OPERATING MANUAL
FOR
DOLBY III LANDFILL
EAST MILLINOCKET, MAINE

PREPARED FOR

MAINE STATE PLANNING OFFICE
AUGUSTA, MAINE

DRAFT

Revised April 2012

SME
Sevee & Maher Engineers, Inc.

ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

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1.0 INTRODUCTION

1. Summary

The State Planning Office (SPO) owns and operates the Dolby III Landfill in East Millinocket, Maine. The Dolby III Landfill has been designed for the disposal of non-hazardous solid wastes generated by the Great Northern Paper Company (GNP) mills in Millinocket and East Millinocket, Maine. The facility has also been approved to accept wood ash from the Signal/Sherman wood-fired electricity generation facility (no longer operational) in Sherman Station, Maine and waste from the former GNP Woodlands operations. The design has been developed to minimize the potential for adverse environmental impact from the facility, to provide for safe and efficient operation, to conform to the rules and regulations of the Maine Department of Environmental Protection (MEDEP) and the MEDEP Board Orders. A copy of the MEDEP Board Orders for the Dolby Landfill is provided in Appendix A.

The Dolby III Landfill is located approximately 2-1/2 miles northwest of East Millinocket on Route 157, immediately to the west of Dolby II Landfill and north of Dolby I Landfill.

1.2 Objective

The objective of this manual is to provide a guide for the operation of the Dolby III Landfill. This manual describes the concept by which the landfill was designed, the responsibilities of landfill operations and supervisory personnel, the waste materials to be landfilled, the annual development of cells and daily methods of operations, site safety and emergency procedures, site maintenance and leachate management, water quality monitoring, landfill closure and general site management of the landfill.

All persons assigned to landfill operation or supervision must be familiar with the contents of this manual and be aware of their roles in operating and maintaining a well run, environmentally sound and cost-effective landfill. The day-to-day operation should focus on issues of personnel safety, minimizing environmental impacts, equipment and construction scheduling, routine inspections, and methods of waste disposal.

The construction, development, operation, and closure of the landfill facility are the ultimate responsibility of SPO and will be performed in accordance with the approved plans and guidelines included herein. Certified copies will be distributed to the people listed in Table 1-1.

TABLE 1-1

LANDFILL OPERATIONS MANUAL
CONTROLLED COPIES LISTING

Maine State Planning Office/Manual Custodian	George MacDonald	OM-1
Sevee & Maher Engineers, Inc.	Matthew Muzzy, P.E.	OM-2
Department of Environmental Protection	Lou Pizzuti Amanda Wade	OM-3 OM-4
Local Technical Support Subcontractor	D&S Engineering	OM-5
Landfill Construction Support Subcontractor	Sheridan D. Smith, Inc.	OM-6

This manual will be reviewed and revised as necessary on an annual basis. Revisions may only be made with the approval of the MEDEP. When becoming aware of a needed revision to the manual, please contact George MacDonald, the Manual Custodian, to make the necessary changes. The manual may not be copied or otherwise distributed unless approved by the Manual Custodian and incorporated into the controlled copies list.

2.0 LANDFILL ORGANIZATION

The organization involved in the operation of the landfill include: 1) Landfill Owner (SPO); 2) Landfill Operator (SME); 3) local technical support (D&S Engineering, Inc. [D&S]); 4) construction support subcontractor (Sheridan D. Smith, Inc. [Smith]); 5) GNP Environmental Department; 6) GNP Maintenance Supervisor; and, 7) GNP haul vehicle drivers. The responsibilities and tasks conducted by these organizations are described below.

2.1 Organization

An organization chart, Figure 2-1, is presented to outline the chain of command.

2.2. Personnel

2.2.1. Landfill Operator. This group is responsible for the daily landfill operations and for securing and assuring compliance with licenses and permits required for operating the landfill. This responsibility includes: 1) initiating site development to maintain continuity of operations; 2) directing the overall scheme and schedule of waste placement; 3) overseeing landfill construction and local technical subcontractors; 4) scheduling closure of completed landfill sections and site maintenance; 5) maintaining site records and tracking landfill disposal volume consumption; 6) conducting site inspections as required; 7) supervising and training personnel; 8) controlling all plant and off-site waste brought to the site; and 9) environmental monitoring of the landfill in accordance with the conditions of the landfill permit.

2.2.2 Construction Support Subcontractor. The construction support subcontractor will be responsible for the day-to-day details of landfill operation. Equipment operators must pass all pertinent information relating to landfill activities to other operators via documentation in the Landfill Log Book. The information may include: waste placement scheme; equipment issues; or a list of tasks still needing completion. In general, operators are responsible for the following: 1) direct placement of the waste by haul vehicle operators;

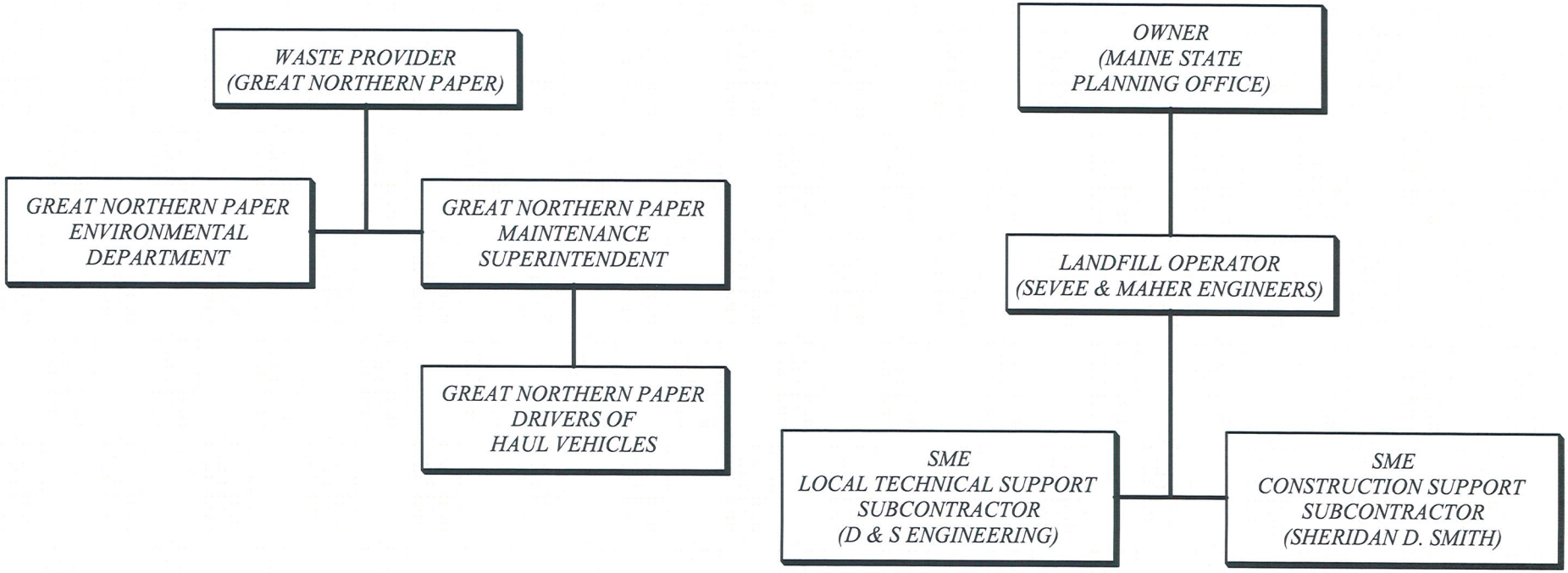

FIGURE 2–1
ORGANIZATION CHART
FOR LANDFILL OPERATIONS
DOLBY LANDFILL
EAST MILLINOCKET, MAINE
MAINE STATE PLANNING OFFICE

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2) spread and compact wastes; 3) apply cover materials as required; 4) inspect equipment and facilities; 5) abide by established safety rules; 6) maintain site security; 7) immediately note and report unusual events or circumstances; 8) maintain such records as may be required;
9) immediately report any imminent environmental impacts to the Landfill Operator;
10) responsible for general maintenance and repair of equipment and structures at landfill;, and
11) strive to maintain neat and efficient operations.

2.2.3 Local Technical Support Subcontractor. The local technical support subcontractors are responsible for daily inspection of the landfill and leachate collection system. This includes: 1) monitor leachate collection system; 2) abide by established safety rules; 3) maintain site security; 4) immediately note and report unusual events or circumstances; 5) maintain such records as may be required; and 6) immediately report any imminent environmental impacts to the Landfill Operator.

2.2.4 GNP Environmental Department. The GNP Environmental Department is responsible for: 1) sampling ash and sludge at the source; 2) monitoring leachate flows to the GNP wastewater treatment plant; 3) directing GNP haul vehicle drivers; and, 4) educating GNP haul vehicle drivers.

2.2.5 Maintenance Superintendent. Coordinate waste deliveries with Landfill Operator. Oversee GNP haul vehicles.

2.2.6 GNP Drivers. The drivers of the haul vehicles, including dump trucks, trash compactors and tankers, will be responsible for the proper handling of their loads. While on the landfill site, they will comply with the provisions of this manual and the directions provided by the Landfill Operator. Problems encountered at the landfill will be reported to the Landfill Operator and to the driver's immediate supervisor.

The drivers also provide site security as they use the access roads on-site. If the drivers see anything or anyone unusual at the site, the drivers will contact the Landfill Operator and/or GNP Environmental Department.

2.3 Training

On an annual basis, operating personnel will be provided training to familiarize them with the relevant sections of the Operating Manual. The goal of the training will be to maintain and enhance environmental quality, protect public health and safety, optimize the landfill operations, minimize operating and maintenance costs, and to ensure compliance with applicable laws and regulations. The Landfill Operator is responsible for coordinating the annual training.

Key operating personnel will be provided with enhanced training to provide in-depth knowledge of the Operating Manual, as well as the key regulatory provisions, which govern, landfill operations. A site-specific training program has been developed. A copy of the course curriculum is attached as Appendix B. A qualified professional with expertise in landfill operations and management will conduct the training. Documentation of completed training will be kept on file in the Landfill Operator's office for at least five (5) years. Annual refresher training (at least 8 hours) will be provided through the annual operator's training, as well as periodic topic-specific crew meetings.

Should job responsibilities or personnel change, new employees will receive the training as soon as possible.

3.0 LANDFILL EQUIPMENT

3.1 Types

Equipment that may be used at the landfill will fall under one of three categories: 1) transporting waste; 2) spreading and compacting waste; or 3) performing support functions. The vehicles and equipment that are used include dozers, dump trucks, tank trucks, spare pumps, and fire fighting and safety equipment. A description of the availability and use of equipment in the three categories is provided below.

1. Transporting Wastes: Dump trucks ranging in size from 12 to 26 cubic yards are used to haul the waste material from the mills to the landfill. A pump station equipped with two, 600-gpm submersible pumps operating in parallel is used to pump leachate from the Dolby III leachate pond through a three-mile high-density polyethylene pipeline to GNP's wastewater treatment facility located at the East Millinocket mill.

2. Spreading and Compacting: A low ground pressure (LGP) dozer is currently used at the landfill to spread and compact the waste material.

3. Support Functions: Temporary or backup equipment for the landfill falls under this category. Temporary equipment may include a hydraulic backhoe or similar equipment for excavation of ditches, a grader to smooth out the access road and prepare the final grade of the site, mechanical seeding equipment after closing portions of the landfill and firefighting equipment. In the event the pump station is out of service, standby or backup equipment, such as gasoline and diesel driven pumps, and 8,500-gallon leachate transport tanker trailers may be available from GNP or can be obtained from a local contractor or merchant.

3.2 MAINTENANCE

Routine maintenance of the equipment is very important in running an efficient operation. All equipment maintenance is the responsibility of the equipment owner. The construction support subcontractor is responsible for maintaining the spreading and compacting equipment (dozer), as well as any additional equipment used for the general maintenance of the landfill. GNP is responsible for maintenance of the waste and leachate haul vehicles. Maintenance schedules should be established by the on-site subcontractors and GNP Maintenance Superintendent, and followed up by the Landfill Operator, GNP maintenance superintendence and records kept of work performed on the equipment. A sample equipment inspection and maintenance form is attached in Appendix C of this manual.

4.0 WASTE CHARACTERISTICS

4.1 Types

The materials listed below are those that the landfill is designed and permitted to accept. No hazardous wastes will be accepted at the landfill. Waste materials that are not included in the categories shown below cannot be disposed of at the Dolby III Landfill. The waste materials permitted for disposal are as follows:

1. Primary Sludge, Millinocket Mill. The Millinocket Mill was shut down on September 3, 2008 for an indefinite period of time. No startup date has been announced for the Millinocket Mill. Historically, primary sludge from the Millinocket mill disposed of at the landfill was estimated at 25,000 – 40,000 cubic yards per year. The primary sludge is essentially pulp fiber material which is lost in the papermaking process. The sludge was normally above 25 percent solids and relatively stable.

2. Secondary Sludge, Millinocket Mill. As noted above, the Millinocket Mill is shut down and no startup date has been announced. Historically, small quantities of secondary biological sludge were generated in the secondary lagoons at the Millinocket mill. Periodically, this sludge was returned to the primary clarifier from which it was removed and dewatered along with the primary sludge. This sludge was delivered to the landfill as a mixture with primary sludge.

3. Primary and Secondary Sludge, East Millinocket Mill. Primary and secondary sludge is mixed and co-dewatered at the mill before transportation and disposal. During July of 2010, disposal of a majority of sludge from the East Millinocket Mill at Dolby Landfill was stopped following a change in disposal locations. A few truckloads are still being disposed of at the landfill on a day-to-day basis for daily cover of the mill trash. Before the change in disposal locations, it was estimated that between 225,000 - 275,000 cubic yards were disposed of at the landfill per

year. From July 2010 to 2011, sludge was used only as daily cover and approximately 1,000 cubic yards per year is disposed of at the landfill.

4. Wood Wastes. GNP's East Operation generates wood wastes from the slasher operations. These wastes include sawdust, short wood pieces, dirt, etc. The East Millinocket mill also generates classifier wastes from its bark boiler. The classifier wastes include dirt, oversize materials (>5"), and undersize materials (<3/8"). These materials cannot be fed to the bark boiler and are brought to the landfill. At this time, this material is no longer being taken to the landfill. When this material was going to the landfill, it was estimated that between 1,000-10,000 cubic yards of wood wastes were brought to the landfill per year.

5. Bark Ash. Bark ash includes bottom and fly ash from the bark boiler in East Millinocket. Starting in April of 2010, the bark ash is no longer being disposed of in the landfill and is being utilized for agricultural purposes. Ash is dumped on the GNP WWTP pad, where it is then mixed with the sludge and then hauled for agricultural purposes. Before the change in bark ash disposal, it was estimated that between 10,000 to 20,000 cubic yards of ash were landfilled per year.

6. General Mill Trash. General mill trash includes lunchroom waste, waste paper, etc. from the East Millinocket mill. This material amounts to approximately 3,000 to 5,000 cubic yards per year. Additionally, some construction debris, demolition debris, and/or rubble may be disposed of at the landfill. General mill trash is covered on a daily basis with sludge or wood waste.

7. Production Related Wastes. A small volume of non-hazardous, production related wastes is generated at the two mills. These wastes will be accepted at the landfill only after permission is obtained from the Landfill Operator. Before accepting the wastes, or any other waste not listed in Items 1-6 above, the Landfill Operator must receive an approved (signed) copy of the Dolby Landfill Special Waste Disposal Permit shown in Appendix D of this manual. Drivers are responsible for delivering the Special Waste Disposal Permit to the operator.

The Landfill Operator will confirm that it is non-hazardous and visually compatible with the landfill operation before granting permission for disposal. An Example of these types of wastes is sulfur, magnesium oxide/hydroxide, and oil-fired boiler ash.

8. Signal/Sherman Ash. MEDEP approval on July 9, 1987 (MEDEP #L-000796-07-J-M) to landfill at Dolby III up to 19,000 cubic yards of wood ash from the Signal/Sherman wood-fired electric generation facility in Sherman Station, Maine. The amount of material received varies based upon production at the generation facility. The Signal/Sherman wood-fired facility has been shutdown and is not operational.

9. Woodlands Operations/Recreational Use West Branch of Penobscot. MEDEP approval on April 19, 1990 (MEDEP #S-0786-7A-0-M) permitting the Dolby III Landfill to receive up to 2,722 cubic yards of solid waste generated from Woodland operations and recreational use in the West Branch region of the Penobscot. Currently, there is no disposal of this waste from Woodland operations within the Dolby Landfill.

10. Recycled Fiber Plant Solid Waste. MEDEP approval on December 14, 1990 (MEDEP #S00796-7A-R-M) to dispose at Dolby III Landfill solid waste generated from the Recycled Fiber Plant at the East Millinocket mill. The recycled fiber plant was shut down in 2011. Currently, there is no waste from this source.

11. Oily Waste. MEDEP approval on August 26, 1999 (MEDEP #S-000796-WU-AF-N) to landfill at Dolby III up to 3,000 cubic yards per year of oily waste generated within the facilities. The amount of material received varies based upon the number of petroleum spill incidents.

    Special waste acceptance procedures (see Appendix E) need to be followed for petroleum-contaminated soil.

12. Precipitated Calcium Carbonate. MEDEP approval on June 16, 2000 (MEDEP #S-000796-WU-AG-N) permitting Dolby III Landfill to receive up to 17 tons per day of precipitated calcium carbonate/lime grits. Because of the Millinocket Mill shutdown September 3, 2008, no precipitated calcium waste has been received at the landfill. No startup date has been announced for the Millinocket Mill.

Because of the changes in sludge and ash disposal, the total amount of solid waste brought to the landfill is approximately 15,000 to 30,000 cubic yards per year (loose truck measure prior to compaction), based on the above estimates. The above estimated cubic yards would change back to historical values (150,000 – 300,000 cubic yards per year) if the sludge and ash were brought back to the landfill for disposal.

4.2 Ongoing Characterization

The chemical makeup of the waste stream from the GNP mills has been relatively constant over time. Therefore, ongoing analysis of the waste is not necessary, except for the annual analysis of the bark boiler ash from East Millinocket. If there is a change in the mill process or a new waste, analysis of the waste will be performed.

Prior to delivery of ash from Signal/Sherman, a TCLP will be performed. If routine deliveries of ash begin, testing will be on an annual basis. The results from that analysis are forwarded to the Landfill Operator prior to issuing approval for ash disposal. The Signal/Sherman wood-fired facility has been shutdown and is not operational.

Prior to the disposal of any petroleum-contaminated soils at the Landfill, a thorough review process will be undertaken by the SPO to verify that the materials proposed for disposal are acceptable. Generators requesting disposal at the Landfill will be directly contacted by a SPO representative, who will gather the appropriate paperwork for the review of the waste directly from the generator. The required paperwork includes sampling and analytical data, as well as a profile sheet identifying the process generating the waste and its physical nature. Disclosure statements will be required from the generator to certify that the samples are representative of the wastes proposed for disposal, the accuracy of the sampling and results, and that no

hazardous wastes are known to be present in the waste. Appendix E contains additional information for procedures for accepting petroleum-contaminated soil.

5.0 LANDFILL DEVELOPMENT

5.1 Development Concept

The landfill consists of access roads, waste containment cells, a leachate collection system, a leachate holding pond, and a pump station and force main to transfer leachate from the pond to GNP's East Millinocket mill wastewater treatment system. The waste containment area is developed by the construction of individual cells. Each cell has the capacity for approximately one year of waste generation at the historic rate of approximately 200,000 cubic yard per year after compaction. By constructing the landfill in cells with limited area, the amount of precipitation requiring collection is minimized.

The landfill operation is an area type method. This means the landfill is operated above grade (above the surrounding land) in lifts (orderly increases in landfill height) to the design elevation. Each lift will be a maximum of 10 ft high. The operating method described is based on the waste volumes and waste characteristics described in Section 4.0.

5.2 Hours of Operation

The Dolby Landfill will operate as needed by GNP mill. The GNP Environmental Department will coordinate operating hours with the Landfill Operator.

5.3 General Operational Details

Several operational details will be common to all waste placement in the proposed phases, as follows:

- First, all outer waste sideslopes should be graded a maximum of 4 feet horizontal to 1 foot vertical (4H:1V). The outer sideslopes are defined as the slope emanating from the perimeter dikes that will receive final cover. Interior waste sideslopes that will be filled against in the future should be graded to a maximum of 3 feet horizontal to 1 foot vertical (3H:1V);

- Second, sludges or other low-strength wastes should not be placed closer than 150 feet from the exterior sideslopes unless they are mixed with higher strength wastes such as construction and demolition debris, ash, etc. At a minimum, these wastes shall be placed no closer than 50 feet from the exterior sideslopes of the facility, when mixed with the higher strength wastes to a consistency that landfill compaction equipment can travel over the mixed waste after it has been placed;

- Third, the working open waste placement area should be limited to one cell or less;

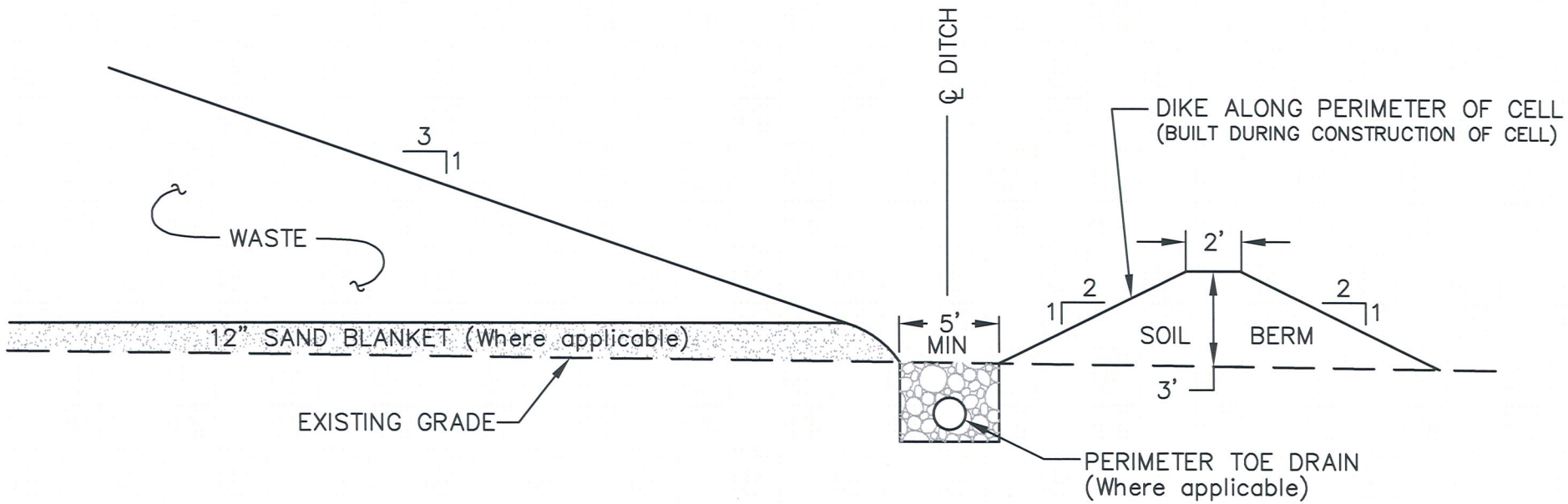
- Fourth, the waste should be spread uniformly over the entire open operational area; and

- Fifth, the waste should be graded in the active fill area to promote positive surface water drainage to the exterior slopes, where it can be collected and transported to the leachate collection basins.

Operational details that are unique to waste placement in Cells 16 and 17 are provided in the Monitoring and Filling Plans included in Appendix F.

5.4 Standard Operational Practices

5.4.1 Control of Operations. Before beginning landfill operations in a new cell, the Landfill Operator and subcontractors should review the sequence of filling and method of access. The location of each cell for the Dolby III Landfill along with the sequence of operation, and method of access to the cells is shown in Section 5.5. A typical cross-section through a cell is shown on Figure 5-1.



NOT TO SCALE

FIGURE 5–1
OPERATING DIKE CROSS SECTION
DOLBY LANDFILL
EAST MILLINOCKET, MAINE
MAINE STATE PLANNING OFFICE

SME
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DWG: DETAILS LMN: CTB: SME–STD REV: 1/20/12

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5.4.2. Waste Placement. Trucks will deliver their loads to an area within the cell designated by the Landfill Operator or construction subcontractor. Movement within the cell will be restricted to the access road and those areas designated by the Landfill Operator.

5.3.1 Landfilling. Landfilling procedures for the waste materials described in Section 4.0 are discussed below.

Primary and Secondary Sludge, East Millinocket Mills. Currently all of the East Millinocket Mill primary and secondary sludge is being disposed of or being utilized at other licensed locations. Only a few loads of sludge are being used as daily cover for the trash that currently still goes to the landfill. If at some point the primary and secondary sludge goes back to Dolby Landfill for disposal, the primary sludge and secondary sludge mixture from the East Millinocket mill will amount to approximately 4,000-5,000 cubic yard per week. Landfilling the sludge is best accomplished by pushing the sludge over the advancing edge of the lift to cover mill trash and ash. The interior operating faces should be maintained at a maximum slope of 3H:1V and outer waste sideslopes at a maximum of 4H:1V.

Wood Wastes. There currently is no wood waste going to the landfill. Wood wastes in the past have been used for daily cover or erosion control in the construction of new cells.

Bark Ash. Currently all of the bark ash is being used for agricultural purposes. If the bark ash goes back to being disposed of at Dolby Landfill, bark ash will amount to approximately 200 to 300 cubic yard per week. This material is best handled under normal conditions by pushing the ash over the advancing edge of the developing lift.

Wood Ash. Wood ash from the Signal/Sherman wood-fired electric generation facility varies in quantity depending upon production at the Signal/Sherman facility. This material is usually wetted down to allow for ease of handling without the respiratory risk of airborne particulates. The Signal/Sherman wood-fired facility has been shutdown and is not operational.

General Mill Trash and Production Related Wastes. These wastes amounts will vary. These wastes should be mixed with co-dewatered secondary sludge wherever possible to add stability to the sludge. These wastes are landfilled by pushing over the advancing edge of the developing lift, and covered on a daily basis. The cover material may be primary sludge, wood wastes, or soil. Soil should only be used if waste materials are not available.

5.4.4 Compaction. Volume reduction will be accomplished by mechanical compaction during landfilling and spreading of the wastes. Normally four or five passes by the dozer over the waste will be sufficient. Further compaction will be accomplished by the compressive weight of subsequent layers of wastes. Historical data from the landfill's waste logs, individual cell design and in-place volume calculation by means of aerial photograph indicate that a 50 to 55 percent volume reduction of waste materials occurs as a result of compaction and compression.

5.4.5 Daily Cover. Wood ash, general mill trash, and production related wastes will require covering to prevent blowing paper and ash and exposed refuse. Materials used as cover include primary sludge, wood wastes, and/or soil. The above wastes will require a minimum of 6 inches of cover on a daily basis.

5.4.6 Intermediate Cover. Historically, intermediate cover at the Dolby III Landfill consisted of, from the bottom up, a 6-inch thick layer of sand, followed by a 15-inch thick layer of till soil or sludge/till mixture till soil Intermediate cover will be applied to areas of the site that have reached final grade and that will remain inactive for more than six months. Intermediate cover will be applied on an ongoing basis. Intermediate cover will completely and effectively cover the solid waste and be graded to limit infiltration and promote runoff (wherever possible runoff will be directed off of the landfill site). Intermediate cover will remain in-place in accordance with the requirements of the approved landfill development plan. See Section 9.0 for details of the intermediate cover system beginning in 2011.

5.4.7 Final Cover System. A final cover system has yet to be approved by the MEDEP for the Dolby III Landfill. However, areas not slated for any further waste placement have historically

received a landfill cover consisting of, from the bottom up, a 12-inch thick layer of sand, followed by a 24-inch thick layer of till soil (greater than 15-percent fines) above Cells 1 through 8, or a mixture of primary sludge and till soil (greater than 15 percent fines) above Cells 9 through 14. See Section 9.0 for details of the proposed final cover system.

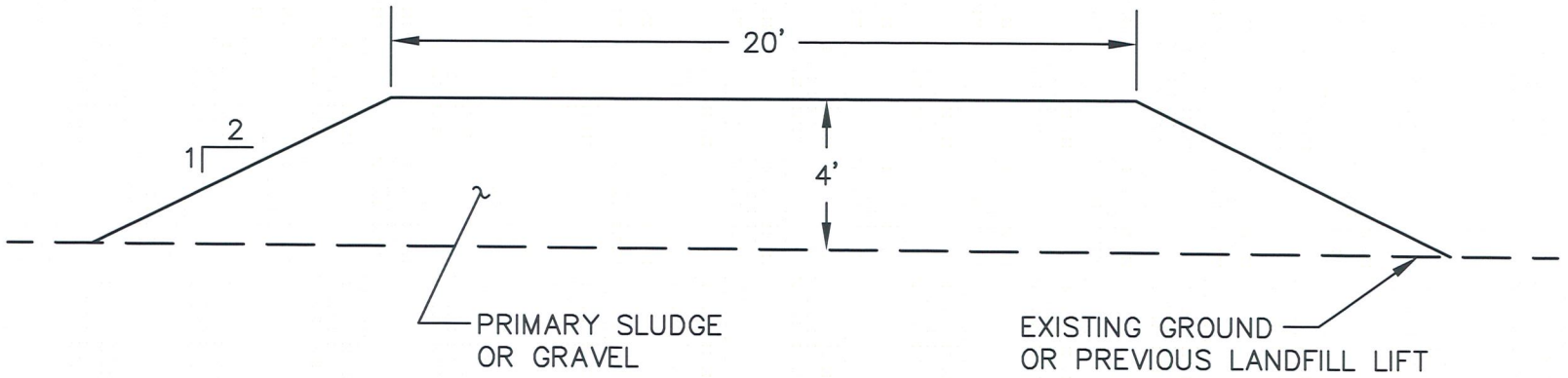
5.4.8 Temporary Access Roads. Temporary access roads within the cell will be constructed from primary sludge or gravel. These temporary roads will be 12 feet wide and 4 feet high. A typical road section is shown in Figure 5-2. When temporary access roads are constructed across the drainage channel formed between the cell perimeter dike and operating dike a culvert or road dip will be installed to maintain uninterrupted flow.

5.4.9 Access Control. Access to the site is from either the main entrance or a utility entrance. The main entrance is a single access road off of Route 157. During the hours the landfill is closed, the main entrance will be controlled with a gate across the access road. The utility entrance is located off a logging road found near the Northeast corner of the landfill property. The utility entrance is only opened when trucks need to enter the landfill from that direction. The gate is checked, at the end of the shift every day, and is locked if the gate was opened during the day.

Officers from the East Millinocket Police Department patrol the landfill perimeter roads at least once every day. During the time that the landfill is open, the Landfill Operator or subcontractors routinely patrol the landfill perimeter roads.

Regulatory Accessibility. Personnel from the MEDEP have the right of access to any part of the site during operating hours, or other reasonable hours, upon presentation of official credentials to the Landfill Operator or subcontractor at the Dolby Landfill facility.

5.4.10 Hot Loads. The chance of hot loads appearing at the landfill is extremely remote. If any burning or smoldering loads are delivered or discovered before they are extinguished, they shall be sent back to their point of origin. No hot loads will be accepted at the landfill. Any hot loads that are unknowingly dumped shall either be allowed to burn out, be extinguished, or be



NOT TO SCALE

FIGURE 5–2
TEMPORARY ACCESS ROAD
DOLBY LANDFILL
EAST MILLINOCKET, MAINE
MAINE STATE PLANNING OFFICE

SME
Sevee & Maher Engineers, Inc.
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

DWG: DETAILS LMN: CTB: SME–STD REV: 1/20/12

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covered with soil to stop the combustion. The loads will not be moved from the point where they are dumped. Excessive amounts of water, which could cause a leachate problem, shall not be used.

5.4.11 Surface Water Management. During landfilling activities, precipitation falling on "interior-phase" haul roads and within the perimeter dike of open landfill areas will be collected as leachate and transported to the holding pond. Perimeter dikes will be used around the active landfill area and leachate pond to divert clean surface water runoff and minimize leachate generation. In addition, the phasing in of daily and final cover will improve the stormwater management capacity of the leachate holding pond and the leachate collection and transport systems by diverting clean surface water runoff. Management of clean stormwater runoff from covered areas will be accomplished by means of surface water control structures, such as riprap drainage channels, culverts, stone check dams, and detention ponds. Clean stormwater runoff is currently discharged from the site through a series of perimeter ditches, culverts, and detention ponds.

Maintenance of the culverts, including sediment removal can be accomplished by means of high pressure water techniques or other methods. Maintenance activities should be implemented if the performance of the culverts becomes significantly diminished or if visual inspections indicate that a potential sediment problem exists.

5.4.12 Dust and Mud Control. Measures shall be taken to control dust in the landfill area and on the access roads surrounding and leading to it. During times of increased dust production (summer months) the Landfill Operator shall make sure that any ash is covered as soon as practical (minimum daily) or preconditioned with water prior to disposal at the landfill. The excessive use of water that would produce a leachate, or the use of waste oil for dust control, is prohibited.

Vehicle travel over waste materials shall be minimized to prevent the tracking of waste onto access roads. When wastes or mud is tracked onto access roads, the Landfill Operator shall initiate clean-up measures. These measures shall include, as appropriate, physical removal of

the wastes with a front-end loader or other suitable equipment. The access roads around the landfill shall be graded every spring and water will be applied when needed.

5.4.13 Litter Control. Litter at the landfill is controlled by daily cover. Each spring, litter is collected from around the landfill.

5.4.14 Gas Management. The wastes placed at the Dolby Landfill do not generate significant amounts of gas. Gas generation is generally caused at pulp and paper landfills when large amounts of secondary, biological sludge are generated. It should be noted that structures where leachate is exposed to the atmosphere, such as manholes and pump stations, would be expected to have some detectable levels of gas (methane or hydrogen sulfide). Gas measurements are obtained from designated structures and monitoring wells as described in Sections 7.7 and 7.8 of the Environmental Monitoring Plan, see Appendix G.

5.5 Cell Development

Historically, the long-term development plan for the Dolby III Landfill has been to subdivide the area into seventeen cells. Cells 1 through 15 and part of Cell 16 of this historical long-term development plan have been developed as described below:

5.5.1 Cells 1 – 8. Intermediate cover (till) has been placed on Cells 1 through 8, as the cells have reached grade.

5.5.2 Cell 9. Intermediate cover (sludge/till mix) was placed on Cell 9 during the summer of 1998.

5.5.3 Cell 10. Intermediate cover (sludge/till mix) was placed on Cell 10 during fall of 2000.

5.5.4 Cell 11. Intermediate cover (sludge/till mix) was placed on Cell 11 during the fall of 2003.

5.5.5 Cells 12. Intermediate cover (sludge/till mix) was placed on Cell 12 during the summer of 2006.

5.5.6 Cell 13. Intermediate cover (sludge/till mix) over Cell 13 was installed concurrently with intermediate cover over Cell 14 during the summer of 2007.

5.5.7 Cell 14. Intermediate cover (sludge/till mix) over Cell 14 was installed concurrently with intermediate cover over Cell 13 during the summer of 2007.

5.5.8 Cell 15. Cell 15 was developed in 2007 atop Cells 11 and 12, north of Cells 6 and 7. Development of Cell 15 consisted of removing cover soil from the north sideslope of Cell 7, and top of Cells 11 and 12, construction of a waste containment berm, installation of a leachate collection catch basin, and installation of a leachate transport pipe. The main access route to Cell 15 is from the south side of the cell over Cell 7.

5.5.9 Cell 16. Cell 16 was developed in 2008 atop Cells 10 and 11, north of Cells 7 and 8. Development of Cell 16 consisted of removing cover soil from the north sideslope of Cells 7 and 8, and the top of Cells 10 and 11, enhancing gravel access road on Cells 7 and 8, construction of a waste containment berm, installation of leachate collection drainage sand and piping, catch basins, and installation of leachate transport piping. The main access route to Cell 16 is from the south side of the cell, over Cell 7. Cell 16 is landfilled concurrently with Cell 15.

5.5.10 Cell 17. Cell 17 is designed to occupy approximately 6.2 acres atop Cells 9 and 10, north of Cell 8. Development of Cell 17 will consist of removing cover soil from the north sideslope of Cell 8, and top of Cells 9 and 10, enhancing gravel access road over Cell 8, construction of a waste containment berm, installation of leachate collection drainage sand and piping, catch basins, and installation of leachate transport piping. The main access route to Cell 17 will be from the south side of the cell, over Cell 8.

In February 2010, the Dolby III Landfill Optimization and Closure Plan was developed to describe the sequence and methods for progressively opening, operating, and closing the landfill after year 2010. The cell optimization plan for the Dolby III Landfill will optimize the use of airspace up to the permitted final waste elevation of 476 feet and includes filling in those areas of the landfill that have settled over the years above Cells 1 through 8, while also

maximizing use of available remaining space within Cells 14, 15, 16, and 17. The cell optimization and closure proposes four development phases, six intermediate closure phases, and five final closure phases. Phase I of this Plan incorporates the concurrent landfill operations in Cells 15 and 16. Phase II will implement the start of Cell 12 development.

The Dolby III Landfill Optimization and Closure Plan is provided in Appendix H.

5.6 Record Drawings

Copies of the record drawings for cell development and closure are kept at the landfill operator's office and in the on-site operator shack. A list of recent record drawings is provided in Appendix I.

6.0 NON-STANDARD LANDFILL OPERATION

6.1 Asbestos Disposal Procedures

6.1.1 Notification and Approval Procedures

Anyone wishing to dispose of asbestos containing waste at Dolby Landfill must contact the Landfill Operator at 829-5016. The Landfill Operator will notify the construction subcontractor to expect a load. The GNP Environmental Department will determine that the material to be disposed of is asbestos containing waste and will issue a permit for disposal of special waste at Dolby Landfill.

Before approving the disposal permit, the Landfill Operator will assure that any personnel on the transport crew who may be exposed to asbestos fibers above the OSHA permissible exposure limit or required to wear a protective respirator during asbestos unloading have been medically monitored according to the requirements listed in the Safety Program, Section 10, and have complied with the requirements of GNP's Respiratory Protection Program.

6.1.2 Site Security and Maintenance. During the unloading of asbestos waste at the landfill, the Landfill Operator will assure that all personnel and equipment not directly involved with the unloading activity are kept at least 100 yards back from the disposal area. After each day's disposal activity, at least 6 inches of compacted non-asbestos cover will be placed over the waste. Within thirty days of the last placement of waste in the cell, it will be covered with at least 18 inches of till or similar material, followed by 6 inches of seeded topsoil.

The disposal location of asbestos waste will be surveyed and recorded on a plan of the landfill and maintained as part of the operational record. The survey will be tied to the benchmark located at the pump station. The record will also include, for each load of waste, the quantity and nature of material disposed, the contractor or operation and department generating the waste and notes of any problems or unusual situations encountered with the load. Asbestos waste disposal locations will be marked on all record drawings of the landfill and described on a landfill survey plan. The dates of the asbestos disposal area's operation and closure, the

coordinates of the area and the location, composition, extent and depth of asbestos waste deposited shall be recorded in the Registry of Deeds.

The asbestos disposal area at the landfill shall be permanently identified and posted as an asbestos waste disposal area in compliance with the requirements of MEDEP Solid Waste Management Rules, Chapter 405.4. All access roads to the landfill will also be posted in compliance with the above-cited rule to indicate the presence of an asbestos waste disposal area at the site.

6.1.3 Disposal Procedures. All friable or potentially friable asbestos waste will be transported to the disposal area in double 6-mil poly bags, labeled in compliance with 29 CFR 1926.58(k). The transport container shall be leak-tight and labeled in compliance with 40 CFR 61.152. Non-friable asbestos may be transported without bagging if the transport container is poly lined and the material is adequately wetted and covered with a minimum 6-mil poly cover, secured to prevent the effects of wind or evaporation on the material during transport. Non-friable asbestos shall not be shredded, crushed, or subjected to any other form of volume reduction prior to placement in the landfill.

The disposal of asbestos will be in a reserved area of the active cell. Prior to placement, a berm will be constructed of primary or co-dewatered sludge to enclose the asbestos and divert surface runoff away from the asbestos during disposal. A 100-foot setback will be maintained from the perimeter slope. The asbestos will be covered with either a paper machine felt (heavy wire mesh), geonet (orange in color) or polyethylene sheeting and sludge daily.

Trucks approaching the asbestos unloading area shall approach as closely as possible before unloading waste. Waste containers shall be lowered to the ground at the disposal area. All containers shall be inspected during unloading and any damaged containers shall be repacked in double 6-mil poly. All protective clothing and poly lining in the container shall be disposed of in compliance with the asbestos disposal requirements of Chapter 405 of MEDEP's Solid Waste Management Rules.

Air monitoring will be conducted each time a shipment of asbestos material is unloaded at the landfill. Monitoring will be conducted on the person on the loading crew with the greatest likelihood of exposure to asbestos fibers during the unloading activity. If regular monitoring reveals, through statistically reliable measurements, that exposure levels are consistently below the OSHA permissible exposure level of 0.1 fiber/cc of air during all types of unloading activities, monitoring frequency may be reduced so long as monitoring that is conducted continues to indicate, at the 95 percent confidence level, that exposures continue to be less than the permissible exposure level for the most heavily exposed individual. Air monitoring records will be maintained at the Landfill Operator's office for 30 years.

If airborne asbestos fiber concentrations are found to be greater than 0.1 fiber/cc of air during any disposal activity, an investigation will be conducted involving the Landfill Operator, construction subcontractor, disposal crew, the generator of the waste involved, GNP Safety Department personnel, and the GNP Environmental Department. Once the cause of the high levels have been determined and corrected, air monitoring will be conducted on every unloading until it is again determined by statistically reliable measurements that airborne asbestos concentrations are consistently below 0.1 fiber/cc.

6.2 Winter Operations

Provisions must be made for snow removal to permit relatively normal operations. Waste placement, grading, and site cleanliness become more important during the winter since waste such as ungraded frozen sludge can become a barrier to traffic movement. The main access road, leading from Route 157 to the interior landfill access roads, will be plowed and sanded to provide safe travel conditions. No intermediate or final cover will be placed over frozen ground. Drainage structures such as catch basins or culverts should be kept free of ice and snow to ensure unrestricted movement of runoff during thaw conditions. The leachate pond level will be raised as discussed in Section 7.0.

6.3 Wet Weather

During very wet weather, access to the working face may become difficult. The working area should be managed so operations will naturally occur near the access road during the fall and spring rainy seasons. This will allow trucks to dump close to the access road and be near the working face for the needs of the operator. Wood wastes or gravel may be used to provide a stable traffic mat to improve movement of vehicles on the landfill.

6.4 Hazardous and Special Waste Handling and Exclusion Plan

This section summarizes procedures for excluding hazardous and non-permitted special waste from the Dolby III Landfill. Means for identification, handling, transportation, and disposal of non-permitted materials are described herein. This plan is prepared in accordance with the Maine SWMRs adopted by the Board of Environmental Protection on August 12, 1998, Hazardous and Special Waste Handling Exclusion Plan (Chapter 401.4(c)(16) and 400.9), and in conjunction with GNP's existing Hazardous materials response plans, previously submitted to the MEDEP for approval.

6.4.1 Identification of Hazardous and Non-Permitted Wastes. The Dolby III Landfill is currently permitted to receive primary and secondary sludge resulting from treatment of process waters generated by its Millinocket and East Millinocket mills. Review of the sludge collection and transportation process reveals little, if any, opportunity for introduction of non-permitted materials to the transport vehicles. The materials described are relatively homogeneous and of consistent visual appearance. The presence of extraneous materials, e.g., paint wastes, drum materials, construction debris, would be immediately obvious. Furthermore, the mill's internal policies forbid the introduction of any materials to the sludge waste streams.

All daily site employees (GNP, Landfill Operator, construction subcontractor, and local technical subcontractor) are trained upon becoming affiliated with the landfill and again at annual refresher training as to what materials are and are not permitted in mill trash. Hazardous and non-permitted wastes are segregated at their point of origin and packaged, stored, and disposed under the direction of the GNP Environmental Department.

At the Dolby III site, the construction subcontractor is required to inspect each load of material which arrives at the site. The operator visually inspects each truckload as it is spread. Spreading is generally accomplished to result in a one-foot thickness adequate to reveal the presence of drums, pails, or other non-permitted material.

The potential for accidental contamination of permitted materials by spills within the mill's process areas has been examined and found to be adequately addressed by the existing spill control and prevention program. Should any non-permitted materials accidentally enter the waste stream, the solid waste can and will be segregated prior to transport to the landfill. This is effectively accomplished since the detention time within the treatment process exceeds the internal reporting timeframe for such incidents. Accidentally contaminated materials are identified, segregated, and handled at the mill under the direction of the GNP Environmental Department.

6.4.2 Handling of Hazardous or Non-Permitted Special Wastes. In the event that unidentified hazardous or non-permitted special wastes are discovered at the Dolby III site, those potentially hazardous materials will be left where discovered and the Landfill Operator will be contacted for qualified handling of the materials in accordance with Hazardous materials response plans.

6.4.3 Storage, Transportation, and Disposal of Hazardous or Non-Permitted Special Waste. Storage of non-permitted materials at the Dolby III Landfill is not allowed. In the event that hazardous or non-permitted special wastes are discovered at the Dolby III site, transportation and ultimate disposal of potentially hazardous materials will be undertaken immediately as directed by the Landfill Operator. Existing procedures, described in the hazardous materials response plans, for identification, packaging, transportation, and disposal will be utilized. Only certified transporters and approved ultimate disposal sites will be employed.

6.4.4 Personal Health and Safety. No special health and safety measures are required for the handling of identifiable, non-hazardous materials. Landfill operators are forbidden to handle unidentifiable materials. Once designated potentially hazardous or non-permitted special

waste, those materials will be avoided. Only trained staff may investigate and handle unidentified materials in accordance with existing procedures for personal health and safety.

6.4.5 Emergency Notification Procedures. All emergency notifications from Dolby III Landfill are made to the Landfill Operator, via the phone located at the on-site Landfill Operator's building. The Landfill Operator is responsible for direction of all subsequent internal and external communications, including contact with the MEDEP. The MEDEP will be notified by telephone the next business day.

7.0 LEACHATE MANAGEMENT

Pursuant to its license, the Dolby III site has a leachate collection system and leachate holding pond. Leachate collected by the collection system is temporarily stored in the holding pond, then pumped through a pipeline for treatment at GNP's licensed East Millinocket mill's wastewater treatment plant. The Dolby III site is designed and operated in a manner that minimizes the production of leachate. Such methods include the use of surface water controls, minimizing the number and size of active landfill areas and application of intermediate and final cover as soon as possible after landfilling ceases in an area. Leachate quality will be monitored three times per year as described in the Environmental Monitoring Plan in Appendix G.

Leachate collection within the cells and transport to the holding pond is by gravity flow. Duties of the Landfill Operator and subcontractors with regard to leachate collection include maintenance of these flow conditions. Surface ditches should be checked for blockages and catch basins checked for overflows daily by the Landfill Operator. The placement of waste must be restricted to maintain a perimeter ditch around the cells; the waste placement must also avoid runoff ponding on the cell surface.

7.1 Leachate Pond, Pump Station, and Pipeline

The dual 60-mil HDPE lined leachate storage pond was constructed downgradient of the landfill in 2007 to replace the previous 36-mil reinforced hypalon lined leachate storage pond in the same location. The leachate pond has an active capacity of approximately 2.389 million gallons, not including a freeboard of two feet. With the freeboard, the pond has a maximum capacity of approximately 3.616 million gallons. A wetwell and pump station is positioned adjacent to the pond for pumping leachate to GNP's process sewer through an approximately three-mile high-density polyethylene (HDPE) pipeline. The pipeline includes a flow meter to measure the amount of leachate pumped and an indicator to monitor the leachate level in the wetwell. The pump station can be isolated from the holding pond by closing a 12-inch gate valve on the inlet pipe.

The pump station is equipped with two, 600-gpm-rated submersible pumps operating in parallel. One pump is activated by storage pond level controllers and will shut off when the pond level drops below the controller's low-level setpoint. The system will normally operate with one pump, but can operate with both pumps if necessary under high leachate flow conditions. The leachate pumps are equipped with running time meters to measure leachate volume handled at the pumps. The pump discharge pressure is also recorded on a circular chart at the pump station.

The circular charts are changed and reviewed by the operators on a daily basis. As of October 2011, the circular charts are stored at the Landfill Operator's office for a period of five years. Charts from dates prior to October 2011 are stored in the GNP Environmental Department. Review of the circular charts entails reviewing the pump pressure plots. Should the plotted lines differ from the normal value, the operators are instructed to shutdown the pumps and notify SME. In the event of a discrepancy between the expected and actual pressure, the pipeline will remain shut down until the problem can be determined.

When the Landfill Operators or subcontractors check the pump discharge pressure readings they will also record the leachate pump running time daily when the pond level is checked. The value will be recorded as close to 9:00 AM as possible. On any day that leachate is being pumped, the Landfill Operator will also check the flow meter readings at the East Millinocket Mill Recycle Plant and landfill pump station to assure that the flows are within the accuracy of the meters. If the flow rates differ by greater than 20 percent, the Landfill Operator will investigate the difference and respond appropriately. Calibration of flow monitoring equipment, and inspection of the pipeline route are means, which may be utilized to determine if the line is leaking. The pipeline route, mostly along existing or discontinued roadways, can be accessed for inspection year round.

The pipeline from the pond to the East Millinocket Mill is approximately 18,000 feet. From the pump station discharge and for approximately 6,500 feet, the leachate line is an eight-inch diameter high-density polyethylene (HDPE) pipe, and functions as a force main. A riser structure at this point marks a transition to a 10-inch HDPE pipeline. The 10-inch line is open to the atmosphere and overflows into a 12-inch HDPE gravity line approximately 500 feet long.

The gravity line then transitions into a 10-inch HDPE pipeline which operates as an inverted siphon for approximately 11,000 feet to a point on the Recycle Fiber Plant pipe bridge where a final transition to gravity flow occurs. A flow meter, at the Recycle Fiber Plant pipe bridge, monitors leachate flow at the mill end of the line. The flow meter is capable of measuring flow to within +2 gallons per minute. From the pipe bridge, the line runs above ground through the mill and discharges to an interceptor sewer manhole between the West Branch of the Penobscot River and the mill. From this point, the flow is directly to the East Millinocket Mill wastewater treatment plant.

Leachate Pond volume as a function of pond depth and elevation are shown in Table 7-1.

TABLE 7-1

LEACHATE POND VOLUME

Pond Depth (ft)	Elevation (ft)	Pond Volume (gal)
1.0	345.0	198,196
2.0	346.0	618,976
3.0	347.0	1,081,472
4.0	348.0	1,577,684
5.0	349.0	2,109,250
5.5	349.5	2,389,061
6.5	350.5 (Emergency Spillway Elev.)	2,978,473
7.5	351.5 (Top of Pond Elev.)	3,615,993

The leachate pond must be maintained at as low a level as possible to allow for the maximum amount of storm flow retention. A minimum three-foot freeboard below the maximum operating level is marked by a painted line around the perimeter of the pond and should be maintained at all times. The Landfill Operator, or security, or the GNP Environmental Department must check the leachate pond level daily and record the leachate level measured in the pump station wetwell, see Section 8.0. Table 7-2 provides a summary of specific locations on the pond and volumes that correlate with the locations.

TABLE 7-2

LEACHATE LOCATION AND CORRESPONDING VOLUME

Location	Leachate Volume (gallons)	Volume Left in Pond to Spillway (Gallons)
Bottom of 24" inlet pipe going into pond	178,000	2,800,000
½ way up the 24" inlet pipe going into the pond	576,000	2,403,000
Top of the 24" inlet pipe going into the pond	1,034,000	1,944,000
Painted orange marker line on liner	1,839,000	1,140,000
Bottom of the pond emergency spillway	2,978,000	0

A leak detection system exists below the leachate pond to monitor the performance of the primary pond liner. The leak detection system consists of a drainage geocomposite layer below the primary 60-mil HDPE geomembrane liner. Beneath the leak detection system is a secondary 60-mil HDPE geomembrane over a geosynthetic clay liner (GCL), followed by a 12-inch compacted clay layer. At the south end of the leak detection system is a 6-inch SDR-17 HDPE perforated pipe placed within a leak detection sump consisting of a 12-inch layer of ¾-inch drainage stone. Sample tubing is provided in the leak detection piping system so that SPO can sample the contents of the leak detection system. All liquid collected in the leak detection system drains to the leak detection sump. The leak detection sump is equipped with a 1/2-HP submersible pump placed at the base of a 6" HDPE sideslope mounted riser pipe and is activated on a transducer system. Discharge from the leak detection layer is recorded through a flow meter placed in-line along the 2" HDPE discharge line from the pump. The pump discharges to the leachate pump station wet well where it is pumped to the mill for treatment. Flow rate and flow total, leak detection level, and running time meter readings are all indicated on the leak detection control panel touch screen housed in the pump station. The leak detection pump is programmed to cycle on when the leak detection level reaches ten (10) inches and turn off when the level reaches zero.

The leak detection sump level and pump activity will be reviewed and recorded by the Landfill Operator or technical support on a daily basis. Should the pump cycle on, the Environmental Department will be notified. The Landfill Operator will record flow measurements and determine if exceedance of the Action Leakage Rate (ALR) for the pond is occurring. An Action Leakage Rate/Response Action Plan exists for the pond and is provided in Appendix J. If exceedance of

the ALR is observed, SPO will take the necessary steps to contact the MEDEP in accordance with the Action Leakage Rate / Response Action Plan.

7.2 Emergency Procedures

7.2.1 Leachate Pond Level Increase. The following steps will be taken to control the leachate level in the leachate pond at Dolby III Landfill before, during, and after periods of heavy rain or snowmelt. These steps will be taken whenever rainfall is predicted to be greater than one-inch in a 24-hour period, and/or when there is the potential for high levels in the leachate pond, such as during a significant snowmelt. Any proposed deviations from this procedure shall be communicated to SME.

- The Landfill Operator will monitor the weather forecast from the National Weather Service and communicate with each other when a rainfall greater than one-inch is predicted in a 24-hour period and/or when there is the potential for high levels in the leachate pond.

- In preparation for heavy rain or snowmelt, the Landfill Operator will clear debris from the 12-inch inlet pipe rack/screen as many times as needed and run the leachate pumps manually (by hand) during the day shift until the pond is dropped to a minimum level. They will consult with SME to determine if the pumps can be safely run by hand during the night without running the pumps dry.

- The Landfill Operator will check with Great Northern Paper (GNP) and Smith to make sure the leachate tanks, tank trucks, and portable leachate pumps are in good working order and ready to be used. GNP will check the availability of drivers for leachate hauling during the night. In the event GNP drivers are not available, Smith will be provided drivers with trucks to haul the tank trailers.

- The Landfill Operator will monitor the pond level during the day shift several times (and at least every three hours) during the night, or during the day on the weekends, from the time the event begins until it is determined that leachate

trucking is required or not. The Landfill Operator will monitor the pond level as follows, from the time the event begins, until it is determined that leachate trucking is not required:

- o Day shift – 2 times per shift
- o Nights and weekends – once per 3-hours

- As soon as the leachate level reaches the white painted line located three feet from the top of the pond on the pond's liner (two feet below emergency spillway), the Landfill Operator will contact the GNP Environmental Department to have leachate truck drivers and portable leachate pumps called in. Trucking will be scheduled to continue as long as necessary, but for a minimum of at least 24-hours beyond the predicted end of runoff event. SME shall notify SPO and the MEDEP that emergency leachate management procedures for the pond have been initiated as soon as leachate tank trucks begin mobilization.

- If the pond level continues to increase rapidly after leachate hauling is enacted, the Landfill Operator will call outside contractor(s) to place more tanker trucks on hauling leachate. Rows of sand bags shall be placed to a height of less than one foot within the leachate pond's emergency spillway to block potential flows through the spillway and temporarily increase the holding capacity of the pond.

- If the pond level still continues to increase rapidly during leachate hauling, the Landfill Operator will consider throttling back the valve on the inlet line to the pond. While the line is throttled, the level in catch basin No. 30 (northwest corner of Cell 9) will be monitored to make sure leachate is not backing up and threatening to overflow at that location. (The valve requires 63 turns to go from fully open to fully closed.)

- The Landfill Operator shall notify MEDEP if an overtopping event from the pond or the catch basin appears likely. As a last resort, the culverts within the ditch around the leachate pond and near the outlet of the emergency spillway can be

blocked with sand bags, inflatable plugs, or wooden gates to temporarily store the leachate in the ditch. The Landfill Operator will monitor the pond at such times for signs of impact to the walls of the pond or the pond underdrain system.

- Once the runoff or leachate level increase has ended, SME will determine when trucking can end and communicate that fact to GNP and MEDEP. The Landfill Operator will fully open the inlet valve to the leachate pond if the valve was throttled back. If the culverts around the pond were blocked and leachate is stored in the perimeter ditch, the leachate shall be pumped back into the leachate management system. The MEDEP shall be notified before the culverts are reopened.

- A critique will be conducted by the Landfill Operator with a purpose of improving future responses.

7.2.2 Leachate Pond Overflow. In the event of leachate pond overflow, measures must be taken immediately to reduce the pond volume as rapidly as possible. These measures include:

a. Shut-off in flow to the pond via gate valve
This measure will provide some temporary relief but extended valve closure during periods of high runoff may cause breaches within the landfill cells and possibly popping of manhole covers.

b. Expand hauling schedule
The leachate pipeline and leachate haul tankers should remove leachate from the pond during an around-the-clock schedule if necessary. Additional tank trucks may need to be employed. (The expanded hauling schedule will be initiated prior to overflow if overtopping appears likely.)

c. Inspection and monitoring
The emergency spillway should be inspected after an overflow for any structural problems. If any problems are noted, corrective measures should be taken

immediately. During periods of overtopping, periodic conductivity readings of the overflow will be taken to evaluate the potential impact of the overflow on surface waters.

7.2.3 Pump Station Failure. In the event of power or pump station failure, leachate can be stored in the holding pond. If the pump station failure will be for a long duration or the pond is within 2 feet of freeboard (2 feet below emergency spillway), portable pumps must be brought to the station. These pumps can lift leachate from the wetwell by a suction line dropped through the manhole cover in the pump station and pump leachate directly into the leachate haul tankers for transport to GNP's wastewater treatment plant.

7.2.4 Leachate Pond Liner Leakage. An Action Leakage Rate/Response Action Plan exists for the Leachate Pond and is provided in Appendix J of the Dolby Landfill Operating Manual. In the event of a pond liner leakage above the action leakage rate (ALR) of 20 gallons per acre per day (gpad), the MEDEP will be notified and the Landfill Operator will drain the leachate pond to visually inspect the liner and repair any damaged areas within 15 days and no more than 30 days if conditions allow after MEDEP notification. The action leakage rate (ALR) represents the minimum rate of leakage that will trigger interaction between SPO and the MEDEP to determine the appropriate response action for the leakage. If visual inspection and subsequent repairs fail to reduce the seepage rate below the ALR, SPO will consult with the MEDEP regarding other remedial measures.

A report will be prepared for submission to the MEDEP which summarizes the results of the inspection and repairs and submit it to the MEDEP for its review. The report will contain recommendations for continuation of the sampling program.

7.2.5 Winter Leachate Pond Operations. During winter months, the pond will be kept at an elevation of 6 inches above the normal operating level. This is done to avoid ice damage to the inlet pipe boots.

8.0 INSPECTION AND MAINTENANCE

Maintenance schedules, responsibilities, and outside service response should be anticipated and planned in as much detail as possible. The Landfill Operator will work out procurement and maintenance support needs to avoid delays, downtime, and frustration.

8.1 Facility Maintenance Needs

8.1.1 Access Roads. The access roads should be constructed and maintained as all-weather roads. Drivers and operators should report deterioration to the Landfill Operator for repairs. Prompt attention to road repairs is the most cost-effective approach since deterioration becomes more rapid once it has begun. The roads will be plowed and sanded during the winter to provide safe travel. Because the access roads within the fill area may be constructed with waste wood, they may require maintenance more often than permanent roads. The Landfill Operator or subcontractors shall inspect the roads and perform any immediate repairs necessary.

8.1.2 Erosion Control Systems. The erosion control systems of berms, ditches, and sedimentation ponds are designed to settle out eroded soils and provide a more controlled release of uncontaminated surface waters to the environment. This function causes the systems to accumulate sediment which will require removal. The Landfill Operator and subcontractor will inspect the ditches and sedimentation ponds on a quarterly basis for accumulation and make arrangements for it to be cleaned out as necessary. Removed sediment may be used as cover material for the landfill operations.

8.1.3 Surface Diversion Ditches. The surface diversion ditches will be inspected daily by the Landfill Operator and subcontractor. Some damage can be expected, especially within a year of each cell's construction. Reconstruction, replacement of riprap, cleaning, reseeding, etc., may be necessary to keep the ditches functioning as required. Any deterioration will be noted by the Landfill Operator and subcontractor and repair measures instituted immediately by the Landfill Operator. If surface water impacted from landfill waste is observed within the clean

surface water ditches, the Environmental Department will be contacted immediately. Measures will be taken immediately to contain and collect the water for treatment.

8.1.4 Landfill Maintenance. Landfill operator and subcontractor will inspect all perimeter access roads and permitted waste areas at the beginning of each day. Erosion of cover, excessive settlement, other necessary regrading, blockages of leachate or drainage pathways or the need to reseed areas are some items that warrant attention and maintenance. Operators shall perform any repairs necessary to maintain the integrity of the landfill until the Landfill Operator can be notified.

8.1.5 Leachate Collection Pond. The leachate collection pond will be inspected quarterly by the Landfill Operator to check the integrity of the liner. On an annual basis, the leachate pond will be drained so that the liner and piping systems may be inspected and any sediment deposits on the liner and inlet/outlet pipes can be cleaned.

8.1.6 Leachate Collection Piping. The leachate collection piping system will be inspected on a quarterly basis by the Landfill Operator. Inspection of the leachate collection/leachate transport system components shall include the following:

- Inspect interiors of the leachate collection/transport manholes located in the leachate collection perimeter header pipe and in the transport pipe south of facility. These manholes will be inspected to check leachate flow. Reduction in flow is anticipated with time, but also may indicate plugging in upgradient pipe. Backup of leachate in manhole may indicate plugging in downgradient pipe.

- Inspect leachate collection/transport catch basin and manhole exteriors and interiors for concrete deterioration (cracks or leaks). The condition of the concrete walls within each manhole will be noted and those sections in poor or leaking condition will be replaced. Siltation or dirt buildup will be cleaned as necessary.

- Inspect runoff collection risers tied into leachate collection pipes and clean if necessary.

- Inspect the drainage catch basins, culverts, and ditches for blockages and overflows.

- All valves shall be checked for proper positioning and functioning.

The perimeter transport piping system will be flushed annually with water to keep the pipes clear. The water will be pumped into the manholes located at the upper reaches of the transport piping. A drawing showing the layout of the perimeter transport pipes is included in Appendix K.

8.1.7 Leachate Collection Manholes. The Dolby II and Dolby III Landfill leachate collection systems' concrete manholes and catch basins will be thoroughly inspected for deterioration and leakage on a yearly basis, by the Landfill Operator. Inspection of each leachate collection manhole shall include the following:

- The exterior will be visually inspected for signs of concrete deterioration (cracks, holes, flaking, leachate seeps, etc.). The exterior condition of each manhole will be documented on the attached manhole inspection form.

- The manhole cover will then be removed so a visual inspection using a flashlight to view the interior of the manhole from the top can be completed. Similar to the exterior, the interior of each concrete manhole will be visually inspected for signs of concrete deterioration (cracks, holes, flaking, leachate seeps, etc.) on the walls, pipe penetrations, and barrel joints. The interior condition of the concrete within each manhole will be documented on the attached manhole inspection form.

- Confined space entry will not be necessary to complete the manhole interior inspections, however, inspecting personnel will be required to monitor the

ambient air (Hydrogen Sulfide) and follow all health and safety practices during the inspection in accordance with the facility's health and safety program.

- A photo of each manhole's exterior and interior should be taken if possible as a record during the inspection and filed with each manhole's inspection form.

The inspection and maintenance plan, inspection schedule, manhole and piping location plan, and manhole inspection form are included in Appendix K.

8.1.8 Pump Station. Periods of low leachate generation provide an excellent opportunity to schedule preventative maintenance on the pump station. The periods can be expected during mid-summer to early fall. The pumps will be inspected for wear and necessary parts replaced. The pump instruction manual will be consulted for recommended lists of spare parts and schedule of lubrication.

CAUTION: Anyone working in the pump pit must follow confined space entry procedures.

8.1.9 Leachate Transport Pipeline Cleaning. The leachate pipeline from the leachate pond to the mill will be cleaned every three years or when flow rates drop by more than 100 gpm (i.e., when flow rates are 450 gpm or less).

8.1.10 Monitoring Well Inspection and Maintenance. Monitoring wells at the Dolby Landfills (Dolby I, II, and III) are inspected three times a year. In addition, SPO has retained the services of an environmental consultant to perform annual inspections of the landfill, including monitoring wells, to assure that the operations of the site are in compliance with the Operating Manual and MEDEP regulations. Inspection and maintenance procedures include:

- Inspection of surface seals for heaving, settling, and cracks;

- Immediate repair or replacement of wells found to be damaged or destroyed; and

- Annual monitoring well depth determinations.

8.1.11 Well Abandonment Procedures. Certain monitoring wells will require removal or abandonment as landfill operations progress. Shallow wells (less than 15 feet deep) shall be excavated, completely removed and backfilled. Where possible, the exterior metal casing shall be salvaged and remaining well components (PVC pipe, wellscreen, etc.) disposed of within the active area of the landfill. Backfill shall be placed in 12-inch layers and compacted to a density of not less than 85 percent of the maximum density for the full width and depth of the excavation.

Abandonment of deeper monitoring wells (greater than 15 feet deep) shall be as follows:

- Removal of all material installed in the original borehole including casing, screen and annular materials to the greatest extent possible. Any casing that cannot be withdrawn intact must be ripped and perforated and then augered or washed from the hole.

- Sealing by pressure injection from bottom to top with cement bentonite or other appropriate material to within five feet of the ground surface. The upper five feet may be backfilled with native material, and the entire site must be restored to a safe condition. Where the surrounding geologic deposits are highly permeable, alternative methods of sealing may be required to prevent migration of grout into the surrounding formation.

- Documentation of the abandonment through a written description of the procedures employed, drilling methods and depths, borehole depth and volume and type of sealant employed is required.

8.1.12 Mowing. Annual mowing of seeded areas of the landfill shall be parallel to the contours to avoid rutting and erosion problems. SPO will subcontract mowing of the landfill.

8.1.13 Geotechnical Monitoring. A qualified geotechnical engineer shall conduct an annual site visit to visually inspect the waste streams, filling areas, and landfill sideslopes. Stability

monitoring reports will be prepared by the geotechnical engineer following each landfill inspection. At a minimum, the reports will describe the observed condition of: the exterior landfill slopes; the current filling area; the waste streams being delivered to the landfill; and the surface water drainageways used to divert runoff from the landfill surface. Each stability monitoring report will include recommendations for modifications to the landfill operation in terms of waste placement and drainage, as necessary. Other geotechnical recommendations for maintaining/improving slope stability at the landfill will also be made in the reports, if appropriate. Should the waste streams or slope grades at the landfill change appreciably from those described in the above referenced report, the waste shear strength and landfill stability will be re-evaluated accordingly. During development of Cells 16 and 17, regular geotechnical monitoring of these areas will be completed in accordance with the Monitoring and Filling Plans for Cells 16 and 17 provided in Appendix F.

8.2 Inspections

Inspections form the basis for successful and efficient landfill operations. Routine maintenance described above shall be performed by Landfill Operator (through subcontractor). Comprehensive inspections should be made, at a minimum, in the spring and fall by the Landfill Operator. Items that will be checked during each inspection are:

- erosion,
- siltation in drainage systems,
- access road,
- leachate pond and pump station,
- visible sections of the leachate collection main, leachate transport pipeline, and manholes,
- safety equipment,
- integrity of cover over closed portions of the landfill,
- monitoring wells, and,
- quality of vegetative cover.

Each inspection, including any noted problems and the corrective measures taken to resolve those problems, shall be recorded in the landfill's operations log. A copy of the inspection log forms are in Appendix L.

9.0 LANDFILL CLOSURE

In February 2010, the Dolby III Landfill Optimization and Closure Plan was developed to describe the sequence and methods for progressively opening, operating, and closing the landfill after year 2010. This phased Landfill Closure Plan is provided in Appendix H.

The principle goals of the closure plan for the landfill are: 1) to minimize infiltration into the landfill and generation of leachate after closure; 2) to operate with a minimum of maintenance; 3) promote drainage from its surface while minimizing erosion; and 4) provide a final cover system suitable for developing grass.

9.1 Intermediate Closure System

Intermediate cover will be applied to areas of the site that have reached final grade and that will remain inactive for more than six months. Intermediate cover will be applied on an ongoing basis. Intermediate cover will completely and effectively cover the solid waste and be graded to limit infiltration and promote runoff (wherever possible runoff will be directed off the landfill site). Intermediate cover will remain in-place in accordance with the requirements of the approved landfill development plan. The intermediate cover will consist of the following components:

- a 40-mil HDPE textured geomembrane; underlain by
- a 6-inch sand drainage/gas transmission layer and passive gas vents.

Common to each phase of intermediate closure will be the following:

- Clean water diversion berms will be constructed beneath the liner system to manage quantities and directions of surface runoff from the liner and prevent runoff from entering open landfill areas;
- Existing riprap aprons, where applicable, will be removed prior to placement of the intermediate cover system;
- Landfill perimeter ditches accepting runoff from the liner will be appropriately graded and lined for stormwater and erosion control;

- Existing areas with soil/sludge mixed cover (i.e., Cells 9 through 14 sideslopes) will be grubbed to remove vegetation prior to placement of intermediate cover components;
- Existing areas of soil cover (i.e., Cells 1 through 8) will have the 24-inch barrier soil layer stripped and stockpiled for re-use in the final cover system. The existing 12-inch drainage sand layer of the current cover system will remain for in-place for re-use as the minimum 6-inch thick sand drainage/gas transmission layer required beneath the 40-mil HDPE textured geomembrane.

The proposed intermediate cover system is designed to remain in-place until final covering is implemented, with the intent that the materials could transition into use as the base layers of the proposed final cover system.

9.2 Final Closure System

A final cover system has yet to be approved by the MEDEP for the Dolby III Landfill. At least one year prior to the anticipated start of final closure at the Dolby III Landfill, SPO shall submit a complete final closure application prepared in accordance with the provisions of Maine SWMR Chapter 401.5. The proposed final cover system will include the following components:

- an 18-inch thick layer of a soil medium suitable for growing grass; underlain by
- a geocomposite drainage net; underlain by
- a 40-mil HDPE textured geomembrane (installed as part of the intermediate cover); underlain by a minimum 6-inch thick sand drainage/gas transmission layer (installed as part of the intermediate cover).

Construction of the final cover system above Cells 1 through 8 will consist of use of the existing in-place cover system components, as follows:

- The 24-inch vegetated soil layer of the current cover system will be stripped and stockpiled during the intermediate cover construction, then re-used to build the 18-inch vegetated layer specified above the geocomposite drainage net.

- The 12-inch drainage sand layer of the current cover system will remain for reuse as the minimum 6-inch thick sand drainage/gas transmission layer specified beneath the 40-mil HDPE textured geomembrane during intermediate cover construction.

9.3 Closure Procedures

The following subsections describe various closure procedures and activities that will be performed prior to/during each closure phase.

9.3.1 Grading and Construction. Prior to each closure phase, a surveyor will check elevations to assure that the proper grades exist, and there are no low areas or depressions within the surface. The surveyor will also check the perimeter slopes to be sure they are as shown on the engineering plans for each phase. Spot elevations will be taken in the surface runoff ditches to assure that proper drainage slopes exist.

Areas receiving final or intermediate cover placement that are vegetated shall be stripped of existing topsoil material prior to cover construction.

The first stage of cover construction will be placement of a passive gas collection system of 4-inch perforated gas collection piping and gas collection sand placed above the waste and below the intermediate cover, which vent above grade through 4-inch 'cane-style' solid-wall gas venting pipe.

Runoff from the closure areas will be separated from active waste cells and previously closed cells through a system of perimeter containment berms. Clean water diversion berms will be constructed of granular soils beneath the liner system to manage quantities and directions of surface runoff from the cover during each phase. The geomembrane cover will be anchored on the outside of the perimeter containment berms or seamed to the geomembrane cover of abutting closure areas (where applicable). A system of lined terraces, downspouts, and pipe drains will be constructed on the sideslopes receiving final cover to prevent erosion of the vegetative layer in the final cover system.

9.3.2 Seeding. All areas that have been covered with final cover will be seeded. Seeding will normally occur between April 30 and September 15. Surface runoff control measures such as drainage ditches, berms, riprap aprons, and culverts are to be constructed prior to seeding. All grading and covering must also be finalized prior to seeding. Raking, disking, or other acceptable means should be used to loosen the top layer of soil before seeding. Lime (3 tons/acre or as needed based on testing) and fertilizer (1,300 pounds/acre of 10-10-10) will be harrowed or disced into the soil to a minimum depth of 3 inches on slopes equal to or flatter than 3:1. Secondary sludge and bark ash may be substituted for the fertilizer and lime. If the entire site is hydroseeded, lime, fertilizer and seed may be applied simultaneously. The seeding mixture to be used should be as shown in Table 9-2.

TABLE 9-2

SEEDING MIXTURE (OR EQUAL)

Fertilizer 717.01(a)	
Agricultural Ground Limestone 717.02	
Tall Fescue (RY 31)	59%
Red Fescue	25%
Red Top	5%
Ladino Clover	3%
Annual Rye Grass	8%
Seed mixture shall be sown at the rate of 120 pounds per acre.	

The seed will be applied uniformly with a cyclone seeder, drill, cultipack seeder, or hydroseeder. These are equivalent methods of seeding. Seed should not be planted if there is danger of a frost shortly after seed germination. Maximum seeding depth is 1/4 inch when using methods other than hydroseeding. If hydroseeding is not used, then an equivalent alternative method of seed placement will be utilized.

9.3.3 Stormwater Management and Erosion Control. Stormwater will be managed at the facility through a series of channels, ditches, and culverts. The closed facility will shed surface water along engineered channels to the perimeter of the landfill aided by a series of lined downspouts designed to limit erosion. The lined channels will outlet into channels surrounding the facility which flow to a number of detention ponds and ultimately into Partridge Brook Flowage/Dolby Pond. The following procedures will be followed for erosion control on the seeded areas:

- Slopes - On 4:1 sideslopes or steeper, the seeding shall be applied by hydroseeding with an asphalt binder or excelsior matting to control erosion. Berms shall divert runoff from the top of the slopes to established ditches.

- Drainage ditches - The grass-bottomed drainage ditches will be seeded in the same manner as the remainder of the site. The same mulch specified above will be placed in these areas. Lightweight biodegradable paper, plastic, or cotton nettings will be placed within the ditches to anchor the mulch.

9.3.4 Mowing. To prevent deep-rooted tree growth, the closed portions of the landfill and drainage ditches will be mowed at least once per year. Mowing will occur after July 15 to protect ground-nesting birds. Annual mowing of closed out areas of the landfill shall be parallel to the contours to avoid rutting and erosion problems.

10.0 SITE SAFETY

The Landfill Operator will be responsible to maintain safe and secure working conditions for all landfill personnel by assuring that landfill personnel follow applicable state and federal safety and health regulations and mill safety policies. The GNP Safety Department should also be consulted if questions arise regarding site safety. Employee safety will be dependent on strict adherence to these rules along with proper training on the use of equipment by each employee.

10.1 Safety Equipment

Safety equipment includes such items as first aid kits, fire extinguishers, gas meters, H2S meter, escape masks, and two-way radios. All vehicles will be equipped with a first aid kit and fire extinguisher, and in addition, a first aid kit is available at the landfill building. These items should be checked regularly and maintained for efficient use.

A gas meter with the ability to measure levels of hydrogen sulfide is available from the Landfill Operator. A gas meter capable of measuring levels of methane and oxygen is also available from the Landfill Operator. The meters shall be used under certain circumstances. Those situations include the following:

- Prior to descending into any structure, that is part of the leachate collection system, the level of oxygen in the structure must be measured to assure life-sustaining levels of oxygen. In addition, anyone working in these structures will always have help available above with emergency air. The worker descending will have a safety harness. There is always the possibility of less than adequate oxygen or accumulation of methane or hydrogen sulfide in the wetwell. Air can be forced into the wetwell with a fan and ducting.

- Odors may occasionally be emitted by the decomposing wastes. When odors are detected, the construction subcontractor should call the local technical support subcontractor to come out to the landfill and measure the levels of hydrogen sulfide, methane, and odorous compounds in the air. If the levels are

unsuitable, the operator will temporarily close the landfill and contact the Landfill Operator.

Maintenance of the safety equipment is very important and must be done on a regularly scheduled basis. Safety equipment checklist is shown in Appendix L.

Two-way radios will provide the vital element of communication between the operator and the mills. Sludge hauling trucks and the dozer are equipped with two-way radios and personnel instructed in their use. In addition, a radio is located at the landfill building.

10.2 Fire Prevention

Due to the nature of the wastes, fire within the landfill is highly unlikely. Should a fire occur, it can usually be extinguished by smothering with a blanket of earth or wet sludge. If necessary, firefighting services are available from the Town of East Millinocket. The fire department should be notified in advance to alert them of the nature of hazard at the landfill so they may be appropriately prepared and equipped.

10.3 Site Safety Program

Reference Appendix M of this document for additional site safety procedures related to asbestos for the Dolby III Landfill.

11.0 RECORD KEEPING

11.1 Maintenance Records

Maintenance records of the landfill operation are important for future planning purposes and for cost accounting. A list of the records that should be kept is as follows:

1. Leachate Hauling. Daily records of the amount of leachate stored in the holding pond (estimated from the pond water elevation) and the amount of leachate pumped and/or hauled shall be kept by the Landfill Operator. These records can be used to determine the total amount of leachate collected, the unit hauling costs, and storm capacity remaining in the lagoon. A typical leachate accounting sheet is shown in Appendix N of this manual.

2. Waste Quantity. Estimates of the amount of waste hauled (by truck count, e.g.) will help estimate the rate at which cells are filling and the capacity requirements of future cells. The types of waste landfilled and any unusual characteristics should be noted. These records are filled out by the Landfill Operator and subcontractor and maintained by the Landfill Operator. A typical waste accounting form is shown in Appendix N of this manual.

3. Volume Measurements. Periodically, in-place volume measurements shall be taken at the landfill to confirm the quantity estimates and to measure the pre-closure consolidation of the landfill.

4. Daily Log. A day-to-day diary should be kept by the construction subcontractor to note any problems with the landfill operation and resolution of those problems and other items such as visitors to the landfill. Construction subcontractor daily logs are collected daily by the Landfill Operator.

11.2 Annual Report

SPO will submit an annual report to the MEDEP. This report will include the following information:

11.2.1 General

- A summary of activity at the landfill during the past year; and
- Verification of compliance with approved Operating Manual, licenses, and regulatory requirements.
- Dolby Landfill compliance self-audit checklist, see Appendix C.

11.2.2 Operations

- A summary of type, quantity, and origin of waste;
- Estimates of landfill capacity used and remaining;
- Description and estimate of the amount of cover material used;
- Changes in operations;
- Proposed changes in operations;
- Summary of responses to spills, fires, accidents, and unusual events;
- Updated cell development plans with narrative;
- Copies of reports for hazardous and special waste handling and exclusion plan;
- Results of inspections and testing; and,
- Description of any system failures and repairs.

11.2.3 Facility Site Changes

11.2.4 Monitoring

- Evaluation of surface water and groundwater data;
- Evaluation of quantity and quality of leachate;

- Evaluation of gas monitoring results;
- Evaluation of air monitoring results;
- Evaluation of monitoring well conditions;
- Changes to monitoring program; and
- Evaluation of stability and settlement data.

11.2.5 Financial Assurance

- Letter of financial assurance for landfill closure.

11.3 Location

Copies of operational records shall be maintained at the operator's shack on-site, with additional information at the office of the Landfill Operator. The additional records include annual reports, the Operating Manual, Inspection Forms, and any other pertinent documents.

12.0 ENVIRONMENTAL MONITORING

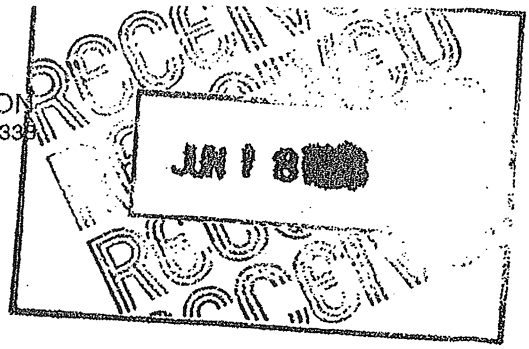
Environmental monitoring of the landfill is the responsibility of the Environmental Department. The landfill's Environmental Monitoring Plan, dated April 2012, describes the environmental monitoring required at the landfill. A copy of the EMP is attached in Appendix G.

APPENDIX A

DOLBY LANDFILL BOARD ORDERS

DOLBY II BOARD ORDERS

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



DEPARTMENT ORDER

IN THE MATTER OF

GREAT NORTHERN PAPER, INC.	)	SOLID WASTE ORDER
EAST MILLINOCKET, PENOBSCOT	)	
COUNTY, MAINE	)	
DOLBY II VERTICAL EXPANSION	)	
#S-000796-WD-AC-A	)	
(APPROVAL WITH CONDITIONS)	)	AMENDMENT

Pursuant to the provisions of 38 M.R.S.A. Sections 1301 et seq., 06-096 CMR Chapters 400 et seq. (Solid Waste Management Regulations, effective May 1989), and 06-096 CMR Chapter 567 (Rules for Land Application of Sludge and Residuals, effective April 21, 1985 and last amended January 4, 1994), the Department of Environmental Protection has considered the application of GREAT NORTHERN PAPER, INC. ("GNP") with its supportive data and other related materials on file and FINDS THE FOLLOWING FACTS:

1. APPLICATION SUMMARY

A. Application: GNP has applied for an amendment to Department Order #S-000796-07-B-M, dated June 20, 1984, which approved an operations manual and a final closure system for its Dolby II Landfill ("Dolby II") in East Millinocket, Maine.

B. History: On June 20, 1984, GNP received approval from the Department for a revised operations manual and final closure plan for Dolby II . Dolby II was closed in 1987 when construction of Dolby III, located adjacent to Dolby II, was completed. Dolby II, located off Route 157 in East Millinocket, was approved by the Department in June 1978 for the disposal of primary sludge from the Millinocket and East Millinocket mills, secondary sludge from the East Millinocket mill, wood wastes, municipal solid waste, bark boiler ash, and coal ash. All of these wastes except coal ash were disposed of in Dolby II. Slopes were graded to 3 horizontal to 1 vertical prior to the placement of final cover. Two feet of soil final cover material with an average fines content of 25% was placed over all areas where disposal occurred; the approved final elevation of the landfill was 474 feet MSL. Over time, the landfill has settled such that the top slopes are presently approximately 1%. During an August 31, 1995 inspection of the landfills, Department staff ("staff") suggested GNP apply for approval to dispose of additional waste on top of Dolby II and place solid waste in the unfilled

area between Dolby II and Dolby III, to re-establish acceptable minimum grades on Dolby II and reduce the overall leachate generation from the facility.

C. Summary of Proposal: GNP has submitted a request for a vertical expansion at Dolby II. GNP proposes to remove the existing final cover from Dolby II, install additional leachate collection piping and berms, utilize the first cell of the landfill for a large-scale trial sludge composting operation on a short term basis until Cell 9 of Dolby III has reached it disposal capacity, dispose of approximately 345,000 yards of its primary and secondary sludge, wood waste, bark ash, wood ash, and mill trash in Dolby II, and then place final cover on Dolby II. The proposed final elevation of Dolby II is 490 feet MSL.

The proposal is described in the application, dated April 19, 1996 and prepared by GNP's Environmental and Engineering Departments and GNP's consultant, Sevee and Maher Engineers, Inc. The application includes a set of bid-ready construction drawings, dated February 9, 1996 and revised February 20, 1996; Technical Specifications for the project; and a Supplemental Design Report, dated April 1996.

2. PROJECT DESIGN

GNP proposes to remove the existing final cover system from the upper sideslopes and top of Dolby II, dispose of waste from its Millinocket and East Millinocket mills in order to attain a minimum grade of 8%, and then reapply a final closure system. Dolby II is a non-secure landfill which ceased taking waste in 1986. It is located adjacent to and upgradient of the active Dolby III landfill. Substantial settlement of the waste has occurred since closure was completed; the proposed regrading project will remediate the problems associated with the nearly flat landfill top surface. As described in Finding of Fact 3, GNP proposes to install a leachate collection system which will convey the majority of the leachate generated by the regrading project to the Dolby III leachate pond. GNP does not propose a secure landfill design for the expansion, however staff comment that the proposed regrading project will improve the performance of Dolby II by decreasing the quantity of leachate generated; runoff of precipitation will be enhanced,

thus infiltration of water will be reduced. The final cover system applied will be less permeable than the existing final cover system. The Department finds that GNP has proposed a design for this project that complies with the intent of the regulations in that it the regrading of Dolby II will remediate documented post-closure maintenance problems at the landfill.

3. LEACHATE MANAGEMENT

The leachate collection system proposed for the Dolby II regrading project was designed to accommodate a 25-year/24-hour storm event without overflowing the existing Dolby III catchbasins. It will function through control of the operational sequence for the landfill and the size of the various catchment watershed areas within Dolby II.

GNP proposes to install a berm around the entire upper area of Dolby II where the additional solid waste will be disposed, and a containment dike to divide the upper area into 2 parts. A series of drainage manholes will be placed along the berm to collect leachate generated from the regrading project, which will then be directed to the leachate collection piping system that will surround most of the perimeter of Dolby II. The perimeter leachate collection system, a portion of which is already in place from an earlier project, will direct the leachate from the regrading project, plus any shallow leachate seepage collected, to catchbasins located along the perimeter of Dolby III, which convey leachate into the Dolby III lined leachate storage pond. Leachate in the storage pond is conveyed directly to GNP's East Millinocket Mill wastewater treatment plant by pipeline.

The Department finds that GNP proposes an adequate leachate management system for the Dolby II regrading project.

GREAT NORTHERN PAPER, INC.	4	SOLID WASTE ORDER
EAST MILLINOCKET, PENOBSCOT	)	
COUNTY, MAINE	)	
DOLBY II VERTICAL EXPANSION	)	
#S-000796-WD-AC-A	)	
(APPROVAL WITH CONDITIONS)	)	AMENDMENT

4. CONSTRUCTION

GNP's application includes Technical Specifications for the project and a set of bid-ready drawings, as described in Finding of Fact 1(C). above. Staff reviewed and commented on the construction documents, and the comments were satisfactorily addressed through the Supplemental Design Report and a May 15, 1996 telephone conversation.

The Department finds that GNP will construct the Dolby II regrading project in conformance with current accepted practices, provided GNP constructs the project as approved or receives approval from the Department for any changes to the specifications or drawings prior to the changes being implemented, and provided GNP submits record drawings for the regrading project once construction has been completed.

5. EROSION AND SEDIMENTATION CONTROL

The technical specifications and the construction drawings for the project, and the operations manual for the Dolby landfills, include the erosion and sedimentation control measures to be used during construction and operation of the regrading project. The Department finds that GNP has adequately provided for erosion and sedimentation control, provided that disturbed areas are adequately maintained until stabilized by vegetation.

6. WATER QUALITY

GNP has continued to monitor water quality in the vicinity of Dolby II since its closure. GNP proposes to upgrade the Dolby II ground water quality monitoring program to that approved for the Dolby III landfill by adding hardness to the list of parameters. The wells monitoring the performance of Dolby II are sampled at the same frequency as and in accordance with the sampling and analytical plan approved for Dolby III. Water quality in the vicinity of Dolby II has improved since an interceptor trench was installed around much of the Dolby II landfill in 1990 and 1991. It is expected the regrading project will result in further improvement in water quality. The Department finds that the Dolby II regrading project will result in continued corrective action at the facility in that the project

will remediate existing conditions which result in excessive infiltration of water into Dolby II.

7. OPERATIONS MANUAL

A. Waste Disposal: GNP proposes to operate the Dolby II regrading area in accordance with the procedures outlined in the Dolby III operations manual. Individual cells will be sized and constructed with capacity for approximately 1 year of waste generation. Waste will be placed in lifts between 5 and 10 feet high. Access into the disposal area will be provided by upgrading an existing access road into Dolby II. A culvert beneath and a dip in the access road will prevent leachate from exiting from the access road area.

Staff comment that the current Dolby III operations manual is contained in the pending relicensing application for Dolby III, and that any changes made to the operations manual will also apply to the operation of the Dolby II area.

B. Cover Material: GNP proposes to place cover on the Dolby II regrading area as described in the current Dolby III operations manual. Wood ash, bark ash, and mill waste will receive daily cover consisting of 6 inches of primary sludge, wood waste and/or soil. A final cover consisting of, from bottom to top, 12 inches of sand, 18 inches of till soil with greater than 15% fines passing a No. 200 sieve, and 6 inches of vegetative growth medium is proposed to be placed in areas of Dolby II that have reached final grade. Staff comment that GNP received a variance from the Department for this final cover system at the time the Dolby III landfill was licensed (June 13, 1984) but that staff and GNP are currently discussing an alternative final cover system in order to reduce the infiltration of water through the final cover system. The issue will be resolved through during the completion of processing of the Dolby III relicensing application. As noted in paragraph A, above, changes in the Dolby III operations manual will also apply to the operation of the Dolby II area.

B. Composting: GNP submitted procedures for the operation of a trial composting operation on top of Dolby II between June and October, 1996, as the disposal

capacity of Dolby II will not be needed until Cells 7, 8, and 9 of Dolby III are filled. GNP proposes to compost the sludge from its East Millinocket wastewater treatment plant in accordance with the applicable requirements of 06-096 Chapter 567 to determine the feasibility of a large scale composting operation for this waste. Staff have reviewed and commented on the proposed composting trial. GNP is preparing revisions to the composting portion of the operations manual based on staff comments. Staff comment that the revisions must be reviewed and approved prior to commencement of composting on Dolby II.

The Department finds that GNP proposes to operate Dolby II in accordance with an operations manual prepared in accordance with the applicable requirements of Chapters 401.6 and 567 of the Department's regulations, provided GNP operates and closes out Dolby II in accordance with any changes agreed upon for Dolby III, and submits revisions to the composting operational procedures as requested by staff.

8. ESCROW CLOSURE ACCOUNT

GNP does not propose to establish an escrow closure account for the regrading project on Dolby II. GNP will remain responsible for the costs associated with post-closure care and monitoring of Dolby II. Staff comment that the regrading of Dolby II is anticipated to provide disposal capacity for only 1.5 years, and that the project will greatly enhance the final closure of the Dolby II landfill. Staff also comment that an escrow closure account for Dolby III, which will ultimately blend into the closed Dolby II landfill, is being established by GNP. The Department finds that it is not necessary for GNP to establish a separate escrow closure account for the regrading project on Dolby II.

9. OTHER SOLID WASTE FINDINGS

The Department finds that the Dolby II landfill does not overlie a significant sand and gravel aquifer, and the proposed regrading project does not pose an unreasonable risk to a fractured bedrock aquifer or to a significant sand and gravel aquifer it does not overlie.

GREAT NORTHERN PAPER, INC.	7	SOLID WASTE ORDER
EAST MILLINOCKET, PENOBSCOT	)	
COUNTY, MAINE	)	
DOLBY II VERTICAL EXPANSION	)	
#S-000796-WD-AC-A	)	
(APPROVAL WITH CONDITIONS)	)	AMENDMENT

GNP has numerous source reduction and recycling measures in place at its East Millinocket and Millinocket mills, including the composting and land application of its sludges.

All other findings with respect to title, right, or interest, financial capacity, traffic, soils, stormwater runoff, odors, noise and air quality previously made by the Department for the Dolby II landfill remain unchanged.

BASED on the above FINDINGS OF FACT the Department makes the following CONCLUSIONS:

1. GNP's proposed vertical expansion on the Dolby II landfill will not pollute any water of the State, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance.

2. GNP has demonstrated that the volume of the waste and the risks related to its handling and disposal have been reduced to the maximum practical extent by an effective source reduction and recycling program prior to disposal or utilization.

THEREFORE, the Department APPROVES WITH THE FOLLOWING CONDITIONS GREAT NORTHERN PAPER COMPANY's application for an amendment to Department license #S-000796-07-B-M.

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

2. In addition to the specific erosion control measures described in the application and this Order, GNP shall take all necessary actions to ensure that its activities or those of its agents do not result in noticeable erosion of soils on the site during construction and operation of the Dolby II regrading project.

3. A final construction report prepared by a Maine Registered Professional Engineer certifying that the project was constructed in accordance with the approved drawings and specifications shall be submitted to the Department within 30 days after completion of the construction. The report shall include record drawings for the project.

GREAT NORTHERN PAPER, INC.	8	SOLID WASTE ORDER
EAST MILLINOCKET, PENOBSCOT	)	
COUNTY, MAINE	)	
DOLBY II VERTICAL EXPANSION	)	
#S-000796-WD-AC-A	)	
(APPROVAL WITH CONDITIONS)	)	AMENDMENT

4. GNP shall not change any specification related to the design or construction of this project without submitting a Change Order to the Department and receiving approval, verbal or written, from the Department for the change.

5. GNP shall submit to the Department for its review revisions to the composting operations manual prepared in response to staff comments on the manual.

6. GNP shall operate Dolby II in accordance with the most recently approved operations manual for Dolby II.

7. GNP shall place the same upgraded final cover system on Dolby II as is approved for Dolby III within its relicensing order.

DONE AND DATED AT AUGUSTA, MAINE, THIS Twelvth DAY

OF June, 1996.

FILED
JUN 14 1996
BOARD OF ENVIR... STATE ... PROT.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
for Edward O. Sullivan, Commissioner

PLEASE NOTE ATTACHED SHEET FOR APPEAL PROCEDURES

Date of initial receipt of application: May 2, 1996
Date of application acceptance: May 23, 1996
Date filed with Board of Environmental Protection:

This order prepared by Cynthia W. Darling, Bureau of Remediation & Waste Management

XCD27489/CWD/llg

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

DEPARTMENT ORDER
IN THE MATTER OF

GREAT NORTHERN PAPER COMPANY East Millinocket, Maine DOLBY LANDFILL #2 #L-000796-07-E-M	)	SITE LOCATION and SOLID WASTE ORDER FINDINGS OF FACT AND ORDER

Pursuant to the provision of Title 38, M.R.S.A., Section 483, and 1304, the Department of Environmental Protection has considered the application of GREAT NORTHERN PAPER COMPANY with its supportive data, staff summary, agency review comments, and other related materials on file and finds the following facts:

1. By Orders of the Board of Environmental Protection dated September 22, 1976 and June 14, 1978, Great Northern Paper Company was granted a permit pursuant to the Site Location and Solid Waste Laws to construct and operate a solid waste landfill known as Dolby II located in East Millinocket.

2. On April 8, 1982 and June 20, 1985, Great Northern obtained Board approval for a revised operating manual and final closing plan for Dolby II (Order #26-0796-19170 and L-000796-07-C-A).

3. Pursuant to Section 7b of the Solid Waste Management Rules, Chapter 400, Great Northern is now requesting a variance from closing requirements specifically those requirements concerning the application of final cover material over the entire site within 60 days of final disposal (Section 5A, Chapter 401). Great Northern estimates that cover material reserves are such that only 8.6 acres of 27 acres left to be closed, can be covered. They are currently applying for Site Location approval for a cover pit which will provide cover for the remaining 18.4 acres.

4. Postponement of final closure of the remainder of the Dolby II site until a cover source is approved is not expected to cause any significant environmental impact since leachate at the site is routinely collected and treated and the areas where final cover has not been applied have been covered with daily cover. In addition specific "sensitive" portions at the landfill will be covered first with available material. These areas include the northern side slopes and exposed areas east of the landfill drainage divide.

5. All other facts relevant to financial capacity, traffic control, fitting the development harmoniously into the natural environment and soils remain the same as reviewed under Board Order #26-0796-19170.

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 solid waste disposal, the control of offensive odors, and the securing and maintenance of sufficient and healthful water supplies.

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

GREAT NORTHERN PAPER COMPANY
East Millinocket, Maine
DOLBY LANDFILL #2
#L-000796-07-E-M

2 SITE LOCATION ORDER
)
)
) FINDINGS OF FACT AND ORDER

D. The applicant has made adequate provision for fitting the development harmoniously into the existing natural environment and the development will not adversely affect existing uses, scenic character or natural resources in the municipality or in neighboring municipalities.

E. The proposed development will be built on soil types which are suitable to the nature of the undertaking.

F. The proposed development will not pose an unreasonable risk that a discharge to a significant ground water aquifer will occur.

G. Postponement of final closure of Dolby II will not contaminate any bodies of water, water supplies, or groundwater and meets with the intent of the Solid Waste Management Rules, provided that closure of the remaining uncovered portions of the landfill site begins immediately after a cover pit is approved and constructed and is completed within 1 year thereof.

THEREFORE, the Department APPROVES WITH THE ATTACHED CONDITIONS the application of GREAT NORTHERN PAPER COMPANY for a variance to Section 5A, Chapter 401 of the Solid Waste Management Rules pertaining to closure of the Dolby II Landfill in East Millinocket, Maine, in accordance with the following conditions:

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

2. Closure of the remaining uncovered portions of the landfill site shall begin immediately after a cover pit is approved and constructed and shall be completed within 1 year thereof.

DONE AND DATED AT AUGUSTA, MAINE, THIS 16TH DAY OF APRIL, 1986.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: K.C. Young
Kenneth C. Young, Jr., Commissioner

PLEASE NOTE ATTACHED SHEET FOR APPEAL PROCEDURES....

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

DEPARTMENT ORDER

IN THE MATTER OF

GREAT NORTHERN PAPER CO. East Millinocket, Maine DOLBY II INTERIM EXPANSION #L-000796-07-D-M	))))	SITE LOCATION OF DEVELOPMENT ORDER CONDITION COMPLIANCE

Pursuant to the provision of Title 38 M.R.S.A., Section 483, the Department of Environmental Protection has considered the application of GREAT NORTHERN PAPER CO. with its supportive data, staff summary, agency review comments, and other related materials on file and finds the following facts:

1. The applicant received conditional approval from the Department of Environmental Protection by Order dated June 20, 1985 for project #L-000796-07-C-A. The applicant has submitted evidence concerning compliance with Special Condition #3 of this Order.

2. Special Condition #3 reads as follows:

   "Within 30 days of the date of this order the applicant shall submit detailed plans for review and approval of the Commissioner, which show how cell 30A will be contoured so that it can be used as a leachate collection basin after closure of the landfill. This plan shall include a narrative describing how this area will be operated and how any leachate generated will be disposed of.

3. The nature of the evidence submitted is as follows:

   A plan dated July 18, 1985 and subsequently amended November 27, 1985 and February 26, 1986 detailing how a leachate collection basin will be constructed and operated in order to collect leachate after closure of the Dolby II landfill.

BASED upon the above Findings, the Department CONCLUDES that GREAT NORTHERN PAPER COMPANY has complied with Special Condition #3 of the Department Order #L-00796-07-C-A dated June 20, 1985.

DONE AND DATED AT AUGUSTA, MAINE, THIS 21ST DAY OF MAY, 1986.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Hollis McFarlin
for Kenneth C. Young, Jr., Commissioner

PLEASE NOTE ATTACHED SHEET FOR APPEAL PROCEDURES....

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

DEPARTMENT ORDER

IN THE MATTER OF

GREAT NORTHERN PAPER CO. East Millinocket, Maine DOLBY II INTERIM EXPANSION #L-000796-07-D-M	))))	SITE LOCATION OF DEVELOPMENT ORDER CONDITION COMPLIANCE

Pursuant to the provision of Title 38 M.R.S.A., Section 483, the Department of Environmental Protection has considered the application of GREAT NORTHERN PAPER CO. with its supportive data, staff summary, agency review comments, and other related materials on file and finds the following facts:

1. The applicant received conditional approval from the Department of Environmental Protection by Order dated June 20, 1985 for project #L-000796-07-C-A. The applicant has submitted evidence concerning compliance with Special Condition #3 of this Order.

2. Special Condition #3 reads as follows:

   "Within 30 days of the date of this order the applicant shall submit detailed plans for review and approval of the Commissioner, which show how cell 30A will be contoured so that it can be used as a leachate collection basin after closure of the landfill. This plan shall include a narrative describing how this area will be operated and how any leachate generated will be disposed of.

3. The nature of the evidence submitted is as follows:

   A plan dated July 18, 1985 and subsequently amended November 27, 1985 and February 26, 1986 detailing how a leachate collection basin will be constructed and operated in order to collect leachate after closure of the Dolby II landfill.

BASED upon the above Findings, the Department CONCLUDES that GREAT NORTHERN PAPER COMPANY has complied with Special Condition #3 of the Department Order #L-00796-07-C-A dated June 20, 1985.

DONE AND DATED AT AUGUSTA, MAINE, THIS 21ST DAY OF MAY, 1986.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Hollis McFarlin
for Kenneth C. Young, Jr., Commissioner

PLEASE NOTE ATTACHED SHEET FOR APPEAL PROCEDURES....

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

DEPARTMENT ORDER

IN THE MATTER OF

GREAT NORTHERN PAPER COMPANY East Millinocket, Maine DOLBY LANDFILL #2 (Interim Expansion) #L-000796-07-D-M	)	SITE LOCATION OF DEVELOPMENT ORDER CONDITION COMPLIANCE

Pursuant to the provision of Title 38, M.R.S.A., Section 483, the Department of Environmental Protection has considered the application of GREAT NORTHERN PAPER COMPANY with its supportive data, staff summary, agency review comments, and other related materials on file and finds the following facts:

1. The applicant received conditional approval from the Department of Environmental Protection by Order dated June 20th, 1985 for project #L-000796-07-C-A. The applicant has submitted evidence concerning compliance with Special Condition #2 of this Order.

2. Special Condition #2 reads as follows:

   "Within 30 days of the date of this Order the applicant shall submit a plan for review and approval of the Commissioner, showing the locations of at least two monitoring wells to be installed along the northern boundary of the site between the established survey baseline and the western boundary of Phase III. This plan shall include a cross section of the wells showing all pertinent details and a monitoring plan indicating test parameters. The wells shall be installed at the locations specified in the plan at least 15 days after it receives the Commissioner's approval.

3. The nature of the evidence submitted is as follows:

   A plan dated July 18, 1985 and subsequent submittals dated November 27, 1985 outlining the locations of two proposed monitoring wells installed along the northern boundary of the site as well as a cross section of a typical well and a list of parameters well samples will be analyzed for.

BASED upon the above Findings, the Department concludes that GREAT NORTHERN PAPER COMPANY has complied with Special Condition #2 of the Department Order #L-000796-07-C-A dated June 20th, 1985.

DONE AND DATED AT AUGUSTA, MAINE, THIS 30TH DAY OF JANUARY, 1986.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: K.C. Young
HENRY E. WARREN, Commissioner

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

DEPARTMENT ORDER

IN THE MATTER OF

GREAT NORTHERN PAPER COMPANY	)	SITE LOCATION ORDER
East Millinocket	)	
DOLBY LANDFILL #2 (Interim Expansion)	)	
#L-000796-07-C-A	)	FINDINGS OF FACT AND ORDER

Pursuant to the provision of Title 38, M.R.S.A., Section 483, and 1304 the Department of Environmental Protection has considered the application of GREAT NORTHERN PAPER COMPANY with its supportive data, staff summary, agency review comments, and other related materials on file and finds the following facts:

1. By Orders of the Board of Environmental Protection dated September 22, 1976, and June 14, 1978, Great Northern Paper Company was granted a permit pursuant to the Site Location and Solid Waste Laws to construct and operate a solid waste landfill known as Dolby II located in East Millinocket

2. Dolby II accepts municipal refuse, mill trash, mill sludge, bark ash, and clarrifier waste and contains approximately 30 acres. Eleven of these 30 acres were closed out, regraded, covered and seeded in July of 1981. The remaining 19 acres are partially filled and were to be brought to final grade by April of 1985. The facility is currently operating on a limited basis until the Board approved Dolby III landfill becomes operational September 1. Great Northern has had to request that the Towns of Millinocket, East Millinocket and Medway use another disposal site in order to conserve volume at Dolby II.

3. Due to a surveying error, Dolby II has also been inadvertently expanded in some areas as much as 220 feet north and northeast of the permitted boundaries.

4. On April 8, 1982, Great Northern obtained Board approval for a revised operating manual and final closing plan for Dolby II - (order #?6-0799-19170). It now requests to amend this manual and plan to allow for an interim expansion of the landfill until Dolby III becomes operational, and also requests after-the-fact approval for the inadvertent expansion of the site beyond its permitted boundary.

5. Amendments to the operating manual and final closing plan consist of proposed additions to include a fourth phase to the landfill. Phase IV includes the inadvertent expansion area along with additional adjacent property which together comprise cells 28A, 29A, and 30A. As described on drawing YB 15035 dated January 12, 1985. Cell 30A will be maintained for operation as a leachate collection pond and perimeter road and no landfilling is proposed there. Phase IV will also be developed over completed Phase II and III cells of the landfill to obtain increased volume. The northern side of the Phase IV area will be graded to a 5 to 1 slope and the entire area will be graded from the 5 to 1 slope to an elevation of 460 feet along the perimeter road and then to a 3 to 5 percent slope over Phase II and III. One foot of primary sludge will be placed over Phase III and it will be covered with 2 feet of final cover consisting of fill with a minimum of 15 percent fines, and then seeded.

6. Great Northern has not proposed to install additional monitoring wells to monitor groundwater down gradient of Phase IV. They have also not submitted detail plans showing how cell 30A will be contoured so that it can be used as a leachate collection basin after closure of the landfill.

7. All other facts relevant to financial capacity, traffic control and scenic character remain the same as reviewed under Board Order #26-0796-19170.

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 solid waste disposal, the control of offensive odors, and the securing and maintenance of sufficient and healthful water supplies.

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

D. The applicant has made adequate provision for fitting the development harmoniously into the existing natural environment and the development will not adversely affect existing uses, scenic character or natural resources in the municipality or in neighboring municipalities.

E. The proposed development will be built on soil types which are suitable to the nature of the undertaking.

F. The proposed development will not pose an unreasonable risk that a discharge to a significant ground water aquifer will occur.

G. Disposal of solid waste in Phase IV will not contaminate any bodies of water , water supplies, or groundwater provided that the applicant install at least 2 monitoring wells on the northern boundary of the site between the established survey baseline and the western boundary of Phase III and provided that the applicant submits detailed plans showing how cell 30A will be contoured so that it can be used as a leachate collection basin after closure of the landfill.

H. The proposed amendments to the operating manual and closing plan meets with the provisions of Chapter 400 of the Solid Waste Management regulations.

GREAT NORTHERN PAPER COMPANY	3	SITE LOCATION ORDER
East Millinocket	)	
DOLBY LANDFILL #2 (Interim Expansion)	)	
#L-000796-07-C-A	)	FINDINGS OF FACT AND ORDER

THEREFORE, the Department APPROVES WITH THE ATTACHED CONDITIONS the application of GREAT NORTHERN PAPER COMPANY to construct on interim expansion area at its Dolby II landfill in East Millinocket, Maine, and amend its operating manual and final closing plan to reflect its expansion, in accordance with the following conditions:

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

2. Within 30 days of the date of this Order the applicant shall submit a plan for review and approval of the Commissioner, showing the locations of at least two monitoring wells to be installed along the northern boundary of the site between the established survey baseline and the western boundary of Phase III. This plan shall include a cross section of the wells showing all pertinent details and a monitoring plan indicating testing parameters. The wells shall be installed at the locations specified in the plan within 15 days after it receives the Commissioner's approval.

3. Within 30 days of the date of this order the applicant shall submit detailed plans for review and approval of the Commissioner, which show how cell 30A will be contoured so that it can be used as a leachate collection basin after closure of the landfill. This plan shall include a narative describing how this area will be operated and how any leachate generated will be disposed of.

4. Once the landfill has been closed the applicant shall submit as built plans of the final grading of the site within 30 days of final closure.

DONE AND DATED AT AUGUSTA, MAINE, THIS 20th DAY OF JUNE, 1985.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
HENRY E. WARREN, Commissioner

PLEASE NOTE ATTACHED SHEET FOR APPEAL PROCEDURES....

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

DEPARTMENT ORDER

IN THE MATTER OF

GREAT NORTHERN PAPER CO.	)	SOLID WASTE ORDER
East Millinocket, Maine Penobscot Cty.	)	
DOLBY LANDFILL #2	)	OPERATING MANUAL REVISIONS
L-000796-07-B-M	)	Findings of Fact and Order

After reviewing the project file which includes the application with its supportive data, agency review comments, and other related materials on file with regard to the above noted project, under provisions of Title 38, M.R.S.A., Chapter 13, the Solid Waste Management Act and the Regulations adopted hereunder, the Department finds the following facts;

1. By Orders of the Board of Environmental Protection dated September 22, 1976 and June 14, 1978, Great Northern Paper Company was granted a permit pursuant to the Site Location and Solid Waste Laws to construct and operate a solid waste landfill known as Dolby II located in East Millinocket,

2. The applicant now proposes to alter the operating manual dated December 1981, and approved 8 April 1982, as follows:

   a) apply 50 tons per acre of secondary sludge as a soil amendment prior to the seeding of the final cover;

   b) a reversal in the order of filling in cells 30 through 35.

After review of the above noted facts, the Department makes the following conclusion:

1. These amendments to the operating manual dated December 1981 meets with the provisions of Department of Environmental Protecton Regulation Chapter 400, the Solid Waste Management Regulations.

THEREFORE, the Department APPROVES the revised operating manual for Great Northern Paper Company's Dolby II Landfill in East Millinocket, Maine subject to the Standard Conditions of Approval.

DONE AND DATED THIS 20TH DAY OF JUNE, 1984.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
HENRY E. WARREN, Commissioner

PLEASE NOTE ATTACHED SHEET FOR APPEAL PROCEDURES ....

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AUGUSTA, MAINE 04330

BOARD ORDER

IN THE MATTER OF

GREAT NORTHERN PAPER CO. East Millinocket, Maine, Penobscot County DOLBY LANDFILL AREA NO. 2 #26-0796-19170 (Amended)	)	Site Location and Solid Waste Order FINDINGS OF FACT AND ORDER

After reviewing of the project file and related materials submitted with regard to the above noted application, under provisions of Title 38, Sections 483 and 1304, the Board finds the following facts:

1. The project involves the development of a sanitary landfill for solid wastes from the Towns of Millinocket, East Millinocket and Medway and the wastewater sludge from Great Northern Paper Company Waste Treatment Plants.

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

3. The applicant has made adequate provision for solid waste disposal, the control of offensive odors, and the securing and maintenance of sufficient and healthful water supplies provided that modifications to plans are made for final elevation, side slopes, lifts and depth of final cover.

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

5. The applicant has made adequate provision for fitting the development harmoniously into the existing natural environment and the development will not adversely affect existing uses, scenic character or natural resources in the municipality or in neighboring municipalities.

6. The proposed development will be built on soil types which are suitable to the nature of the undertaking.

7. Disposal of solid waste at this site will not contaminate any bodies of water, water supplies, or groundwater provided that water quality background data is submitted and a groundwater monitoring program is implemented.

8. Disposal of solid waste at this site will not constitute a hazard to health or safety or create a nuisance to any person.

THEREFORE, the Board approves the application of Great Northern Paper Co. to develop Dolby Landfill Area No. 2 in East Millinocket, Maine subject to the following terms and conditions:

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

2. Plans shall be submitted showing final elevation with a 2-5% slope to shed water.

3. Cross sections shall be submitted indicating 3 vertical to 1 horizontal side slope while maintaining completed elevation at the edge of landfill at 455'.

4. Applicant shall modify the operation manual to deposit sludge in lifts no greater than 10' plus an additional 1-2' of granular cover soil.

5. Final cover shall be increased to 24" with 18" or material containing 15% fines and 6" of organic loam.

6. A groundwater monitoring program shall be developed.

7. Water quality background data shall be submitted.

8. Provisions for conditions 2-7 shall be submitted for review and be approved by the Commissioner prior to construction of the site.

DONE AND DATED AT AUGUSTA, MAINE, THIS 14TH DAY OF JUNE, 1978.

BOARD OF ENVIRONMENTAL PROTECTION

BY: H E Warren
Henry E. Warren, Chairman

PLEASE NOTE ATTACHED SHEET FOR APPEAL PROCEDURES....

DOLBY III BOARD ORDERS

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

DEPARTMENT ORDER

IN THE MATTER OF:

STATE OF MAINE EXECUTIVE DEPARTMENT,	)	**LICENSE**
STATE PLANNING OFFICE'S ACQUISITION OF	)	**TRANSFERS**
KATAHDIN PAPER COMPANY LLC'S	)	**(Solid Waste;**
LANDFILL FACILITIES IN EAST MILLINOCKET, MAINE	)	**Site Location)**
(#S-000796-WR-AJ-T)	)	

Pursuant to Maine's Environmental Laws, 38 M.R.S.A. § 481, *Site Location of Development*, and §§ 1301-1319Y, *Maine Hazardous Waste, Septage and Solid Waste Management Act*; Maine Department of Environmental Protection (Maine DEP) regulations promulgated pursuant to these laws; the *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2 (April 1, 2003), and the *Solid Waste Management Rules: General Provisions,* 06-096 CMR 400 (July 20, 2010) Maine DEP has considered the application of the Maine State Planning Office ("SPO") with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. APPLICATION SUMMARY

A. Application. SPO submitted an application to Maine DEP for the transfer of Department licenses. The application sought to transfer to SPO all active Maine DEP licenses, as defined in 06-096 CMR 2.1(J), any modifications, condition compliance orders, all other approvals, and all applications pending in the name of Katahdin Paper Company LLC ("KPC") relating to landfill facilities (collectively, "the Dolby landfills") in East Millinocket, Maine. A schedule of licenses and applications pertaining to the transfer is set forth in Appendix A. Maine DEP accepted SPO's license transfer application as complete for processing on September 7, 2011. Under 06-096 CMR 2.21(C)(1), before Maine DEP may transfer a license a transferee is required to demonstrate to Maine DEP's satisfaction the financial and technical capacity and intent to: (a) comply with all terms and conditions of the applicable license, and (b) satisfy all applicable statutory or regulatory criteria. SPO currently proposes to use the remaining licensed capacity of Dolby III for the disposal of waste streams from the Millinocket and East Millinocket mills recently purchased by the GNP Companies. The waste streams will be similar in type and volume to the wastes delivered to the Dolby III landfill when KPC owned the same 2 mills.

B. History

(1) The Transaction. On August 30, 2011, KPC and SPO entered into an Acquisition Agreement, signed by Glen McMillan, Vice President, KPC; and Darryl N. Brown, Director, State Planning Office, under which SPO will acquire from KPC the Dolby landfills and related properties.

(2) Operations. Solid wastes generated by the integrated pulp and paper mills in

Millinocket and East Millinocket, including sludges from paper making and wastewater treatment, wood ash, and boiler residues, are disposed of in a 70 acre landfill that consists of 17 disposal areas, or cells, known as the Dolby III Landfill. Dolby I and Dolby II landfills have been filled and are closed. The last Maine DEP inspection report for the landfills is dated September 8, 2011 and includes a listing of the required and recommended actions needed at the facility.

2. TRANSFER REQUIREMENTS

The following information regarding SPO was submitted in support of the transfer application:

A. Full Name and Address. The full name and address of the new owner is:

Maine State Planning Office
19 Union Street, 38 State House Station
Augusta, Maine 04333-0038

B. Title, Right, or Interest. Pursuant to Revolve 2011 chapter 90, the Maine legislature authorized SPO to acquire the Dolby landfills by donation. SPO submitted a copy of the Acquisition Agreement between KPC and SPO which set forth that acquisition. Upon closing, all the assets subject to that agreement, including the Dolby Landfills licensed by Maine DEP, will be transferred to SPO.

C. Financial Capacity and Intent. SPO has the authority to seek legislative appropriations, as necessary, to fund SPO's anticipated operations and maintenance of the facility. According to 06-096 CMR 400(11), the State of Maine is not required to provide financial assurance for closure and post-closure care.

D. Technical Capacity and Intent. SPO has contracted for immediate landfill management and operations with an engineering firm familiar with the site and having the technical ability to manage the operation and maintenance of the landfill. SPO intends subsequently to contract with the same, or other, qualified service provider on a long-term basis. SPO intends to invite Maine DEP to participate in the review of long-term potential service providers responsible for environmental compliance in order to satisfactorily demonstrate their technical ability to operate the facilities in accordance with applicable laws, regulations, and license and permit conditions.

F. Solid Waste Facility Disclosure. The disclosure statement provided by SPO in accordance with the *General Provisions*, 06-096 CMR 400.12, of Maine's Solid Waste Management Rules reveals that the agency has no record of any criminal, civil violations or consent decrees in the last five years. Based on the information provided, Maine DEP finds that SPO has presented clear and convincing evidence that the information supplied meets the intent of State law and regulations.

G. **Municipal Disposal Capacity Needs.** The Dolby III Landfill was not sited and developed, and is not currently being operated, to meet the capacity needs of municipalities.

BASED ON THE ABOVE FINDINGS OF FACT, the Maine DEP CONCLUDES that SPO has demonstrated the technical and financial capacity and intent to comply with the conditions of all Maine DEP licenses, permits, approvals, permits-by-rule, registrations, variances, certifications and amendments thereto, condition compliance orders and pending applications associated with the facilities described in this Order's findings, including specifically those licenses and applications listed in Appendix A, and to satisfy all applicable statutory and regulatory criteria. SPO's intent to maintain operations as currently licensed, or seek amendment of those licenses, and financial capacity representations, should protect waters of the State and ambient air, prevent hazards to health or welfare or nuisance creation, and not result in pollutant release increases.

THEREFORE the Maine DEP APPROVES the application of the Maine State Planning Office, subject to the following:

1. **Standard Conditions.** The Standard Conditions associated with all approvals that are the subject of this Order apply hereto.

2. **Point of Effective Transfer.** The transfer of Katahdin Paper LLC's permits and pending applications shall become effective when SPO and KPC jointly certify in writing to the Department that the transfer of Katahdin Paper Company LLC's licensed facilities to the Applicant has occurred.

3. **Sale Closure.** Within thirty (30) days of the transfer of the deeds to the facilities that are the subject of this Order, SPO shall provide the Department with copies of the deeds.

4. **Essential Facility Maintenance.** SPO shall cause all required and recommended actions specified in the "Sept 8 2011 KPC Operational Inspection Report" to be completed within thirty (30) days of the effective date of transfer of permits, and submit a Condition Compliance application to that effect to the Division of Solid Waste Management, Bureau of Remediation and Waste Management.

5. **Review and Approval of Additional Waste Streams.** SPO shall gain the approval of the Department prior to the acceptance of any waste streams from the GNP Companies mills not currently licensed for disposal in Dolby III, and prior to the acceptance of any wastes not generated at the GNP companies mills.

6. **Severability.** The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

DONE AND DATED AT AUGUSTA, MAINE THIS 28th DAY OF SEPTEMBER 2011.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

By: Patricia W. Aho
Patricia W. Aho, Commissioner

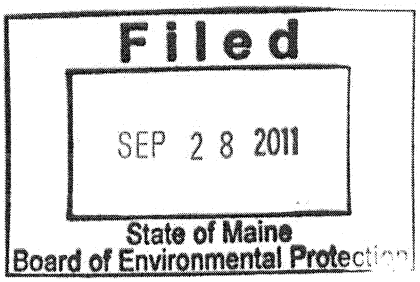
PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: September 6, 2011

Date application accepted for processing: September 7, 2011

Date filed with the Board of Environmental Protection

This Order prepared by Malcolm Burson, Office of the Commissioner.



APPENDIX A: CURRENT LICENSES AND APPLICATIONS

SOLID WASTE ORDERS

NUMBER	DESCRIPTION	DECISION DATE
26-796-19170	NEW: Dolby I license	9/22/76
26-796-19170	NEW: Dolby II license (amended)	6/14/78
L-796-07-D-M	REVISION: Dolby II – Condition #3 Compliance	5/21/86
S-796-WD-A-N	NEW: Dolby III Landfill	6/13/84
S-796-WD-B-M	REVISION: Dolby II Operating Manual Revision	6/20/84
S-796-WD-C-A	AMENDMENT: Dolby II	6/20/85
S-796-WD-D-M	REVISION: Condition #2 Compliance	1/30/86
S-796-WD-E-M	REVISION: Cover Variance	4/16/86
S-796-WD-G-M	REVISION: Minor Change Of Acceptance – Municipal Waste	10/11/85
S-796-WD-H-M	REVISION: Condition Compliance Dolby III	5/21/86
S-796-WD-J-M	REVISION: Acceptance Of Ash From Signal	7/9/87
S-796-WD-L-M	REVISION: Ash Dolby III	3/27/88
S-796-WD-M-C	CC: #4	11/01/88
S-796-WD-O-M	REVISION: Landfill-Additional Waste From Baxter Park-Corrected Order	4/19/90
S-796-WT-P-N	NEW: S.W. Coal Ash From Mills	7/23/90
S-796-Q-M	DOLBY III WOOD WASTE	2/6/92
S-796-WD-R-M	REVISION: Landfill-Waste From Recycled Fiber Plant	12/14/90
S-796-WD-S-M	REVISION: Add 26 Tons/Year Household Waste & 24 C.Y. Construct Debris	2/6/92
S-796-WD-T-C	CC: Dolby III Sampling & Analytical Plan	5/6/94
S-796-WD-U-M	REVISION: Increase Solid Waste Generation Rate From 86 Tpd To 95 Tpd	1/15/92
S-796-WD-V-M	REVISION: To #796-WD-U-M - 10,000-12,000 C.Y. Coal Ash	5/3/94
S-796-WS-X-N	NEW: Special Waste – For Disposal of Contaminated Soil at Dolby III	10/21/93
S-796-WD-Y-M	REVISION: Dolby III Landfill Minor Revision	4/29/94
S-796-WU Z-N	NEW: SW Program Approval For Dolby III Landfill	9/30/94
S-796-WD-AA-M	Revision: Leachate Pipeline	5/26/95
S-796-WD-AB-C	CC: #4 S-000796-WD-AB-C	8/15/95
S-796-WD-AC-A	AMENDMENT: For S-000796-WD-A-N	6/12/96
S-796-WD-AE-M	REVISION: Dolby Landfill	9/14/98
S-796-WD(7A)-Q-M	Disposal of 250 CY of wood waste from Oakfield Wood Yard	2/6/92
S-796-WU-AF-N	New: Special Waste On Going Disposal/Dolby Landfill/Oily Waste	8/26/99
S-796-WU-AG-N	New: On Going Special Waste Disposal/~17 Tons Per Day/Precipitated Calcium Carbonate/Lime Grit &Trash	6/16/00

SITE LOCATION ORDERS

L-11169-16-A-N	NEW: Gravel Pit For Cover Material	5/9/86
L-11169-16-B-M	REVISION: Condition Compliance	6/18/86
S-11169-WD-C-C	CC: Drainage & erosion control plan for cell 2	6/24/92

DEP INFORMATION SHEET

Appealing a Commissioner's Licensing Decision

Dated: May 2004 **Contact: (207) 287-2811**

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner: (1) in an administrative process before the Board of Environmental Protection (Board); or (2) in a judicial process before Maine's Superior Court. This INFORMATION SHEET, in conjunction with consulting statutory and regulatory provisions referred to herein, can help aggrieved persons with understanding their rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

DEP's *General Laws*, 38 M.R.S.A. § 341-D(4), and its *Rules Concerning the Processing of Applications and Other Administrative Matters* (Chapter 2), 06-096 CMR 2.24 (April 1, 2003).

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written notice of appeal within 30 calendar days of the date on which the Commissioner's decision was filed with the Board. .Appeals filed after 30 calendar days will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner and the applicant a copy of the documents. All the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

The materials constituting an appeal must contain the following information at the time submitted:

1. *Aggrieved Status.* Standing to maintain an appeal requires the appellant to show they are particularly injured by the Commissioner's decision.
2. *The findings, conclusions or conditions objected to or believed to be in error.* Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
3. *The basis of the objections or challenge.* If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.

5. *All the matters to be contested.* The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.
6. *Request for hearing.* The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.
7. *New or additional evidence to be offered.* The Board may allow new or additional evidence as part of an appeal only when the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or show that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2, Section 24(B)(5).

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license file is public information made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer questions regarding applicable requirements.
3. *The filing of an appeal does not operate as a stay to any decision.* An applicant proceeding with a project pending the outcome of an appeal runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge initiation of the appeals procedure, including the name of the DEP project manager assigned to the specific appeal, within 15 days of receiving a timely filing. The notice of appeal, all materials accepted by the Board Chair as additional evidence, and any materials submitted in response to the appeal will be sent to Board members along with a briefing and recommendation from DEP staff. Parties filing appeals and interested persons are notified in advance of the final date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision. The Board will notify parties to an appeal and interested persons of its decision.

II. APPEALS TO MAINE SUPERIOR COURT

Maine law allows aggrieved persons to appeal final Commissioner licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2.26; 5 M.R.S.A. § 11001; & MRCivP 80C. Parties to the licensing decision must file a petition for review within 30 days after receipt of notice of the Commissioner's written decision. A petition for review by any other person aggrieved must be filed within 40-days from the date the written decision is rendered. The laws cited in this paragraph and other legal procedures govern the contents and processing of a Superior Court appeal.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, contact the DEP's Director of Procedures and Enforcement at (207) 287-2811.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.

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

IN THE MATTER OF

STATE OF MAINE EXECUTIVE DEPARTMENT	) SITE LOCATION OF DEVELOPMENT ACT
STATE PLANNING OFFICE	)
East Millinocket, Penobscot County	)
DOLBY LANDFILL GRAVEL PIT	) PERMIT RECISION
L-11169-80-E-M (Approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of Title 38 M.R.S.A. Section 489-C, the Department of Environmental Protection has considered the application of STATE OF MAINE EXECUTIVE DEPARTMENT, STATE PLANNING OFFICE with its supportive data, and other related materials on file and finds the following facts:

1. In Department Order #L-11169-80-A-N, dated May 9, 1986, the Department approved the application of Great Northern Paper Company to develop a 267-acre gravel pit in the Town of East Millinocket. On September 28, 2011, the Department approved the license transfer of the Dolby Landfill and related properties to the State Planning Office. The applicant submitted an application requesting that the Department rescind the Site Location Permit for the Dolby Landfill Gravel Pit.

2. The affected area has been successfully reclaimed, and no additional mining activity is proposed. In addition, there are no outstanding permit violations or continuing permit requirements.

BASED on the above Findings of Fact, the department makes the following conclusions pursuant to 38 M.R.S.A. Section 489-C:

1. No outstanding permit violation exists for the development.

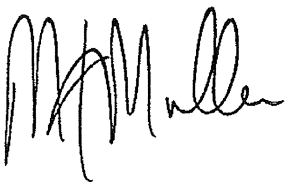
2. The affected area has been successfully reclaimed.

3. There are no continuing requirements.

4. There will be no additional mining for borrow, clay or topsoil.

THEREFORE, the Department RESCINDS Department Order #L-11169-80-A-N

DEPARTMENT OF ENVIRONMENTAL PROTECTION



This permit is digitally signed by Michael Mullen on behalf of Commissioner Patricia Aho. It is digitally signed pursuant to 10 M.R.S.A. § 9418. It has been filed with the Board of Environmental Protection as of the signature date.
2011.12.07 16:47:31 -05'00'

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEALS PROCEDURES...

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DEP INFORMATION SHEET
Appealing a Commissioner's Licensing Decision

Dated: May 2004 **Contact: (207) 287-2811**

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner: (1) in an administrative process before the Board of Environmental Protection (Board); or (2) in a judicial process before Maine's Superior Court. This INFORMATION SHEET, in conjunction with consulting statutory and regulatory provisions referred to herein, can help aggrieved persons with understanding their rights and obligations in filing an administrative or judicial appeal.

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3. *The basis of the objections or challenge.* If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.

4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.

x

5. *All the matters to be contested.* The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.

6. *Request for hearing.* The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.

7. *New or additional evidence to be offered.* The Board may allow new or additional evidence as part of an appeal only when the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or show that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2, Section 24(B)(5)

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

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There is a charge for copies or copying services.

2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer questions regarding applicable requirements.

3. *The filing of an appeal does not operate as a stay to any decision.* An applicant proceeding with a project pending the outcome of an appeal runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge initiation of the appeals procedure, including the name of the DEP project manager assigned to the specific appeal, within 15 days of receiving a timely filing. The notice of appeal, all materials accepted by the Board Chair as additional evidence, and any materials submitted in response to the appeal will be sent to Board members along with a briefing and recommendation from DEP staff. Parties filing appeals and interested persons are notified in advance of the final date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision. The Board will notify parties to an appeal and interested persons of its decision.

II. APPEALS TO MAINE SUPERIOR COURT

Maine law allows aggrieved persons to appeal final Commissioner licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2.26; 5 M.R.S.A. § 11001; & MRCivP 80C. Parties to the licensing decision must file a petition for review within 30 days after receipt of notice of the Commissioner's written decision. A petition for review by any other person aggrieved must be filed within 40-days from the date the written decision is rendered. The laws cited in this paragraph and other legal procedures govern the contents and processing of a Superior Court appeal.

ADDITIONAL INFORMATION: If you have questions or need additional information on the appeal process, contact the DEP's Director of Procedures and Enforcement at (207) 287-2811.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.

(Katahdin Paper)

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

DEPARTMENT ORDER

IN THE MATTER OF

KATAHDIN PAPER COMPANY, LLC	)	SOLID WASTE
EAST MILLINOCKET, PENOBSCOT COUNTY, MAINE	)	ORDER
DOLBY III LANDFILL	)	
SPECIAL WASTE DISPOSAL – SOLID SULFUR	)	
#S-000796-WT-AI-N	)	
(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

Pursuant to the provisions of 38 M.R.S.A. Section 1301 et seq., and 06-096 Chapter 400 et seq., the Solid Waste Management Regulations (effective November 2, 1998), the Department of Environmental Protection has considered the application of KATAHDIN PAPER COMPANY, LLC with its supportive data, agency review comments, staff summary, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. APPLICATION SUMMARY

A. Application: Katahdin Paper Company, LLC ("Katahdin") has applied for batch approval of a special waste.

B. History: Great Northern Paper ("GNP") received approval from the Board of Environmental Protection on June 13, 1984 to construct and operate a 70 acre landfill in the town of East Millinocket to be known as the Dolby III landfill (DEP #S-000796-07-A-N). The landfill was licensed to accept sludge, wood waste, bark boiler ash and general mill waste from the GNP mills in Millinocket and East Millinocket, and municipal solid waste from the towns of Millinocket, East Millinocket and Medway. GNP ceased the acceptance of municipal solid waste in October 1993. Since 1984, GNP has received approval from the Department to accept several additional waste streams. On April 28, 2003, the Department approved the transfer of the Dolby III Landfill licenses from GNP to Katahdin.

C. Summary of Proposal: Katahdin requests approval for the one time disposal of approximately 40 cubic yards of solid sulfur at its Dolby III landfill. The waste sulfur has been stored at Katahdin's Millinocket mill, and is to be removed during demolition of Katahdin's Magnesium Oxide Building at that mill.

KATAHDIN PAPER COMPANY, LLC	2	SOLID WASTE
EAST MILLINOCKET, PENOBSCOT COUNTY, MAINE	)	ORDER
DOLBY III LANDFILL	)	
SPECIAL WASTE DISPOSAL – SOLID SULFUR	)	
#S-000796-WT-AI-N	)	
(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

2. MATERIAL CHARACTERISTICS

Department staff, ("staff") have determined that the waste sulfur is an unused manufacturing product that has hardened into a dry, solid monolith within a storage tank. According to the MSDS information for this material, in this form it is relatively inert unless burned or reacted with strong oxidizers or caustics. It has a flash point of 355°F, and is not readily ignited except in liquid or powdered form. No burning is allowed at the Dolby III Landfill. No strong oxidizers or caustics are disposed in the Dolby III Landfill. Very little hydrogen sulfide would remain in, or be generated from, the solid sulfur.

The Department finds that the waste sulfur is a virgin off-specification material. Based on staff review of the MSDS information for the material and other technical data supplied by Katahdin and noted during staff inspections, the Department also finds that the information provided demonstrates that the material is not a hazardous waste and is deemed compatible with other wastes disposed of at Katahdin's landfill facility.

3. HANDLING PLAN

The stored waste sulfur is in a solid block, and is proposed to be transported to the Dolby III Landfill as solid pieces several inches in diameter. The solid pieces will be spread over the active area of the landfill to minimize the slight potential to generate hydrogen sulfide. The waste sulfur will be immediately covered with sludge after disposal.

The Department finds that Katahdin's plan for handling and disposing of the waste sulfur adequately addresses the requirements of the Rules.

BASED on the above Findings of Facts, the Department CONCLUDES the following:

The one time disposal of approximately 40 cubic yards of waste sulfur at Katahdin's Dolby III landfill, generated during the demolition of Katahdin's Magnesium Oxide Building, as proposed by Katahdin, will not pollute any waters of the state, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance.

KATAHDIN PAPER COMPANY, LLC	3	SOLID WASTE
EAST MILLINOCKET, PENOBSCOT COUNTY, MAINE	)	ORDER
DOLBY III LANDFILL	)	
SPECIAL WASTE DISPOSAL – SOLID SULFUR	)	
#S-000796-WT-AI-N	)	
(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

THEREFORE, the Department APPROVES the above noted application of KATAHDIN PAPER COMPANY, LLC SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations:

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

DONE AND DATED AT AUGUSTA, MAINE THIS 23rd DAY

OF August, 2004.

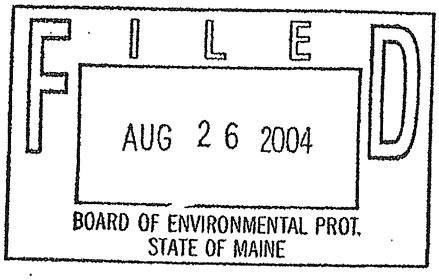
DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
Dawn R. Gallagher, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: July 14, 2004
Date of application acceptance: August 4, 2004

Date filed with the Board of Environmental Protection:



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Appendix A

STANDARD CONDITIONS TO ALL SOLID WASTE FACILITY LICENSES

STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL CONDITONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT TO MEET THE STATUTORY CRITERIA FOR APPROVAL. VIOLATIONS OF THE CONDITIONS UNDER WHICH A LICENSE IS ISSUED SHALL CONSTITUTE A VIOLATION OF THAT LICENSE, AGAINST WHICH ENFORCEMENT ACTION MAY BE TAKEN, INCLUDING REVOCATION.

1. Approval of Variations from Plans. The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed by the license. Any consequential variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation.

2. Compliance with All Applicable Laws. The licensee shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.

3. Compliance with All Terms and Conditions of Approval. The licensee shall submit all reports and information requested by the Department demonstrating that the licensee has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.

4. Transfer of License. The licensee may not transfer the solid waste facility license or any portion thereof without approval of the Department.

5. Initiation of Construction or Development Within Two Years. If the construction or operation of the solid waste facility is not begun within two years of issuance or within 2 years after any administrative and judicial appeals have been resolved, the license lapses and the licensee must reapply to the Department for a new license unless otherwise approved by the Department.

6. Approval Included in Contract Bids. A copy of the approval must be included in or attached to all contract bid specifications for the solid waste facility.

7. Approval Shown to Contractors. Contractors must be shown the license by the licensee before commencing work on the solid waste facility.

8. Background of key individuals. A licensee may not knowingly hire as an officer, director or key solid waste facility employee, or knowingly acquire an equity interest or debt interest in, any person convicted of a felony or found to have violated a State or federal environmental law or rule without first obtaining the approval of the Department.

9. Fees. The licensee must comply with annual license and annual reporting fee requirements of the Department's rules.

ADDITIONAL STANDARD CONDITIONS FOR SOLID WASTE DISPOSAL FACILITIES

10. Recycling and Source Reduction Determination for Solid Waste Disposal Facilities. This condition does not apply to the expansion of a commercial solid waste disposal facility that accepts only special waste for landfilling.

    The solid waste disposal facility shall only accept solid waste that is subject to recycling and source reduction programs, voluntary or otherwise, at least as effective an those imposed by 38 MRSA Chapter 13.

11. Deed Requirements for Solid Waste Disposal Facilities. Whenever any lot of land on which an active, inactive, or closed solid waste disposal facility is located is being transferred by deed, the following must be expressly stated in the deed:

    A. The type of facility located on the lot and the dates of its establishment and closure.

    B. A description of the location and the composition, extent, and depth of the waste deposited.

    C. The disposal location coordinates of asbestos wastes must be identified.

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

DEPARTMENT ORDER

RECEIVED
JUN 23 2000
By

IN THE MATTER OF

GREAT NORTHERN PAPER, INC.	)	SOLID WASTE
MILLINOCKET, PENOBSCOT COUNTY, MAINE	)	ORDER
SPECIAL WASTE DISPOSAL – PCC WASTE	)	
#S-000796-WU-AG-N	)	
(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

Pursuant to the provisions of 38 M.R.S.A. Section 1301 et seq., and 06-096 CMR Chapters 400, 401 and 405, Solid Waste Management Regulations, effective September 6, 1999, the Department of Environmental Protection ("Department") has considered the application of GREAT NORTHERN PAPER, INC. ("GNP") with its supportive data, staff review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. APPLICATION SUMMARY

A. Application: GNP requests approval to dispose of Precipitated Calcium Carbonate ("PCC")/lime grit on an ongoing basis in its Dolby III landfill.

B. History: GNP received approval from the Board of Environmental Protection on June 13, 1984 to construct and operate a 70 acre landfill in the town of East Millinocket to be known as the Dolby III landfill (DEP #S-000796-07-A-N). The landfill was licensed to accept sludge, wood waste, bark boiler ash and general mill waste from the GNP mills in Millinocket and East Millinocket, and municipal solid waste from the towns of Millinocket, East Millinocket and Medway. GNP ceased the acceptance of municipal solid waste in October 1993. Since 1984, GNP has received approval from the Department to accept several additional waste streams.

C. Summary of Proposal: GNP now requests approval to dispose of approximately 17 tons per day of PCC/lime grit in Dolby III on an ongoing basis. This quantity is expected to be produced once construction of the proposed permanent plant at GNP is operational; the quantity from the temporary mobile plant it will use until the permanent plant is available will be less. The waste will comprise approximately 1% of the total quantity of waste delivered to Dolby III.

GREAT NORTHERN PAPER, INC.	2	SOLID WASTE
MILLINOCKET, PENOBSCOT COUNTY, MAINE	)	ORDER
SPECIAL WASTE DISPOSAL – PCC WASTE	)	
#S-000796-WU-AG-N	)	
(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

2. TECHNICAL SUMMARY

A. Review: GNP submitted waste characterization data from other operational plants, and the Material Safety Data Sheets ("MSDS") for the waste. The information submitted demonstrate that the waste will be non-hazardous. The waste is comprised mainly of silica, calcium, magnesium, limestone and sand. The results of TCLP testing were that all parameters (metals, semi-volatile and volatile organics) were below the detection limits. The waste is not combustible and will react only with strong acids, which are not present in the landfill. The waste is similar in chemical composition to the quicklime waste used by GNP to buffer the acid influent to the wastewater treatment plant. The Department finds that the waste characterization data and MSDS for the PCC/lime grit demonstrate that the waste is non-hazardous and compatible with the other wastes disposed of in the landfill and the landfill components. The Department further finds that future characterization of the PCC/lime grit should be performed in accordance with the approved operations manual for the Dolby III landfill.

B. Handling: No special handling procedures will be required for the PCC/lime grit waste. The Department finds that the proposed waste stream is similar to the other wastes currently disposed of in the Dolby III landfill, and can be handled in accordance with the approved operating procedures for the landfill.

BASED on the above Findings of Fact, and subject to the Conditions listed below, the Department makes the following CONCLUSION:

The ongoing disposal of approximately 17 tons per day of PCC/lime grit generated by GNP as proposed by GNP will not pollute any waters of the state, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance.

THEREFORE, the Department APPROVES the above noted application of GREAT NORTHERN PAPER, INC., SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

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

GREAT NORTHERN PAPER, INC.	3	SOLID WASTE
MILLINOCKET, PENOBSCOT COUNTY, MAINE	)	ORDER
SPECIAL WASTE DISPOSAL – PCC WASTE	)	
#S-000796-WU-AG-N	)	
(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

2. GNP shall perform ongoing characterization of the PCC/lime grit in accordance with the approved operations manual for the Dolby III landfill.

DONE AND DATED AT AUGUSTA, MAINE, THIS 16th DAY OF June, 2000.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: David Lennett
Martha G. Kirkpatrick, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 19, 2000

Date of acceptance of application: June 7, 2000

Date filed with Board of Environmental Protection:

FILED
JUN 20 2000
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

This Order prepared by Cyndi Darling, Bureau of Remediation and Waste Management

xcd34356/mel

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

DEPARTMENT ORDER

RECEIVED
AUG 31 1999

IN THE MATTER OF

GREAT NORTHERN PAPER, INC.	)	SOLID WASTE
MILLINOCKET, PENOBSCOT COUNTY, MAINE	)	ORDER
DISPOSAL OF OILY WASTE	)	
#S-000796-WU-AF-N	)	SPECIAL WASTE
(APPROVAL WITH CONDITIONS)	)	DISPOSAL

Pursuant to the provisions of 38 M.R.S.A. Section 1301 et seq., and 06-096 CMR Chapter 400 et seq., Solid Waste Management Regulations, effective November 2, 1998, the Department of Environmental Protection ("Department") has considered the application of GREAT NORTHERN PAPER, INC. ("GNP") with its supportive data, agency review comments, staff summary, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. APPLICATION SUMMARY

A. Application: GNP has applied for approval to dispose of oily waste on an ongoing basis at its Dolby III Landfill.

B. History: GNP received approval from the Board of Environmental Protection on June 13, 1984 to construct and operate a 70 acre landfill in the town of East Millinocket to be known as the Dolby III landfill (DEP #S- 000796-WD-A-N). The landfill was licensed to accept sludge, wood waste, bark boiler ash and general mill waste from the GNP mills in Millinocket and East Millinocket, and municipal solid waste from the towns of Millinocket, East Millinocket and Medway. GNP ceased the acceptance of municipal solid waste in October 1994. Since 1984, GNP has received approval from the Department to accept several additional waste streams.

C. Summary of Proposal: GNP now requests approval to dispose of approximately 3000 cubic yards per year of oily waste in its Dolby III landfill. The special waste is occasionally generated during cleanup of petroleum product spills within the GNP mill facilities. GNP also requests a variance to Chapter 405.6.C(3) of the Solid Waste Management Rules ("Rules"), which specifies the analytical testing for non-recoverable oily waste. GNP proposes not to analyze oily waste prior to its disposal in Dolby III when GNP's trained Spill Team responds to a spill, assesses the nature of the spill, and can certify that the resulting oily waste is non-hazardous. If there is any uncertainty about the nature of the waste, or if contractors working within either of the mill facilities spilled the oil, GNP will analyze the oily waste in accordance with Chapter 405.6.C(3) and determine it is non-hazardous prior to its disposal.

GREAT NORTHERN PAPER, INC.	2	SOLID WASTE
MILLINOCKET, PENOBSCOT COUNTY, MAINE	)	ORDER
DISPOSAL OF OILY WASTE	)	
#S-000796-WU-AF-N	)	SPECIAL WASTE
(APPROVAL WITH CONDITIONS)	)	DISPOSAL

2. STAFF REVIEW

Department staff ("staff") have reviewed GNP's proposal to dispose of approximately 3000 cubic yards per year of oily waste in GNP's Dolby III Landfill, including the variance request not to analyze oily waste that GNP's Spill Team can certify is non-hazardous. Staff comment that the application is acceptable as proposed, provided the procedure for accepting oily waste for disposal is incorporated into the operations manual for Dolby III. The Department finds that the disposal of approximately 3000 cubic yards per year of oily waste at GNP's Dolby III landfill, using the process proposed by GNP for assuring that only non-recoverable oily waste that is non-hazardous is disposed, is acceptable and complies with the intent of the Rules. The Department also finds that GNP must incorporate the procedure for accepting oily waste for disposal into the operations manual for the Dolby III landfill.

BASED on the above findings of fact, the Department CONCLUDES the following:

The modification of Department Order #S-000796-WD-A-N as proposed by GNP will not pollute any water of the state, contaminate the ambient air, constitute a hazard to the health or welfare, or create a nuisance, provided GNP implements the modification as proposed and the change is incorporated into the Dolby III operations manual. Compliance with the intent of the Solid Waste Management Rules has been affirmatively demonstrated.

THEREFORE, the Department APPROVES the variance to Chapter 405.6.C(3) described in the Findings of Fact, above, and APPROVES the above noted application of GREAT NORTHERN PAPER, INC. SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations:

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

2. GNP shall incorporate the procedure for accepting non-recoverable oily waste for disposal into the operations manual for the Dolby III landfill.

GREAT NORTHERN PAPER, INC.	3	SOLID WASTE
MILLINOCKET, PENOBSCOT COUNTY, MAINE	)	ORDER
DISPOSAL OF OILY WASTE	)	
#S-000796-WU-AF-N	)	SPECIAL WASTE
(APPROVAL WITH CONDITIONS)	)	DISPOSAL

3. All other Findings of Fact, Conclusions and Conditions remain as approved in Department License #S-000796-WD-A-N, and are incorporated herein.

DONE AND DATED AT AUGUSTA, MAINE THIS 26th DAY

OF August, 1999.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: David Lennett for
Martha G. Kirkpatrick, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: July 28, 1999

Date application accepted for processing: August 4, 1999

Date filed with Board of Environmental Protection

FILED
AUG 27 1999
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

This Order prepared by Cyndi Darling, Bureau of Remediation & Waste Management

XCD33035/cwd/llg

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

DEPARTMENT ORDER

IN THE MATTER OF

GREAT NORTHERN PAPER, INC.	)	SOLID WASTE ORDER
MILLINOCKET, PENOBSCOT COUNTY, MAINE	)	
LEACHATE TRANSPORT PIPELINE	)	
#S-000796-WD-AA-M	)	
(APPROVAL WITH CONDITIONS)	)	MINOR REVISION

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

1. APPLICATION SUMMARY

A. Application: GNP has applied for approval to construct and operate a leachate transport pipeline between its Dolby III landfill and its wastewater treatment plant in East Millinocket.

B. History: GNP received approval from the Board of Environmental Protection on June 13, 1984 to construct and operate a 70 acre landfill in the town of East Millinocket to be known as the Dolby III landfill (DEP #000796-07-A-N). The landfill was licensed to accept sludge, wood waste, bark boiler ash and general mill waste from the GNP mills in Millinocket and East Millinocket, and municipal wastes from the towns of Millinocket, East Millinocket, and Medway. GNP ceased the acceptance of municipal solid waste in October 1993. Since 1984, GNP has received approval from the Department to accept several additional waste streams. Currently, leachate from the landfill is collected and stored in an on-site leachate pond, then pumped into tank trucks and hauled to GNP's East Millinocket Mill treatment plant.

C. Summary of Proposal: GNP requests approval to construct and operate an approximately 18,100 foot long leachate pipeline to transport leachate from the Dolby III leachate storage pond to the East Millinocket mill wastewater treatment plant. The leachate transport line will be constructed along abandoned and existing roads. GNP proposes to monitor the level of leachate in the storage pond on a daily basis, and if the pond level reaches 3 feet below the overflow level,

GNP will supplement flow through the pipeline by initiating around-the-clock hauling of leachate in tank trucks until the pond level drops below the functioning level of the leachate pumps.

2. DESIGN OF THE PIPELINE

The pipeline to transport leachate from the Dolby III leachate storage pond to the East Millinocket wastewater treatment plant will be approximately 18,100 linear feet long. It will consist of force main and gravity sewer piping, associated appurtenances, and the existing pump station at the Dolby leachate storage pond.

The existing pump station will be altered by replacing or modifying the existing 2 submersible pumps so a single pump can output between 580 and 650 gallons per minute, and both pumps can output between 660 and 770 gallons per minute. One pump will be automatically activated by storage pond level controllers; it will shut the flow off when the pond level drops below the controller's low level setpoint. The second pump will be manually operated during high leachate flow conditions. A separate valve chamber containing isolation and drain valves will be installed adjacent to the existing pumping wet well in order to provide the necessary valves for system operation and testing.

From the upgraded pump station at the Dolby III leachate storage pond to the overhead pipe bridge located near the Recycled Fiber Plant at the East Millinocket Mill the pipeline will be continuous, butt fusion welded HDPE pipe. The first 6400 feet will be an 8 inch force main, and the remaining 10,200 feet of this section will be a 10 inch gravity line.

From the overhead pipe bridge to a manhole on the pulp mill process sewer leading to the wastewater treatment plant, the pipeline will be a 10 inch insulated, heated stainless steel gravity line. This section of overhead pipeline will be approximately 1600 feet long.

Appurtenances along the underground section of the pipeline consist of air relief/test manholes and a flow transition structure at the force main terminus. Test manholes are located along the pipeline so portions may be isolated for hydrostatic testing. All structures will be standard pre-cast concrete units.

GNP submitted preliminary drawings rather than construction-ready drawings and specifications for the project.

GNP submitted general procedures to be followed if blasting is required during construction of the pipeline. GNP proposes to submit a specific blasting plan to the Department in advance of any blasting.

The Department finds that the design of the transport pipeline is adequately sized for the quantity of leachate estimated to be generated by the landfill, and that the materials proposed for the pipeline are compatible with the leachate proposed to be transported. The Department also finds that GNP plans to construct the pipeline in conformance with current accepted practices, and statutory and regulatory requirements, provided GNP submits construction-ready drawings and specifications prior to initiating construction of the leachate transport pipeline, submits record drawings after completion of construction, and submits a specific blasting plan to the Department for review and approval prior to any blasting occurring along the pipeline route.

3. OPERATION OF THE LEACHATE POND AND THE PIPELINE

GNP submitted revisions to the Dolby III operations manual which address modifications to the operation of the leachate storage pond, and procedures for the operation, routine monitoring, and cleaning and maintenance of the leachate transport line. Leachate flow in the transport line will be monitored using a flow meter at the mill end of the pipeline, and running time and pressure gauges at the pump station will measure leachate volume handled at the pumps. The level of leachate in the wetwell adjacent to the storage pond is also monitored.

The Dolby III landfill operators will check the pump discharge pressure readings and record the leachate pump running time daily when the pond level is checked. In the event of any discrepancy between expected and actual pressure, the pipeline will be shut down until the discrepancy can be explained. On any day that leachate is being pumped, the landfill foreman will also check the flow meter readings at the East Millinocket Mill to assure that flow during pump operation is within the designated flow range; if it is below the range, the foreman will contact the Maintenance and Environmental Affairs Department for assistance, and the pipeline will be shut down immediately until the cause of the drop in pressure is determined. Any time the pipeline is shut down, operation will not resume until any necessary repairs have been made.

Calibration of flow monitoring equipment, hydrostatic testing, and/or inspection of the pipeline route are methods proposed to determine if the line is leaking. Valves and fittings for hydrostatic testing are located at 2,000 to 3,000 foot intervals along the force main section of the line. The pipeline route can be accessed for inspection or testing year round.

The revised operations manual also contains provisions for the hauling of leachate by tank truck to the wastewater treatment plant if the level of leachate in the storage pond reaches 3 feet below the overflow level, due to extremely high leachate flows or equipment malfunction. Leachate will be pumped from the pond with portable diesel driven pumps, into tank trucks. Arrangements have been made with local contractors to have trucks and trailers available on short notice

The Department finds that the revisions GNP proposes to its Dolby landfill operations manual were prepared in substantial compliance with Chapter 401.6 of the Solid Waste Management Rules. The Department also finds that GNP has a pending application to relicense the Dolby III landfill and that changes to the operations manual, including changes in the leachate collection and transport inspection and maintenance sections, may occur as part of the relicensing action.

3. EROSION AND SEDIMENTATION CONTROL

Erosion and sedimentation control practices will be consistent with the Best Management Practices of the U.S. Soil Conservation Service and Cumberland County Soil and Water Conservation District. The specific erosion and sedimentation control measures to be used for the project are detailed on the 14 design drawings, sheets YB-22942 through YB-22955. The Department finds that GNP has provided for the control of erosion and sedimentation during the construction and operation of the leachate transport line.

4. WETLANDS

Portions of the leachate transport line will be located less than 100 feet from 9 wetland areas regulated by the Department under the Natural Resources Protection Act. No filling of wetlands is proposed by this project. S.W. Cole Engineering, Inc. conducted the wetland identification survey of the pipeline route and a Class D soil survey. GNP filed a permit-by-rule application with the Department in accordance with the provisions of CMR 305. The Department finds that the construction and operation of the leachate

transport pipeline will not result in a violation of Natural Resources Protection statute or regulations provided GNP constructs and operates the pipeline as proposed, and the standards established in CMR 305 are met.

BASED on the above Findings of Fact, and subject to the Conditions listed below, the Department makes the following CONCLUSION:

The construction and operation of a leachate transport pipeline between the Dolby III leachate storage pond and the East Millinocket Mill wastewater treatment plant as proposed by GNP will not pollute any water of the state, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance.

THEREFORE, the Department APPROVES the noted application of GREAT NORTHERN PAPER, INC., SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

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

2. All other Findings of Fact, Conclusions, and Conditions remain as approved in Department license #S-000796-07-A-N and previous revisions to that license, and are incorporated herein.

3. Prior to the initiation of construction, GNP shall submit to the Department construction-ready drawings and specifications.

4. Prior to any blasting occurring along the pipeline route, GNP shall submit to the Department for review and approval a specific blasting plan.

GREAT NORTHERN PAPER, INC. MILLINOCKET, PENOBSCOT COUNTY, MAINE LEACHATE TRANSPORT PIPELINE #S-000796-WD-AA-M (APPROVAL WITH CONDITIONS)	6))))	SOLID WASTE ORDER MINOR REVISION

5. After completion of construction, GNP shall submit to the Department record drawings for the leachate transport pipeline.

DONE AND DATED AT AUGUSTA, MAINE THIS 26th DAY

OF May, 1995.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Dan M. Prupuski for
Edward O. Sullivan, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: January 17, 1995

Date application accepted for processing: January 23, 1995

FILED
JUN - 6 1995
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

Date filed with Board of Environmental Protection

This Order prepared by Cynthia W. Darling, Bur. of Hazardous Materials & Solid Waste Control

OCDDOGNA/sjm

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

RECEIVED
OCT 4 1994

DEPARTMENT ORDER

IN THE MATTER OF

GREAT NORTHERN PAPER, INC.	)	SOLID WASTE ORDER
MILLINOCKET, PENOBSCOT COUNTY, MAINE	)	
DISPOSAL OF ASBESTOS	)	
#S-000796-WU-Z-N	)	
(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

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

1. APPLICATION SUMMARY

A. Application: GNP has applied for approval to dispose of asbestos, a special waste, in its generator-owned landfill on a continuous basis.

B. History: GNP received approval from the Board of Environmental Protection on June 13, 1984 to construct and operate a 70 acre landfill in the town of East Millinocket to be known as the Dolby III landfill (DEP #000796-07-A-N). The landfill was licensed to accept sludge, wood waste, bark boiler ash and general mill waste from the GNP mills in Millinocket and East Millinocket, and municipal wastes from the towns of Millinocket, East Millinocket, and Medway. GNP ceased the acceptance of municipal solid waste in October 1993. Since 1984, GNP has received approval from the Department to accept several additional waste streams.

C. Summary of Proposal: GNP requests approval to dispose of up to approximately 3000 cubic yards of asbestos containing material per year at the Dolby III landfill. The asbestos containing material will be generated during construction activities at the Millinocket and East Millinocket mills; the volume generated on an annual basis will depend on the level of construction activity at the mills.

2. TECHNICAL SUMMARY

A. Review: Department staff have reviewed GNP's proposal and found asbestos to be compatible with the other waste streams disposed of in the facility, and the design of the facility.

GREAT NORTHERN PAPER, INC.	2	SOLID WASTE ORDER
MILLINOCKET, PENOBSCOT COUNTY, MAINE	)	
DISPOSAL OF ASBESTOS	)	
#S-000796-WU-Z-N	)	
(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

B. Handling: GNP has submitted the comprehensive changes to its operations manual that will be made to address the handling, monitoring and disposal practices for asbestos containing material at the Dolby III landfill. Staff have found the manual to be in compliance with current asbestos laws and regulations.

BASED on the above Findings of Fact, and subject to the Conditions listed below, the Department makes the following CONCLUSION:

The continuous disposal of up to 3000 cubic yards per year of asbestos generated at GNP's Millinocket and East Millinocket mills as proposed by GNP will not pollute any water of the state, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance.

THEREFORE, the Department APPROVES the noted application of GREAT NORTHERN PAPER, INC., SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

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

DONE AND DATED AT AUGUSTA, MAINE THIS 30th DAY

OF September, 1994.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Alan M. Prysunka for
Deborah N. Garrett, Acting Commissioner

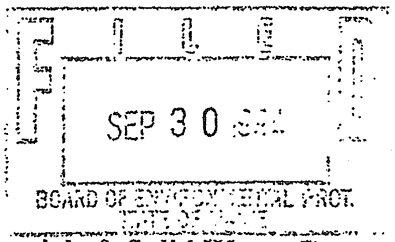
PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: August 10, 1994

Date application accepted for processing: August 22, 1994

Date filed with Board of Environmental Protection

FILED
SEP 30 1994
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

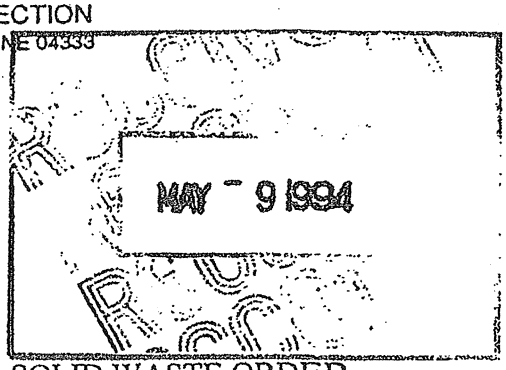


This Order prepared by Cynthia W. Darling, Bur. of Hazardous Materials & Solid Waste Control

OCDDOGNZ/cwd/llg

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

DEPARTMENT ORDER



IN THE MATTER OF

GREAT NORTHERN PAPER, INC.	)	SOLID WASTE ORDER
MILLINOCKET, PENOBSCOT COUNTY, MAINE	)	
CHANGE IN DISPOSAL QUANTITIES	)	
#S-000796-WD-Y-M	)	
(APPROVAL WITH CONDITIONS)	)	MINOR REVISION

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

1. APPLICATION SUMMARY

A. Application: GNP has applied for a minor revision to Department License #S-00796-WD-U-M, dated January 15, 1992, which approved changes in the quantities of deigning sludge from its East Millinocket facility disposed in GNP's Dolby III landfill.

B. History: GNP received approval from the Board of Environmental Protection on June 13, 1984 to construct and operate a 70 acre landfill in the town of East Millinocket to be known as the Dolby III landfill (DEP #000796-07-A-N). The landfill was licensed to accept sludge, wood waste, bark boiler ash and general mill waste from the GNP mills in Millinocket and East Millinocket, and municipal wastes from the towns of Millinocket, East Millinocket and Medway. GNP ceased the acceptance of municipal solid waste in October, 1994. Since 1984, GNP has received approval from the Department to accept several additional waste streams. The last waste stream approved for disposal at Dolby III was deigning facility waste (DEP #S-00796-7A-R-M).

C. Summary of Proposal: GNP now requests approval to change the quantities of wastes to be disposed of at Dolby III. The changes are due to a consolidation of operations between GNP's East and West Operations. The following changes are estimated:

GREAT NORTHERN PAPER, INC.	2	SOLID WASTE ORDER
MILLINOCKET, PENOBSCOT COUNTY, MAINE	)	
CHANGE IN DISPOSAL QUANTITIES	)	
#S-000796-WD-Y-M	)	
(APPROVAL WITH CONDITIONS)	)	MINOR REVISION

WASTE	WEST OPERATION	EAST OPERATION
Sludge	120 cu. yards decrease	365 cu. yards increase
Wood Yard Waste	90 cu. yards decrease	
Mill trash	20 cu. yards decrease	

No net increase over the quantity permitted by Department Order #S-00796-WD-U-M is anticipated.

2. STAFF REVIEW

Department staff have reviewed GNP's application for a minor revision and find that it is acceptable as proposed.

BASED on the above Findings of Fact, and subject to the Conditions listed below, the Department makes the following CONCLUSION:

Modification of Department Order #S-00796-WD-U-M as proposed by Great Northern Paper, Inc. will not pollute any water of the State, contaminate the ambient air, constitute a hazard to health and welfare, or create a nuisance, provided the conditions below are complied with.

THEREFORE, the Department APPROVED the above noted application of GREAT NORTHERN PAPER, INC. SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

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

GREAT NORTHERN PAPER, INC.	3	SOLID WASTE ORDER
MILLINOCKET, PENOBSCOT COUNTY, MAINE	)	
CHANGE IN DISPOSAL QUANTITIES	)	
#S-000796-WD-Y-M	)	
(APPROVAL WITH CONDITIONS)	)	MINOR REVISION

2. All other Findings of Fact, Conclusions and Conditions remain as approved in previous Department Orders, and are incorporated herein.

DONE AND DATED AT AUGUSTA, MAINE THIS 29th DAY

OF April, 1994.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

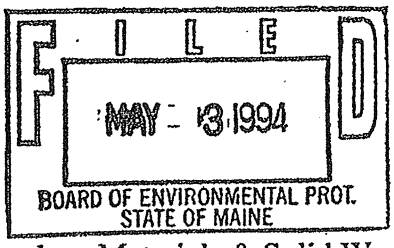
BY: Allen M. Prysunka Jr
Debrah J. Richard, Acting Commissioner

PLEASE NOTE ATTACHED FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: March 7, 1994

Date of application acceptance: March 29, 1994

Date filed with Board of Environmental Protection:



This Order prepared by Cynthia W. Darling, Bureau of Hazardous Materials & Solid Waste Control

OCDDOGN2/cwd/llg

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

DEPARTMENT ORDER

OCT 2 6 1993

IN THE MATTER OF

GREAT NORTHERN PAPER, INC.	)	SOLID WASTE ORDER
MILLINOCKET, PENOBSCOT COUNTY, MAINE	)	
SPECIAL WASTE DISPOSAL	)	
PCB CONTAMINATED SOIL	)	
#S-000796-WS-X-N	)	
(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

Pursuant to the provisions of Title 38 M.R.S.A., Section 1301 et seq., and 06-096 CMR Chapter 405, Solid Waste Management Rules, effective May 24, 1989, the Department of Environmental Protection has considered the application of GREAT NORTHERN PAPER COMPANY, INC. ("GNP") with its supportive data, staff summary, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. APPLICATION SUMMARY

A. Application: GNP has applied for batch approval of a special waste.

B. History: GNP operates Dolby III, a solid waste disposal facility in East Millinocket, Maine, for the disposal of residuals from its mills in Millinocket and East Millinocket, Maine, and a small quantity of municipal solid waste.

C. Summary of Proposal: GNP requests approval for the one-time only disposal of approximately 30 cubic feet of soil contaminated with less than 5 parts per million of PCBs at its special waste landfill. The material was generated by GNP. The waste came from a leaking transformer at GNP's East Operation and a leaking drum of transformer fluid at GNP's West Operation.

2. TECHNICAL SUMMARY

A. Review: Department staff have reviewed the batch analytical data and found the material to be acceptable for disposal.

BASED on the above Findings of Fact, and subject to the Conditions listed below, the Department makes the following CONCLUSION:

The one-time only disposal of approximately 30 cubic feet of soil contaminated with less than 5 parts per million of PCBs generated by Great Northern Paper, Inc. of Millinocket, Maine as proposed by GNP will not pollute any water of the state, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance.

GREAT NORTHERN PAPER, INC.	2	SOLID WASTE ORDER
MILLINOCKET, PENOBSCOT COUNTY, MAINE	)	
SPECIAL WASTE DISPOSAL	)	
PCB CONTAMINATED SOIL	)	
#S-000796-WS-X-N	)	
(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

THEREFORE, the Department APPROVES the above noted application of GREAT NORTHERN PAPER, INC. SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations.

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

DONE AND DATED AT AUGUSTA, MAINE, THIS 21st DAY

OF October, 1993.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Dean M. Marriott
Dean C. Marriott, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: August 31, 1993
Date of application acceptance: September 14, 1993

Date filed with Board of Environmental Protection:

FILED
OCT 22 1993
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

OCDDOGNX/cwd

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

DEPARTMENT ORDER

RECEIVED
FEB 12 1992

IN THE MATTER OF

GREAT NORTHERN PAPER, INC.	)	SOLID WASTE ORDER
East Millinocket, Penobscot County, Maine	)	MINOR REVISION -
DOLBY III LANDFILL	)	OAKFIELD WOOD
#S-00796-7A-Q-M (APPROVAL WITH CONDITIONS)	)	WASTE DISPOSAL

Pursuant to the provisions of 38 M.R.S.A., Section 1301 et seq. and 06-096 CMR Chapter 401, Solid Waste Management Rules, effective May 24, 1989, the Department of Environmental Protection ("Department") has considered the application of GREAT NORTHERN PAPER, INC. ("GNP"), a subsidiary of Bowater Incorporated, with its supportive data and other related materials on file and FINDS THE FOLLOWING FACTS:

1. APPLICATION SUMMARY

   a. Application: GNP has applied for a minor revision to Department License #L-00796-07-A-N, dated June 13, 1984, which approved the construction and operation of the Dolby III landfill.

   b. History: GNP received approval from the Board of Environmental Protection on June 13, 1984 to construct a 70 acre landfill in the town of East Millinocket to be known as the Dolby III landfill (Department License #L-00796-07-A-N). The landfill was licensed to accept sludge, wood waste, bark boiler ash and general mill waste from the GNP mills in Millinocket and East Millinocket, and municipal wastes from the towns of Millinocket, East Millinocket and Medway. Since 1984, GNP has received approval from the Department to accept several additional waste streams.

   c. Summary of Proposal: GNP now requests approval to dispose of approximately 250 cubic yards per year of woodwaste from GNP's Oakfield Woodyard. The application states the waste will not cause any operational problems.

2. Department staff have reviewed GNP's request and find that the disposal of approximately 250 cubic yards of woodwaste at Dolby III will not impact the operation of the facility or the effectiveness of the facility's design.

BASED on the above Findings of Fact, the Department concludes the following:

A. The disposal of approximately 250 cubic yards of woodwaste from GNP's Oakfield Woodyard at Dolby III, as proposed by GNP, will not pollute any water of the state, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance.

GREAT NORTHERN PAPER, INC. East Millinocket, Penobscot County, Maine DOLBY III LANDFILL #S-00796-7A-Q-M (APPROVAL WITH CONDITIONS)	)	SOLID WASTE ORDER MINOR REVISION - OAKFIELD WOOD WASTE DISPOSAL

THEREFORE, the Commissioner APPROVES the above noted application of GREAT NORTHERN PAPER, INC., SUBJECT TO THE FOLLOWING CONDITIONS and all applicable standards and regulations.

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

2. All other Findings of Fact, Conclusions, and Conditions remain as approved in Department License #L-00796-7A-A-N, and are incorporated herein.

3. This minor revision expires concurrently with Department license #S-00796-7A-N-R; this is GNP's Dolby III landfill renewal application, and is pending before the Department at this time.

DONE AND DATED AT AUGUSTA, MAINE THIS 6th DAY OF February, 1992.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Dean C Marriott
Dean C. Marriott, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application April 13, 1990
Date application accepted for processing May 21, 1990

Date filed with Board of Environmental Protection: n/a

CWD/gnp7aqm

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

RECEIVED
FEB 12 1992

DEPARTMENT ORDER

IN THE MATTER OF

GREAT NORTHERN PAPER, INC.	)	SOLID WASTE ORDER
East Millinocket, Penobscot County, Maine	)	
DOLBY III LANDFILL	)	MINOR REVISION
#S-00796-7A-S-M (APPROVAL WITH CONDITIONS)	)	

Pursuant to the provisions of 38 M.R.S.A., Section 1301 et seq. and 06-CMR Chapter 401, Solid Waste Management Rules, effective May 24, 1989, the Department of Environmental Protection ("Department") has considered the application of GREAT NORTHERN PAPER, INC. ("GNP"), a subsidiary of Bowater Incorporated, with its supportive data and other related materials on file and FINDS THE FOLLOWING FACTS:

1. APPLICATION SUMMARY

   a. Application: GNP has applied for a minor revision to Department License #L-00796-07-A-N, dated June 13, 1984, which approved the construction and operation of the Dolby III landfill.

   b. History: GNP received approval from the Board of Environmental Protection on June 13, 1984 to construct a 70 acre landfill in the town of East Millinocket to be known as the Dolby III landfill (Department License #L-00796-07-A-N). The landfill was licensed to accept sludge, wood waste, bark boiler ash and general mill waste from the GNP mills in Millinocket and East Millinocket, and municipal wastes from the towns of Millinocket, East Millinocket and Medway. Since 1984, GNP has received approval from the Department to accept several additional waste streams.

   c. Summary of Proposal: GNP now requests approval to dispose of approximately 26 tons per year household solid waste and approximately 24 cubic yards of construction debris from the Deering Lake subdivision in Weston, Maine.

2. Department staff have reviewed GNP's request and find that the disposal of the above wastes at Dolby III will not impact the operation of the facility or the effectiveness of the facility's design.

GREAT NORTHERN PAPER, INC.
East Millinocket, Penobscot County, Maine
DOLBY III LANDFILL
#S-00796-7A-S-M (APPROVAL WITH CONDITIONS)

2 SOLID WASTE ORDER
)
) MINOR REVISION
)

BASED on the above Findings of Fact, the Department concludes the following:

A. The disposal of approximately 26 tons per year household solid waste and approximately 24 cubic yards of construction debris from the Deering Lake subdivision in Weston, Maine at Dolby III, as proposed by GNP, will not pollute any water of the state, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance.

THEREFORE, the Commissioner APPROVES the above noted application of GREAT NORTHERN PAPER, INC., SUBJECT TO THE FOLLOWING CONDITIONS and all applicable standards and regulations.

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

2. All other Findings of Fact, Conclusions, and Conditions remain as approved in Department License #L-00796-7A-A-N, and are incorporated herein.

3. This minor revision expires concurrently with Department license #S-00796-7A-N-R; this is GNP's Dolby III landfill renewal application, and is pending before the Department at this time.

DONE AND DATED AT AUGUSTA, MAINE THIS 6th DAY OF February, 1992.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Dean C Marriott
Dean C. Marriott, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application March 20, 1991
Date application accepted for processing April 2, 1991

Date filed with Board of Environmental Protection

FILED
FEB - 7 1992
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

CWD/gnp7asm

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

DEPARTMENT ORDER

RECEIVED
JAN 22 1992

IN THE MATTER OF

GREAT NORTHERN PAPER, INC.	)	SOLID WASTE ORDER
East Millinocket, Penobscot County, Maine	)	MINOR REVISION -
DOLBY III LANDFILL	)	DEINKING FACILITY
#S-00796-WD-U-M (APPROVAL WITH CONDITIONS)	)	WASTE DISPOSAL

Pursuant to the provisions of 38 M.R.S.A., Section 1301 et seq. the Department of Environmental Protection ("Department") has considered the application of GREAT NORTHERN PAPER, INC. ("GNP"), a subsidiary of Bowater Incorporated, with its supportive data and other related materials on file and FINDS THE FOLLOWING FACTS:

1. APPLICATION SUMMARY

a. Application: GNP has applied for a minor revision to Department license #S-00796-7A-R-M, dated December 14, 1990, which approved the disposal of waste from a deinking facility planned for construction at GNP's East Millinocket mill.

b. History: GNP received approval from the Board of Environmental Protection on June 13, 1984 to construct a 70 acre landfill in the town of East Millinocket to be known as the Dolby III landfill (DEP #L-999796-07-A-N). The landfill was licensed to accept sludge, wood waste, bark boiler ash and general mill waste from the GNP mills in Millinocket and East Millinocket, and municipal wastes from the towns of Millinocket, East Millinocket and Medway. Since 1984, GNP has received approval from the Department to accept several additional waste streams. The last waste stream approved for disposal at Dolby III was deinking facility waste (DEP #S-00796-7A-R-M). GNP estimated the quantities and types of waste to be disposed of as the following: approximately 32 tons per day of ink sludge, approximately 11 tons per day of general mill waste, and an unspecified quantity of ash containing ink sludge.

c. Summary of Proposal: GNP now requests approval to change the quantities of deinking facility waste to be disposed of at Dolby III. GNP is also proposing to modify its Site Location of Development license (DEP #L-016637-20-G-N, dated December 10, 1990) for the deinking facility; it proposes to add a second stage of pulp washing to the facility to improve the quality of the wastepaper produced. The proposed modification to the deinking facility will result in changes to the quantities of solid waste generated as listed below.

- approximately 92 oven dry tons per day of ink sludge
- approximately 3 oven dry tons per day of general mill waste

GREAT NORTHERN PAPER, INC.) 2) SOLID WASTE ORDER
East Millinocket, Penobscot County, Maine) MINOR REVISION -
DOLBY III LANDFILL) DEINKING FACILITY
#S-00796-WD-U-M (APPROVAL WITH CONDITIONS)) WASTE DISPOSAL

Only the quantities of waste generated by the deinking facility are anticipated to change; the characteristics of the waste will not change. GNP still proposes to characterize the sludge as described in Department license #S-00796-7A-R-M.

2. Department staff have reviewed GNP's request and find that increasing the quantity of ink sludge disposed of at Dolby III will not pollute any water of the State, contaminate the ambient air, constitute a hazard to health or welfare or create a nuisance, provided final characterization of sludge generated by the deinking facility demonstrates it is acceptable for disposal in Dolby III.

3. All other Findings of Fact, Conclusions and Conditions remain as approved in Department license #S-00796-7A-R-M.

BASED on the above Findings of Fact, the Department concludes the following:

A. The disposal of approximately 95 oven dry tons per day of ink sludge and general mill waste generated by a deinking facility to be constructed and operated at GNP's East Millinocket mill, as proposed by GNP will not pollute any water of the State, contaminate the ambient air, constitute a hazard to health or welfare or create a nuisance, provided GNP complies with the conditions of Department license #S-00796-7A-N-R.

THEREFORE, the Department APPROVES the above noted application of GREAT NORTHERN PAPER, INC., SUBJECT TO THE FOLLOWING CONDITIONS and all applicable standards and regulations.

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

2. All other Findings of Fact, Conclusions, and Conditions remain as approved in Department license #S-00796-7A-R-M, and are incorporated herein.

GREAT NORTHERN PAPER, INC.	3	SOLID WASTE ORDER
East Millinocket, Penobscot County, Maine	)	MINOR REVISION -
DOLBY III LANDFILL	)	DEINKING FACILITY
#S-00796-WD-U-M (APPROVAL WITH CONDITIONS)	)	WASTE DISPOSAL

3. This minor revision expires concurrently with Department license #S-00796-7A-N-R; this is GNP's Dolby III landfill renewal application, and is pending before the Department at this time.

DONE AND DATED AT AUGUSTA, MAINE THIS 15th DAY OF January, 1992.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Dean C Marriott
Dean C. Marriott, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application 12/10/91
Date application accepted for processing 12/20/91

Date filed with Board of Environmental Protection

FILED
JAN 15 1992
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

cwd

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

DEPARTMENT ORDER

IN THE MATTER OF

GREAT NORTHERN NEKOOSA CORP.	)	SITE LOCATION OF DEVELOPMENT
East Millinocket, Maine	)	AND
Penobscot County	)	SOLID WASTE ORDER
DOLBY LANDFILL III	)	SPECIAL WASTE DISPOSAL -
#S-00796-7A-R-M	)	DEINKING FACILITY WASTE
	)	FINDINGS OF FACT AND ORDER

Pursuant to the provisions of Title 38 M.R.S.A., Sections 481 et seq. and 1310 et seq. the Department of Environmental Protection ("Department") has considered the application of GREAT NORTHERN NEKOOSA CORP. ("GNN") with its supportive data, staff summary, and other related materials on file and finds the following facts:

1. GNN received approval from the Board of Environmental Protection on June 13, 1984 to construct a 70 acre landfill in the town of East Millinocket to be known as the Dolby III landfill (Order #L-000796-07-A-N). The landfill was licensed to accept sludge, wood waste, bark boiler ash and general mill waste from the GNN mills in Millinocket and East Millinocket, and municipal wastes from the towns of Millinocket, East Millinocket and Medway.

2. GNN has received approval from the Department to accept several additional waste streams: wood ash from the Signal/Sherman wood fired electricity generating facility (Order #L-000796-07-J-M); ash from the burning of demolition debris and wood wastes at sites operated by the towns of Millinocket and East Millinocket (Order #L-000796-7A-L-M); solid waste from operations at Baxter State Park, and woodlands camps and recreational camps located mostly within GNN's gate controlled lands in the West Branch area (Order #S-0796-7A-0-M); and soil contaminated with coal ash and building material from the East Millinocket mill (Order #S-0796-7D-P-N).

3. GNN now requests approval to dispose of the following wastes at Dolby III:
   A. Approximately 32 tons per day of ink sludge generated by a deinking facility to be constructed at GNN's East Millinocket mill. The sludge will contain ink particles, clay, some fiber, and some glue.
   B. Approximately 11 tons per day of general mill waste such as wire, plastic and glass.
   C. Ash containing ink sludge residuals. Dolby III is presently licensed to accept ash from the East Millinocket bark boiler generated during the incineration of bark, wood chips and primary sludge. GNN is now interested in burning ink sludge in the same boiler but has made no definite decision to do so.

GREAT NORTHERN NEKOOSA CORP. East Millinocket, Maine Penobscot County DOLBY LANDFILL III #S-00796-7A-R-M	2)))))	SITE LOCATION OF DEVELOPMENT AND SOLID WASTE ORDER SPECIAL WASTE DISPOSAL - DEINKING FACILITY WASTE FINDINGS OF FACT AND ORDER

4. Department staff ("staff") have concluded the 11 tons per day of general mill waste falls under the original Dolby III license (DEP #L-000796-07-A-N).

5. GNN has submitted deinking sludge analyses, including Toxicity Characteristic Leaching Test ("TCLP") analyses, from similar facilities. Staff have reviewed the data from the other facilities and concluded it is likely the deinking sludge from East Millinocket mill will be acceptable for disposal at Dolby III.

6. GNN has submitted a sampling and analytical plan for the chemical and physical characterization of the deinking sludge. Staff have reviewed the proposed plan and found it to be acceptable provided it is revised to include characterization of the waste in accordance with the plan at the end of the first and second months of operation of the deinking facility; under the proposed plan the sludge would not be sampled until the facility had been in operation three months.

7. GNN has not submitted a sampling and analytical plan for the chemical and physical characterization of ash containing deinking sludge. Staff are unable to conclude the ash will be acceptable for disposal at Dolby III until a sampling and analytical plan has been reviewed and approved, and analyses of the ash have been reviewed by staff and found to be non-hazardous, however staff expect the characteristics of the ash currently being generated at the bark boiler will not significantly change if deinking sludge residuals are used as a fuel in the boiler.

8. GNN proposes to place the deinking sludge in known locations within the Dolby III landfill, such that it could be removed if necessary, until the sludge has been characterized and staff have concluded it is acceptable for final disposal in Dolby III.

GREAT NORTHERN NEKOOSA CORP. East Millinocket, Maine Penobscot County DOLBY LANDFILL III #S-00796-7A-R-M	3)))))	SITE LOCATION OF DEVELOPMENT AND SOLID WASTE ORDER SPECIAL WASTE DISPOSAL - DEINKING FACILITY WASTE FINDINGS OF FACT AND ORDER

BASED on the above Findings of Fact, the Department concludes the following:

A. The disposal of approximately 32 tons per day of sludge and an unspecified quantity of ash containing deinking sludge residuals from a deinking facility to be constructed at GNN's East Millinocket mill as proposed by GNN will not pollute any water of the state, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance, provided that GNN revises the sampling and analytical plan to include analyses from sludge generated after the first and then second months of operation of the facility and the characterization of the deinking sludge shows it to be acceptable for disposal at Dolby III, and GNN submits to the Department an acceptable sampling and analytical program for the ash and the sampling results indicate the ash is non-hazardous.

THEREFORE, the Department APPROVES WITH THE ATTACHED CONDITIONS the application of GREAT NORTHERN NEKOOSA CORPORATION to dispose of approximately 32 tons per day of deinking facility sludge, and an unspecified quantity of ash containing deinking sludge residuals at the Dolby III landfill.

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

2. GNN shall, in addition to the testing specified in the proposed sampling and analytical plan, test the deinking sludge at the end of the first and at the end of the second months of operation, in accordance with the sampling and analytical plan.

3. GNN shall place the deinking sludge in locations within Dolby III where it could be removed for disposal in an alternate location if necessary and maintain records of all locations where deinking sludge is placed within Dolby III until the characterization of the waste stream verifies that it is non-hazardous and staff authorizes its final disposal in Dolby III. The records of the locations shall be available to staff upon request.

GREAT NORTHERN NEKOOSA CORP. East Millinocket, Maine Penobscot County DOLBY LANDFILL III #S-00796-7A-R-M	4)))))	SITE LOCATION OF DEVELOPMENT AND SOLID WASTE ORDER SPECIAL WASTE DISPOSAL - DEINKING FACILITY WASTE FINDINGS OF FACT AND ORDER

4. GNN shall submit to the Bureau of Solid Waste Management for its review and approval a sampling and analytical plan for characterization of ash containing deinking sludge residuals prior to the disposal of the ash.

DONE AND DATED AT AUGUSTA, MAINE THIS 14th DAY OF December, 1990.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Dean C Marriott
Dean C. Marriott, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application August 8, 1990
Date of application acceptance October 10, 1990

Date filed with Board of Environmental Protection

FILED
DEC 18 1990
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

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

DEPARTMENT ORDER

IN THE MATTER OF

GREAT NORTHERN PAPER COMPANY East Millinocket, Maine Penobscot County DOLBY LANDFILL III COAL ASH DISPOSAL #S-0796-7D-P-N	)	SITE LOCATION OF DEVELOPMENT AND SOLID WASTE ORDER FINDINGS OF FACT AND ORDER

Pursuant to the applicable provisions of Title 38 M.R.S.A., Sections 481 et seq. and 1301 et seq. the Department of Environmental Protection has considered the application of GREAT NORTHERN PAPER COMPANY with its supportive data, staff summary, and other related materials on file and finds the following facts:

1. Great Northern Paper Company ("GNP") received approval from the Board of Environmental Protection on June 13, 1984 to construct a 70 acre landfill in the town of East Millinocket to be known as the Dolby III landfill (Order #L-000796-07-A-N). The landfill was licensed to accept sludge, wood waste, bark boiler ash and general mill waste from the GNP mills in Millinocket and East Millinocket, and municipal wastes from the towns of Millinocket, East Millinocket and Medway.

2. GNP received approval from the Department on July 9, 1987 to accept approximately 19,000 cubic yards of wood ash per year from the Signal/Sherman wood fired electricity generating facility in Sherman Station, Maine (Order #L-000796-07-J-M).

3. GNP received approval from the Department on March 27, 1988 to accept ash generated from the burning of demolition debris and wood wastes at sites operated by the towns of Millinocket and East Millinocket (Order #L-000796-7A-L-M).

4. GNP received approval from the Department on April 19, 1990 to accept approximately 2,722 cubic yards of solid waste per year from operations at Baxter State Park, and woodlands camps and recreational camps located mostly within GNP's gate controlled lands in the West Branch area (Order #S-0796-7A-0-M).

GREAT NORTHERN PAPER COMPANY East Millinocket, Maine Penobscot County DOLBY LANDFILL III COAL ASH DISPOSAL #S-0796-7D-P-N	2)))))	SITE LOCATION OF DEVELOPMENT AND SOLID WASTE ORDER FINDINGS OF FACT AND ORDER

5. GNP now requests approval to accept approximately 5000 cubic yards of soil contaminated with coal ash and various building materials including a small quantity of non-friable asbestos on a one time basis. The soil was generated during excavation for a new structure at GNP's East Millinocket mill.

   GNP now also requests approval to accept up to 300 cubic yards per month on a periodic basis of soil contaminated with coal ash and various building materials as it is generated during earth moving activities at the East Millinocket and Millinocket mills. GNP has not proposed an ongoing sampling and analytical program for this waste.

6. Department staff have reviewed the analytical data for the initial 5000 cubic yards of contaminated soil and have determined the material is acceptable for disposal as proposed by GNP.

   The disposal of soil contaminated with coal ash and various building materials on a continued basis will depend on the results of periodic analysis of the waste.

7. GNP has submitted a procedure for removal of the non-friable asbestos from the contaminated soil stockpiled at the East Millinocket mill. The asbestos will be separated from the soil, bagged and transported to a landfill licensed to accept asbestos.

8. Department staff have reviewed GNP's asbestos removal procedure, and have determined the procedure to be acceptable as proposed.

BASED on the above Findings of Fact, the Department concludes the following:

A. The disposal of the initial approximately 5000 cubic yards of soil contaminated with coal ash and various building materials and up to 300 cubic yards per month on a periodic basis of soil contaminated with coal ash and various building materials by GNP as proposed by GNP will not pollute any water of the state, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance, provided that GNP proposes an acceptable analytical program for the periodic characterization of future contaminated soils.

GREAT NORTHERN PAPER COMPANY East Millinocket, Maine Penobscot County DOLBY LANDFILL III COAL ASH DISPOSAL #S-0796-7D-P-N	3))))))	SITE LOCATION OF DEVELOPMENT AND SOLID WASTE ORDER FINDINGS OF FACT AND ORDER

THEREFORE, the Department APPROVES WITH THE ATTACHED CONDITIONS the application of GREAT NORTHERN PAPER COMPANY to accept and dispose of approximately 5000 cubic yards of soil contaminated with coal ash and various building materials initially and up to 300 cubic yards per month of soil contaminated with coal ash and various building materials thereafter from GNP's East Millinocket and Millinocket mills.

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

2. Prior to disposing of any contaminated soil other than that currently stockpiled at the East Millinocket mill, GNP shall submit to the Department for its review and approval a sampling and analytical work plan designed to determine the physical and chemical characteristics of waste it proposes to dispose of at its Dolby III landfill.

DONE AND DATED AT AUGUSTA, MAINE, THIS 23rd DAY OF July, 1990.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Elizabeth A. Armstrong
Dean C. Marriott, Commissioner

PLEASE NOTE ATTACHED SHEET FOR APPEAL PROCEDURES . . . .

DRO

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

DEPARTMENT ORDER

IN THE MATTER OF

GREAT NORTHERN PAPER COMPANY East Millinocket, Maine Dolby Landfill III #S-0796-7A-0-M (CORRECTED ORDER)	)	SITE LOCATION OF DEVELOPMENT AND SOLID WASTE ORDER MINOR MODIFICATION

Pursuant to the provisions of Title 38 M.R.S.A. Sections 483 and 1301 et seq. the Department of Environmental Protection ("Department") has considered the application of GREAT NORTHERN PAPER COMPANY ("GNP") with its supportive data, staff summary, agency review comments, and other related materials on file and finds the following facts:

1. GNP received approval from the Board of Environmental Protection on June 13, 1984 to construct a 70 acre landfill in the town of East Millinocket to be known as the Dolby III landfill (Board Order #L-000796-07-A-N). The landfill was licensed to accept sludge, wood waste, bark boiler ash and general mill waste from the GNP mills in Millinocket and East Millinocket, and municipal wastes from the towns of Millinocket, East Millinocket and Medway.

2. GNP received approval from the Department on July 9, 1987 to accept approximately 19,000 cubic yards of wood ash per year from the Signal/Sherman wood fired electric generating facility in Sherman Station, Maine (Department Order #L-000796-07-J-M).

3. GNP received approval from the Department on March 27, 1988 to accept ash generated from the burning of demolition debris and wood wastes at sites operated by the towns of Millinocket and East Millinocket (Department Order #L-000796-7A-L-M).

4. GNP now requests approval to accept approximately 2,722 cubic yards per year of solid waste from operations at Baxter State Park, and woodlands camps and recreational camps located mostly within GNP's gate controlled lands in the West Branch area. The solid waste will be deposited in dumpsters and delivered to Dolby III by independent contractors. A list of potential contributors of the solid waste was submitted to the Department on March 29, 1990. Access to the dumpsters will be controlled by operators of the individual areas.

5. Staff have reviewed the data supplied by GNP and have determined that the annual addition of 2,722 cubic yards of solid waste will not significantly impact the operation of the facility or the effectiveness of the facility's design.

GREAT NORTHERN PAPER COMPANY East Millinocket, Maine Dolby Landfill III #S-0796-7A-O-M (CORRECTED ORDER)	)))	2 SITE LOCATION OF DEVELOPMENT AND SOLID WASTE ORDER MINOR MODIFICATION

BASED on the above Findings of Fact, the Department concludes that the disposal of solid waste from operations at Baxter State Park, and woodlands camps and recreational camps located mostly within GNP's gate controlled lands in the West Branch area as proposed by GNP will not pollute any water of the state, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance.

THEREFORE, the Department APPROVES WITH THE ATTACHED CONDITIONS the application of GREAT NORTHERN PAPER COMPANY to accept solid waste from operations at Baxter State Park, and woodlands camps and recreational camps located mostly within GNP's gate controlled lands in the West Branch area at the Dolby III landfill in East Millinocket, Maine in accordance with the following conditions:

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

DONE AND DATED AT AUGUSTA, MAINE THIS 19th DAY OF April, 1990.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Dean C Marriott
DEAN C. MARRIOTT, COMMISSIONER

ANY PERSON WISHING TO APPEAL AN ORDER MUST DO SO WITHIN 30 DAYS OF THE RECEIPT OF THE ORDER.

PLEASE NOTE ATTACHED SHEET FOR APPEAL PROCEDURES AND CONDITION COMPLIANCE. . .

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

DEPARTMENT ORDER

NOV 16

IN THE MATTER OF

GREAT NORTHERN PAPER CO.	)	SITE LOCATION OF DEVELOPMENT ORDER
East Millinocket, Maine	)	
DOLBY III LANDFILL	)	
#S-000796-7A-M-C	)	CONDITION COMPLIANCE

Pursuant to the provision of Title 38, M.R.S.A., Section 483, the Department of Environmental Protection has considered the application of GREAT NORTHERN PAPER CO. with its supportive data, staff summary, agency review comments, and other related materials on file and finds the following facts:

1. The applicant received conditional approval from the Board of Environmental Protection by Order dated June 13, 1984 for project #L-000796-07-A-N. The applicant has submitted evidence concerning compliance with special condition #4 of this Order.

2. Special Condition #4 reads as follows:

   The applicant shall be responsible for a construction quality control program to include, at a minimum, the following components:

   a) A State of Maine Professional Engineer shall conduct periodic on-site inspections to ensure the proper execution of plans and conditions as approved by the Board. The engineer shall certify annually that each part of the project (including closing) was constructed in accordance with the plans and conditions as approved by the Board. As-built plans shall be submitted to the Department within 60 days after each phase has been constructed. In the event the survey is not done within 60 days, the applicant shall inform the Department, in writing, when the plans will be submitted.

   b) Sieve analyses, at the rate of 1 per 500 cubic yards of sand, shall be run on the sand drainage blanket. Results of these tests shall be submitted to the Department prior to the placement of waste in each cell.

   c) The Department shall be notified, in writing, at least 3 weeks prior to the disposal of waste in any cell, so an inspection of the site preparation can be made by the staff.

3. The nature of the evidence submitted is as follows:

   a) The applicant has submitted as-built plans for the construction of cell #3. Along with the as-built plans the applicant has submitted a letter from a Professional engineer stating that the landfill was constructed in accordance with the plans and specifications.

GREAT NORTHERN PAPER CO. East Millinocket, Maine DOLBY III LANDFILL #S-000796-7A-M-C	2)))	SITE LOCATION OF DEVELOPMENT ORDER CONDITION COMPLIANCE

b) The construction of cell #3 required the placement of 5,000 cubic yards of underdrain sand. In accordance with Condition 4.B.10 seive analyses were required on the sand drainage material. The applicant submitted 13 sieve analyses and 12 permeability tests demonstrating the adequacy of the material.

c) Department staff was notified 3 weeks prior to the disposal of waste in Cell #3. Department staff have performed an inspection of the Cell #3 site preparation and found it acceptable.

4. To facilitate the improved operations and closure of the individual cells in the Dolby III landfill Cell #3 has been divided into two sections, 3a and 3b. This division will allow cell closure and cell opening on a July to July schedule. Cell 3a is sized for a projected 9 months worth of waste production, so that it will last into July, 1989. Cell #3b is sized for 12 months of waste production, so it should last into July 1990.

The applicant has submitted evidence concerning condition #4 of this order.

BASED upon the above Findings, the Department concludes that Great Northern Paper Co.has complied with Special Condition #4 of the Department Order #L-000796-07-A-N dated June 13, 1984.

DONE AND DATED AT AUGUSTA, MAINE, THIS 1st DAY OF NOVEMBER, 1988.

BOARD OF ENVIRONMENTAL PROTECTION

BY: Dean C. Marriott

Dean C. Marriott, Commissioner

Date of initial receipt of application October 6, 1988

Date of application acceptance October 14, 1988

JL/GNP/lck

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

DEPARTMENT ORDER

IN THE MATTER OF

GREAT NORTHERN PAPER COMPANY	)	SITE LOCATION ORDER
East Millinocket, Maine	)	
DOLBY LANDFILL III	)	
#L-000796-7A-L-M	)	FINDINGS OF FACT AND ORDER

Pursuant to the provision of Title 38, M.R.S.A., Sections 483, and 1301 et seq. the Department of Environmental Protection has considered the application of GREAT NORTHERN PAPER COMPANY with its supportive data, staff summary, agency review comments, and other related materials on file and finds the following facts:

1. Great Northern Paper Company received approval from the Board of Environmental Protection on June 13, 1984 to construct a 70 acre landfill in the Town of East Millinocket to be known as the Dolby III Landfill. The landfill was licensed to accept sludge, wood waste, bark boiler ash and general mill waste from the GNP mills in Millinocket and East Millinocket and municipal wastes from the towns of Millinocket, East Millinocket and Medway.

2. Great Northern Paper Company now requests approval to accept ash generated from the burning of demolition debris and wood wastes at sites operated by the Towns of Millinocket and East Millinocket. Cleanup of these sites is being required by Bureau of Land Quality Control enforcement staff.

BASED on the above findings of fact, the Department concluded that the acceptance of ash generated from the burning of demolition debris and wood wastes by the Towns of Millinocket and East Millinocket will not pollute any waters of the State, contaminate the ambient air, constitute a hazard to health and welfare, or create a nuisance.

THEREFORE, the Department APPROVES WITH THE ATTACHED CONDITIONS the application of GREAT NORTHERN PAPER COMPANY to accept ash from the Towns of Millinocket and East Millinocket at the Dolby III Landfill in East Millinocket, Maine, in accordance with the following conditions:

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

DONE AND DATED AT AUGUSTA, MAINE, THIS 27th DAY OF MARCH, 1988.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Dean C. Marriott
Dean C. Marriott, Commissioner

ANY PERSON WISHING TO APPEAL AN ORDER MUST DO SO WITHIN 30 DAYS OF THE RECEIPT OF THE ORDER

PLEASE NOTE ATTACHED SHEET FOR APPEAL PROCEDURES AND CONDITION COMPLIANCE....

GNPC/lck

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

BOARD ORDER

IN THE MATTER OF

GREAT NORTHERN PAPER CO. East Millinocket, Maine DOLBY III LANDFILL #L-000796-07-A-N	)	SITE LOCATION ORDER AND SOLID WASTE FINDINGS OF FACT AND ORDER

Pursuant to the provisions of Title 38, M.R.S.A., Sections 483 and 1301-1310, and the Solid Waste Management Rules, Chapters 400-401, the Board of Environmental Protection has considered the application of GREAT NORTHERN PAPER CO. with its supportive data, staff summary, agency review comments, comments from the public, and other related materials on file and finds the following facts:

1. The applicant proposes to develop a landfill of approximately 70 acres, according to plans YB-14788 through YB-14801 dated December 1983. The objective of the Dolby 3 landfill project is to construct a landfill for the disposal of approximately 300,000 cubic yards per year of sludge, wood wastes, bark boiler ash (less than 5 cubic yards per week of oil ash), and general mill waste from the GNP mills at Millinocket and East Millinocket and municipal solid wastes from the towns of Millinocket, East Millinocket, and Medway. No hazardous waste is proposed to be disposed at the landfill.

2. The proposed Dolby 3 landfill is located approximately 2 1/2 miles northwest of East Millinocket off Route 157. The site is on the west flank of the main drainage divide between the East and West Branches of the Penobscot River; surface water and ground water flow from the site reaches the West Branch of the Penobscot River via Partridge Brook Flowage and Dolby Pond. The proposed landfill is located directly west of the Dolby 2 landfill, which it will ultimately abut.

3. The topography of the site ranges from moderate slopes on the upper elevations to nearly flat near the flowage. A series of test pits and borings were made on the site to determine geologic and hydrogeologic conditions. These investigations have shown bedrock to be from 5 to greater than 30 feet beneath the surface of the site and to generally follow the surface topography. The surficial soils generally consist of an upper ablation (washed) till overlying a deeper basal till. The tills contain numerous boulders. The water table at the site is relatively shallow and provides a condition suitable for high runoff rates, although the dense vegetation at the site helps reduce peak flows. Ground water occurs primarily in the tills and fractured portion of the bedrock.

4. The site does not maintain a 5 foot separation between solid waste and groundwater as required by the Solid Waste Management Rules, Chapter 401, Section 2.D.2.e. The applicant argues that the site will provide for leachate collection efficiencies in excess of 90%, which is, at least in part, aided by the shallow groundwater regime.

5. The site is not located on a mapped sand and gravel aquifer.

6. The site is not located within 300 feet of any classified body of surface water.

7. The town of East Millinocket gets its water supply from a well field near the East Branch of the Penobscot River, approximately 2 1/2 miles east of the proposed Dolby 3 landfill. There is no evidence of any hydraulic connection between the landfill site and that well field.

8. The main access road to the proposed site is 2,200 feet long and 24 feet wide with 4 foot shoulders, and is off State Route 157. A 200 foot wide wooded buffer strip will be maintained between the landfill and Partridge Brook Flowage. This buffer will serve to visually screen the site from Route 157, which lies across Partridge Brook Flowage from the landfill.

9. The first year construction of Dolby 3 will include the access road to the leachate pond and Cell 1, the Cell 1 containment area and clean water diversion system, the leachate pond, and pump station. Costs for this construction are estimated to be $1,543,000. Subsequent annual development costs, in 1984 dollars, range from $350,000 to $225,000 per year. The costs of development, and the responsibility for long-term maintenance, are to be assumed by the applicant. The 1982 Annual Report of the Great Northern Nekoosa Corporation establishes the applicant's financial capability to develop the site.

10. The site is not proposed to be lined. Instead it relies upon the ground water regime, and leachate collection, to protect the ground water and ultimately Partridge Brook flowage from contamination.

11. The ground water movement on the site is horizontal or slightly downward, and the topography of the site ranges from slopes of 2% to 14%. This combination, the applicant argues, provides the equivalent of ground water discharge conditions. The applicant estimates that this will allow for the collection of 90% of the leachate entering the ground water system.

12. The landfill will have capacity for approximately 17 years at a waste generation rate of 300,000 cubic yards per year. The landfill will be constructed in cells to reduce annual leachate generation rates and to spread development costs over the life of the site. Each cell will have capacity for approximately one year of waste generation. As each cell reaches capacity, a new cell will be developed. When operations begin in a new cell, the previous cell will be covered within 14 days and vegetated during the following summer, except for cells 5 and 13 which will have cells 6 and 14 constructed immediately above.

13. Leachate will be collected from operating and closed portions of the landfill and stored in a 3.5 million gallon, synthetic-lined lagoon. The leachate will be trucked to the East Millinocket Mill's Wastewater Treatment Facility except during unusual circumstances when it will go to another licensed facility. Approximately 14 million gallons of leachate will be generated during the first year of operation. The volume of leachate generated during subsequent operational years will range from 15 to 26 million gallons per year. After site closure, approximately 11 million gallons of leachate will be collected and treated each year. The leachate collection system has been designed to utilize the natural hydrogeologic conditions at the site. A 12 inch thick sand drainge blanket (minimum hydraulic conductivity: 5.0×10^{-3} cm/sec) will be placed over the western portion of the site (below elevation 400 feet). Perforated collection pipes will be placed in constructed trenches in the cells immediately on the ground, and spaced 50 to 100 feet apart dependent upon the slope of the ground, to collect leachate which drains through the landfilled waste. Contaminated surface runoff from the cells will also be collected and piped to the leachate storage lagoon.

14. An 18-inch perforated PVC pipe will be installed along the north, west and south sides of the landfill. The depth of this pipe will be 6 feet below existing ground on the west side, and from 4 to 6 feet deep on the north and south sides; and it will serve as a ground water interceptor drain. The pipes along the north and south sides will be constructed in sections during the cell development sequence. Following cell 1, the north and south side pipes will serve to transport leachate from the internal leachate collection network and contaminated runoff to the leachate holding pond and pump station.

15. The proposed monitoring program includes quarterly monitoring for the following parameters: pH, specific conductance, water level, Ca Mg hardness, sulfate, TOC, iron, ammonia as N, and Chloride. The proposed monitoring points are: the leachate pond underdrain, the leachate itself, Partridge Brook Flowage, MW106A, MW106B, MW203, MW107A, MW107B, MW301, MW302A, MW302B, MW305A, and MW305B.

16. For the first eight cells of the life of Dolby 3, development will be confined to the southern half of the site. During that time, only MW107 A,B are directly down-gradient of the disposal area and are likely to pick up contamination, should it occur.

17. The Solid Waste Management Rules (Chapter 401, Section 4.B.5.b). require the placement of final cover which contains a minimum of 35% fines. The applicant requests a variance from this requirement to allow the use of final cover containing from 15 to 30% fines. Reasons for requesting the variance include the unavailability of material which meets the specification of 35% fines; and the fact that leachate will be collected from the landfill and treated. A six inch sand drainage blanket will be placed directly under the final cover on the entire landfill. Water collected by this sand blanket will be collected and treated as leachate.

18. A ground water computer model was generated in an attempt to mimic conditions of the site. In the opinion of the staff, that model failed to accurately represent the geological and ground water conditions of the site and has, therefore, not been used to evaluate the ultimate appropriateness of the site or of the design.

BASED on the above findings of fact, the Board 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 solid waste disposal, the control of offensive odors, and the securing and maintenance of sufficient and healthful water supplies provided an adequate construction quality control program is developed.

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

D. The applicant has made adequate provision for fitting the development harmoniously into the existing natural environment and the development will not adversely affect existing uses, scenic character or natural resources in the municipality or in neighboring municipalities provided an additional monitoring well is installed down-gradient of the southern half of the landfill to detect any contamination as quickly as possible; and provided an adequate construction quality control program is developed.

E. The proposed development will be built on soil types which are suitable to the nature of the undertaking.

F. The proposed development will not pose an unreasonable risk that a discharge to a significant ground water aquifer will occur.

G. The requested variance regarding the percentage of fines to be contained in the cover material will not increase the risk of contamination from the landfill.

THEREFORE, the Board APPROVES WITH THE ATTACHED CONDITIONS the application of GREAT NORTHERN PAPER CO. to establish and operate the Dolby III landfill in East Millinocket, Maine, and GRANTS the applicant variances from the Solid Waste Management Rules, Chapter 401 Sections 2.D.2.e. and 4.B.5.b., in accordance with the following conditions:

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

2. Exclusive of the two variances specifically granted herein, the applicant shall comply in all other respects with the Department of Environmental Protection Solid Waste Management Rules.

3. An additional monitoring well shall be installed within 150 feet west of MW304; with samples taken in the ablation till (approximate elevation: 335 feet M.S.L.) and in the shallow bedrock (approximate elevation: 325 feet M.S.L.). These two screened intervals shall be incorporated into the routine monitoring program. In addition, the monitoring results for wells 204 A and B, which are included in the Dolby II monitoring program, shall be reported with the results from the Dolby III monitoring program. The operations manual shall be revised to accurately reflect the monitoring program as approved by the Board. All quarterly monitoring results shall be submitted to the Department within 30 days of their generation.

   In the event that any monitoring points do show contamination, the Board reserves the right to require mitigation measures. These measures might include extension of the ground water interceptor drain down to competent bedrock, pumping and treating contaminated ground water, constructing a slurry wall to competent bedrock downgradient of the interceptor drain, and/or other appropriate measures as determined by the Board.

4. The applicant shall be responsible for a construction quality control program to include, at a minimum, the following components:

   a) A State of Maine Professional Engineer shall conduct periodic on-site inspections to ensure the proper execution of plans and conditions as approved by the Board. The engineer shall certify annually that each part of the project (including closing) was constructed in accordance with the plans and conditions as approved by the Board. As-built plans shall be submitted to the Department within 60 days after each phase has been constructed. In the event the survey is not done within 60 days, the applicant shall inform the Department, in writing, when the plans will be submitted.

   b) Sieve analyses, at the rate of 1 per 500 cubic yards of sand, shall be run on the sand drainage blanket. Results of these tests shall be submitted to the Department prior to the placement of waste in each cell.

   c) The Department shall be notified, in writing, at least 3 weeks prior to the disposal of waste in any cell, so an inspection of the site preparation can be made by the staff.

GREAT NORTHERN PAPER CO.
East Millinocket, Maine
DOLBY III LANDFILL
#L-000796-07-A-N

6 SITE LOCATION ORDER
) AND SOLID WASTE
)
) FINDINGS OF FACT AND ORDER

d) By June 30 of each year the applicant shall submit to the Department a report to include, at a minimum, the following: a discussion and analysis of the monitoring results up to that time; an evaluation of the landfill's performance; the volumes and types of waste disposed and a discussion of any variations from the proposed waste to be disposed; the leachate generation rates for the previous 12 months; a schedule for the closing and seeding of the cell then in use; an evaluation of the effectiveness of the leachate collection, storage, transport and treatment system; and any problems that have arisen.

e) Submission to the Department of bid-ready construction plans and documents for each yearly phase, 30 days prior to the start of construction of that phase.

DONE AND DATED AT AUGUSTA, MAINE, THIS 13th DAY OF JUNE, 1984.

BOARD OF ENVIRONMENTAL PROTECTION

BY: Samuel Zaitlin
SAMUEL M. ZAITLIN, Chairman

PLEASE NOTE ATTACHED SHEET FOR APPEAL PROCEDURES....

APPENDIX B

OPERATOR TRAINING

DOLBY LANDFILL
OPERATOR TRAINING
TYPICAL PROGRAM OUTLINE

SECTION 1 – PROGRAM INTRODUCTION

1.1 Training Course Description and Introduction
- A. Training Program Goal
- B. Distribution of Course Materials
- C. Introduction of Training Staff and Sponsor
- D. Description of Course Format
- E. Schedule Review

1.2 Maine Certification Rules
- A. Intent of the Certification Rules
- B. Certification Rule Requirements

1.3 Types and Characteristics of Solid Waste
- A. Definition of Hazardous and Non-Hazardous Solid Waste Materials
- B. Industrial Solid Waste
  1. Production (Mill) Waste
  2. Industrial Wastewater Treatment Sludge
- C. Waste Not Approved for Landfilling

1.4 Environmental Concerns and Regulations
- A. Public Concern About Environmental Impact
- B. Historic Landfill Issues
- C. Solid Waste Landfill Environmental Impacts
  1. Groundwater Quality Impact
     a. Groundwater Pollutants
  2. Air Emissions Impact
  3. Surface Water Impact
  4. Other Local Site Impacts
     a. Odor
     b. Dust
- D. Status of Solid Waste Management and Landfill Regulations in Maine

SECTION 2 – LANDFILL DESIGN

2.1 Leachate Collection and Management
- A. Leachate Generation
- B. Leachate Characteristics
- C. Leachate Collection System Design Criteria
  1. Types and Purpose
  2. Drainage Materials
  3. Filtration Materials
  4. Design by Function Concept
- D. Leachate Collection System Design
  1. Granular Soil Drainage
  2. Perforated Collector Pipe
  3. Geonet Drainage

4. Granular Soil Filter
5. Geotextile Filter

E. Leachate Disposal

2.2 Landfill Gas Collection and Management

A. Solid Waste Landfill Gas Generation
   1. Biological Decomposition of Wastes
      a. Biological Processes
   2. Landfill Gas Characteristics
      a. Properties of Major Constituents
         i. Methane
         ii. Carbon Dioxide
         iii. Safety Procedures

B. Solid Waste Landfill Gas Collection
   1. Passive Collection Systems: Design Considerations
      a. Perimeter Systems
      b. Interior Systems

2.3 Capping and Closure Design

A. Purpose of Landfill Capping
B. Intermediate and Final Cover
C. Cap Design and Construction

SECTION 3 – LANDFILL OPERATIONS

3.1 Operations Plan – Development and Use

A. Operations Plan Design
B. Typical Operations Plan Components
   1. Staffing and Job Descriptions
   2. Equipment Operations and Maintenance
   3. Definition and Monitoring of Acceptable Waste
   4. Operating Procedures
   5. Contingency Procedures
   6. Monitoring/Reporting Requirements
   7. Health and Safety Procedures
C. Operations Plan Modification

3.2 Waste Receipt and Traffic Control

A. Delivery Vehicle Site Access
B. Waste Volumes and Types
   1. Records and Recordkeeping
C. Workface Access
D. Hot Loads

3.3 Workface Operations

A. Waste Delivery Coordination
B. Off-load Inspection
C. Adverse Conditions Operations
   1. Winter
   2. Mud Season

3.4 Waste Compaction

A. Reasons for Compaction
    1. Effective Use of Air Space
    2. Surface Control
B. Types of Compaction Equipment
C. Monitoring of Compaction Results

3.5 Waste Handling

A. Incinerator Ash
    1. Placement in Landfill
        a. Blowing
        b. Compaction
        c. Waste lift heights
B. Paper Mill Sludge
    1. Placement in Landfill
        a. Water content
        b. Compaction
        c. Waste lift heights

3.6 Waste Identification and Restriction

A. Definition of Acceptable and Unacceptable Solid Waste
B. Detection and Prevention of Unacceptable Wastes
C. Purpose of Waste Identification and Restriction
    1. Protection of Human Health and the Environment
        a. Operator and waste hauler safety
        b. Compatibility with other wastes and materials of construction
        c. Leachate treatability and disposal
        d. Groundwater protection
    2. Operator Risk Reduction
        a. Explosions
        b. Health risk associated with exposure to chemicals
    3. Prevention of Illegal Dumping
        a. Increased risk of detection of illegal dumpers
        b. Penalty to non-conforming haulers
D. Procedures for Inspection and Restriction
    1. Waste Receipt Training
        a. Recognition and identification of excluded wastes
        b. Safe handling of unacceptable materials (hazardous wastes and PCBs)
        c. Health and safety procedures (OSHA)
    2. Source Controls
    3. Potential Wastes that Require Inspection
        a. Wastes in drums or other container not normally used for disposal
        b. Wastes in containers with DOT or other descriptive labels
        c. Sludges and materials with liquid content
    4. Notification of Proper Authorities (if hazardous wastes delivered to site)
        a. MDEP
        b. Waste received and source
        c. Steps taken to remove and dispose of wastes
E. Management of Unacceptable Wastes
    1. Waste in Possession of Hauler
        a. Hauler retains materials (proof is on hauler to show that waste meets disposal criteria in landfill
    2. Waste in Possession of Landfill

a. Waste is responsibility of landfill operator and must be managed according to regulations
b. Screen, store, and/or test waste as appropriate
c. Treat, store, or dispose of in accordance with RCRA and applicable state regulations

3.7 Daily and Intermediate Cover

A. Cover Material Requirements
   1. Daily Cover
   2. Interim Cover
   3. Final Cover
B. Purpose of Daily and Intermediate Cover
   1. Control
      a. Fires
      b. Odors
      c. Blowing litter
   2. Other Potential Benefits
      a. Control infiltration (with some covers)
      b. Control gas migration (with some covers)
      c. Provide vehicle access
C. Types of Cover Materials
   1. Soil Cover
   2. Sludge
D. Methods of Covering
   1. Soil
      a. 6-inch sand or gravel (minimum)
      b. Compacting
      c. Coarseness versus permeability
      d. Disposal capacity loss
   2. Alternate covers
      a. Sludge

3.8 Surface Water Control

A. Requirements
   1. Control run-on and run-off
B. Purpose of Surface Water Control
   1. Prevent discharge of pollutants from the landfill into water or wetlands
   2. Prevent water from running onto the landfill
      a. Erosion problems
      b. Infiltration into the wastes and creation of additional leachate
C. Methods of Control
   1. Perimeter ditches
   2. Berms on landfill surface
   3. Siltation fences, hay bales, etc.
   4. Sedimentation basins
   5. Mulch, jute matting

3.9 Site Security

A. Operating Schedules
B. Traffic and Access Control
   1. Natural barriers
   2. Installed barriers

C. Procedures for Controlling Unauthorized Dumping

3.10 Enforcement
- A. Environmental Regulations
  - 1. Spills and releases
- B. Site Rules and Regulations

3.11 Complying with Design Requirements
- A. Types of Landfill Plans
  - 1. Site Plans
  - 2. Contour Maps
    - a. Preconstruction grading
    - b. Construction grading
    - c. Final grading
  - 3. Cross-section
    - a. Landfill
    - b. Construction
  - 4. Phasing Plans
- B. Surveys
  - 1. Measurement of Field Slopes
  - 2. Measurements of Elevations
  - 3. Location Surveys
- C. Capacity Use Monitoring
  - 1. Capacity Survey
  - 2. Calculation of Areas and Volumes
- D. Regular Inspections

SECTION 4 – LANDFILL MAINTENANCE

4.1 Maintenance Program Design
- A. Types of Maintenance
  - 1. Reactive Maintenance
  - 2. Preventative Maintenance
- B. Philosophy of Preventative Maintenance
- C. Elements of a Preventative Maintenance Program
  - 1. Monitoring and Inspections
  - 2. Fixed and Variable Period Maintenance

3. Major Preventative Maintenance Tasks and Overhaul
- D. General Site Maintenance
  - 1. Erosion Control
  - 2. Drainage Control
- E. Leachate Management System Maintenance Program
- F. Gas Management System Maintenance Program

4.2 Groundwater Monitoring and Control
- A. Monitoring Requirements and Regulations

4.3 Leachate Collection System Maintenance
- A. Maintenance and Repair of Structural Systems
  - 1. Manholes
  - 2. Annual Cleaning of Collection Headers
  - 3. Sumps

B. Maintenance and Repair of Mechanical Systems
    1. Pumps
    2. Sensors

4.4 Surface Water Control
A. Erosion Control
B. Repair of Drainage Swales and Waterways
C. Cleaning and Dredging of Retention and Sedimentation Basins

4.5 Gas Collection System Maintenance
A. Maintenance and Repair of Structural Systems
    1. Vents
    2. Collection Headers

4.6 Heavy Equipment Management
A. Major Operating Equipment
    1. Mobile Equipment
        a. Compaction equipment
        b. Excavation/earth moving equipment
B. Forms of Heavy Equipment
    1. Compaction Equipment
    2. Earth Moving Equipment
C. Compaction Equipment
    1. Types and Sizing of Compaction Equipment
    2. Operation of Compaction Equipment
    3. Maintenance of Compaction Equipment
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APPENDIX C

EQUIPMENT INSPECTION AND MAINTENANCE FORMS

DOLBY LANDFILL -- OPERATORS COMMENTS

Date_____

COMMENTS AND CONCERNS:

#1 PUMP:_____

#2 PUMP:_____

LAGOON LEVEL:_____

RAIN GAUGE:_____

VEHICLE CHECKS AND CONCERNS

Dozer:

PICK-UP:

_____

OPERATORS SIGNATURE

APPENDIX D

SPECIAL WASTE DISPOSAL PERMIT

Special Waste Disposal Permit
Instruction Sheet

Before any non-routine or unusual waste materials may be disposed of at Dolby Landfill, and before any waste will be accepted from a Contractor or other outside party, a Special Waste Disposal Permit must be completed by the party requesting disposal. All entries must be complete before SPO's Environmental Affairs Representative can approve the disposal.

Most of the required information is self-explanatory. The following may be helpful where this is not the case:

1. Concerning the question on "Mill Generating Material", a separate permit is required for the East Millinocket and Millinocket Mill.

2. The section on "Date of Disposal" beginning and ending dates are primarily for situations where several loads will be delivered over an extended period of time. If deliveries will extend beyond the anticipated ending date or if the total volume to be disposed of increases significantly, a new permit must be completed.

3. Under "Contractor(s) Hauling Material" and "Contractors(s) Telephone No.", the primary hauler and any possible alternate haulers should be listed. If the hauler is a company employee, simply identify the mill department rather than a contractor.

Please keep in mind the following as well:

1. No one may dump any waste without first going to the operator for instructions on where to put the material.

2. No hazardous waste can be accepted at Dolby Landfill.

3. No liquid waste can be accepted at Dolby Landfill. If material will flow free from the delivery vehicle, it is not "solid waste". It may be possible to dispose of some liquid wastes to the Wastewater Treatment Plant, **but only with the prior approval of SPO's Environmental Affairs Representative.**

4. Even when waste is accompanied by a signed Special Waste Disposal Permit from SPO's Environmental Affairs Representative, the Landfill Operator has the authority to refuse to accept it if he has reason to believe it does not match the description on the permit. An example would be material described as "sludge" which is fluid enough to flow through a hose

SME fax# (207)829-5692

Special Waste Disposal Permit

Request to Dispose of Special Waste at Dolby Landfill

(To be completed by Mill's Environmental Manager)

(Note: Before any non-routine or unusual waste materials may be disposed of at Dolby Landfill, and before any waste will be accepted from a Contractor or other outside party, a Special Waste Disposal Permit must be completed by the part requesting disposal. All entries must be complete before SPO's Environmental Affairs Representative can approve the disposal.)

Date:_____

Mill and Department Generating Material:_____

_____

(NOTE: Separate permits are required for East Millinocket and Millinocket Mills)

Description of Material:_____

_____

_____

_____

Total Volume to be Disposed:_____

Date for Disposal: Beginning _____ **Ending** _____

(NOTE: If deliveries will be extended beyond the anticipated ending date or the total volume to be disposed of increases significantly, a new permit must be completed.)

Contractor(s) Hauling Material:_____

_____

_____

(NOTE: The primary hauler and all possible alternative haulers must be listed)

Contractor(s) Telephone No.:_____

_____

Signature of Person Making Request and Telephone No.

To: Landfill Operator
From: SPO's Environmental Affairs Representative

Approval ☐ **Denial** ☐

Reason for Denial:_____

_____

_____

SPO's Environmental Affairs Rep. Signature

Original to File
Make copy for Landfill Operator

APPENDIX E

PETROLEUM CONTAMINATED SOIL ACCEPTANCE PROCEDURE

SPO Maine State Planning Office

PAUL R. LEPAGE
Governor

RICHARD SWANSON
Acting Director

PROPOSED SPECIAL WASTE ACCEPTANCE PROCEDURE FOR DOLBY LANDFILL

The Maine State Planning Office (SPO) proposes the following Special Waste Acceptance Procedure for the waste streams the Department authorizes the SPO to accept or deny disposal at the Dolby Landfill based on the SPO's review of the data available on the waste streams. Prior to the disposal of any petroleum contaminated soils at the landfill, a thorough review process will be undertaken by the SPO to verify that the materials proposed for disposal are acceptable. Generators requesting disposal at the landfill will be directly contacted by a SPO representative, who will gather the appropriate paperwork for the review of the waste directly from the generator. The required paperwork includes sampling and analytical data, as well as a profile sheet identifying the process generating the waste and its physical nature. Disclosure statements will be required from the generator to certify that the samples are representative of the wastes proposed for disposal, the accuracy of the sampling and results, and that no hazardous wastes are known to be present in the waste.

A complete package of information will then be forwarded to the SPO representative, who will scrutinize the package to assure that the analytical data is complete and that the results are acceptable. In addition, details such as sample holding times, analytical methods and laboratory QC/QA compliance will be reviewed against the standards provided in the Special Waste Characterization Plan. If assured that the proper protocol has been performed for the waste in question and the results are satisfactory, the SPO representative will authorize acceptance of the waste. Management or operational constraints may be placed by the SPO on acceptance of the material, as necessary.

After authorization is approved by the SPO, the SPO will contact the generator and inform them that the waste can be accepted for disposal at the landfill. The information about the generator and the waste shall be provided to the Landfill Operator, where it will be verified when the waste arrives at the facility. The Landfill Operator will receive direction from the SPO as to the placement of the waste. Assuming that there are no discrepancies in the data, the waste will be accepted for disposal upon arrival.

SPO will maintain a daily log which includes documentation of authorization for disposal of all special wastes received, dates of disposal, and approximate locations of disposal. Additionally, the sampling and analytical data, profile sheets, receipts of certification from the Department's Response Services, authorizations for disposal, and log of all special wastes

disposed in the landfill must be submitted to the Department's Solid Waste Management Division, Northern Maine Regional Office, on a quarterly basis. Any applicable 'waste fee' due to the State's Solid Waste Management Fund shall be collected by the SPO and forwarded for deposit in that Fund's account.

3. WASTE CHARACTERIZATION PLAN

Waste characterization shall be conducted for each waste at the generation source prior to disposal. The SPO will receive and dispose of the listed categories of special wastes solely on its review of the characterization information supplied by the generator, and in accordance with the special waste acceptance procedure described in Finding of Fact #2, above. If a characterized waste authorized by the SPO for disposal cannot be immediately disposed of in the landfill, then the waste must be stored in the special waste staging area at the Landfill. Since the landfill is currently only accepting waste once per week, or less frequently, waste stored in the special waste staging area shall be placed in the landfill or used as daily cover at the end of that working day. The landfill will not accept for disposal wastes that are determined to contain free liquids according to the Paint Filter Liquids Test (Method 9095 of EPA SW-846, 4th Edition).

A. Non-Recoverable Oily Waste

Petroleum contaminated soil and debris generated from remedial activities may be disposed of only with receipt of the appropriate profile sheet. This sheet must be signed by the generator and a representative of the Department, if necessary, certifying the type of petroleum product (e.g. gasoline, waste oil), its intended use, and results of the appropriate analysis described below.

(1) Gasoline contaminated soils and debris. Gasoline contaminated soils and debris may be disposed only after the SPO's receipt and review of the analytical data verifies that the waste is non-hazardous by TCLP. Gasoline contaminated soils and debris generated from remedial activities of underground storage tanks (defined and regulated under 40 CFR Parts 261 and 280) shall be analyzed for TCLP-Lead only. Contaminated soils and debris from surface storage facilities and surface spills shall be analyzed for TCLP-Lead and Benzene. Analysis shall be conducted at a frequency of one sample per source, or per 500 tons, whichever is more frequent. If knowledge of the product and site history indicate that leaded gasoline was not stored at the site, TCLP-lead analysis will not be required.

(2) Soils and debris contaminated with virgin petroleum products other than gasoline. The SPO proposes to accept only virgin petroleum products (other than gasoline) generated from remedial activities of underground storage tanks, surface storage facilities, and surface spills, and only when the Department's Response Services has provided the SPO a receipt of certification (virgin oil form). Staff comments that no analytical testing of this waste stream is required under these circumstances.

4. HANDLING

The SPO submitted a Special Waste Characterization Plan that is a supplement to its Operation and Maintenance Manual for the landfill. Section B of the plan details how special wastes will be handled and disposed of at the landfill. The plan states that the landfill operator will be responsible for identifying all incoming wastes. In addition, the landfill operator will be responsible for the proper handling and disposal of the special wastes into the landfill.

APPENDIX F

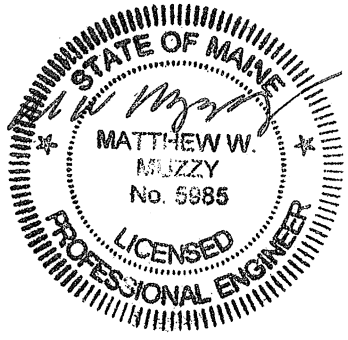
CELL 16 AND CELL 17 FILLING AND MONITORING PLANS

CELL 16 GEOTECHNICAL MONITORING PLAN
REVISION 3
DOLBY III LANDFILL,
EAST MILLINOCKET, MAINE

FOR

STATE PLANNING OFFICE
AUGUSTA, MAINE

November 2011



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CELL 16 GEOTECHNICAL MONITORING PLAN REVISION 3
DOLBY III LANDFILL,
EAST MILLINOCKET, MAINE

1.0 OVERVIEW

Dolby III Landfill in East Millinocket, Maine is an industrial landfill that is used for the disposal of papermaking residuals. The primary waste hauled to the Landfill is wastewater sludge, which due to its properties can create slope stability concerns. The purpose of this monitoring plan is to describe the on-site inspections, surveying, and reporting procedures that will be followed to periodically evaluate slope stability at the Dolby III Landfill.

The historically observed heaving within Cell 16 and settling in Cell 15 are believed to have been the result of: (1) excessive pore water pressure conditions within the landfill; (2) excess stress due to rapid material placement near the western sideslope in Cell 15; (3) construction activities related to the base of Cell 16; and (4) unusually high precipitation. Based upon the current rate at which materials are placed in the landfill, less than 2,000 cubic yards per month, geotechnical monitoring of the Dolby III Landfill, as it relates to filling of Cells 15 and 16, will include the following seven items, as summarized in Table 1:

1) Standpipe Piezometer Readings;
2) Vibrating-wire Piezometer Readings;
3) Photographs and Observations;
4) GPS Surveying;
5) Data Review;
6) Reporting; and
7) Adjustments to Filling Plan.

TABLE 1

SUMMARY OF MONITORING PROGRAM

Monitoring Element	Normal Monitoring Frequency	Reported to MEDEP	Action Level
Standpipe Piezometer Readings	Bi-Monthly	Semi-Annually, unless a Moderate Action Level is exceeded (Table 2)	See Table 3
Vibrating-wire Piezometer Readings	Bi-Monthly		See Table 4
Photographs and Observation	Bi-Monthly		See Table 5
GPS Surveying	Semi-Annually	Annually, unless a Moderate Action Level is exceeded	See Table 6
Data Review	On-Going	Raw data, if a Moderate Action Level is exceeded (Table 2)	
Reporting	Annually	Bi-monthly status email, Quarterly Report	Not Applicable
Adjustments to Filling Plan	On-Going	On-Going	Not Applicable

Notes:
Bi-monthly: November, 2011, January, 2012, March 2012, May, 2012, etc.
Semi-annually: November, 2011, May, 2012, etc.
Annually: With other annual landfill reporting for each calendar year.

1.1 Standpipe Piezometer Readings

Standpipe piezometers P-08-9, 10, 12, 13, and 17 will be measured bi-monthly and recorded on the form in Attachment 1, which includes:

- Enter the make, model, and serial number for the **Meter Used**, in case multiple meters are used.
- Measurements of the **Depth to Water**, as measured from the top of PVC, shall me made.
- To confirm piezometer integrity and that the proper piezometer has been measured, the **Bottom Depth** will be measured, as the depth from the top of the PVC to the deepest point the water level probe will drop under its own weight.
- Whether or not an **Action Level Exceedance** has occurred needs to be documented. Should a measurement need to be confirmed (i.e., a Low Action Level criteria has been met, where a current reading is greater than +/- 0.5 feet from the previous reading at the monitoring frequency), only the first reading

needs to be recorded, and Confirmed will be entered on the form next to the measurement. Should a Moderate Action Level be met, Moderate will be entered.

- Document if the seven piezometers (P-08-12A; P-08-14A through C; and P-08-15 A through C) have either been damaged or buried by landfilling.

1.2 Vibrating-wire Piezometer Readings

Vibrating-wire piezometers (VW-08-13, 14, 16, and 17) will be measured bi-monthly and recorded on the form in Attachment 1, which includes:

- Readout Box Used: Enter the make, model, and serial number for the **Readout Box Used**, in case multiple meters are used or equipment changes.
- Measurements with the readout box will be made using the **Digits** setting on the Readout Box.
- The **Temperature** for each reading will be recorded.
- Whether or not an **Action Level Exceedance** has occurred needs to be documented. Should a measurement need to be confirmed (i.e., where a current reading is greater than +/- 16 Vibration-Wire Piezometer Digits different than the prior reading), only the first reading needs to be recorded, and Confirmed will be written on the form to document the accuracy of the current reading. Should a Moderate Action Level be met, Moderate will be entered after the reading is confirmed.
- The **Distance to Filling/Traffic** from each piezometer will be estimated. This information should consider only the work since the last reading was made and is necessary to evaluate Action Levels. **Notes**, such as: lift thickness, temporary stockpiles, snow pack, visible ponded water, etc. will also be recorded.

1.3 GPS Surveying

To supplement the November 2011 and other historic surveys of Dolby III, additional surveying to determine horizontal and vertical location using consistent GPS techniques will be performed, including:

- Eleven six-foot-long steel Displacement Monitoring Rods that were set into the western slope of Cell 9 along five profiles, to monitor the movement of that slope;
- The ground surface at each of the Piezometers (P-08-09, 10, 12, 13 and 17);
- Ten Displacement Monitoring Rods along the western perimeter berm of Cell 16;
- Each of the above three items shall be surveyed semi-annually;
- Observed features which meet Moderate Action Level criteria will be located and quantified; and
- Data will be reduced and included in the next annual report, unless a Moderate Action Level is exceeded.

1.4 Photographs and Observations

Photographs will be taken bi-monthly, at the time of the Vibrating-wire Piezometer readings, at previously established locations. One photograph will be taken from near the vibrating-wire readout "hub" looking northward; the others shall be taken from near the sedimentation pond looking eastward to form a panoramic view using flags placed by SME on the leachate pond fence; and each photograph will be taken from the same location of the same approximate area to facilitate comparison of active filling areas over time. In addition to this, SME will observe the surface of the Dolby III Landfill for signs of structural distress (e.g., cracking in Cells 15 and 16, heaving in Cells 16 and 9, standing water, and excessive seepage in Cells 15 and 16) by completing the form in Attachment 1, and take supplemental photographs as necessary.

During Standpipe and Vibrating Wire Piezometer Readings, document the following observations on the form in Attachment 1:

- Surface Cracking: Surface cracks in the waste can range in width from less than an inch to several feet. Cracks may be concentric about the center of a moving mass. Generally, cracks will be near parallel to slope contours and in areas of higher elevation. Cracks in actively filled areas may be of less significance, but should be documented as such. Cracking at the toe of the slope is as important to note as on the waste slope or crest.
- Leachate Seeps or Boils: Any expression of liquid on the surface of the waste. May be on a sideslope or flat surface. May result from truck traffic in periods when precipitation is low.
- Gas Seeps: May be evident by a lack of surface vegetation, dead plants and or animals, strong rotten egg odor and/or bubbling in pools of standing water.
- Standpipe Movement: Visible evidence of horizontal or vertical movement of PVC standpipes or protective casing. Standpipe may be tilting, laid-over or otherwise out of vertical. A protective casing may have heaved above piezometer(s) within, or it may have moved downslope.
- Surface Heaving: Visibly noticeable vertical uplifting of the waste surface. Typically downslope or at the toe of any slope movement. May not be apparent without measurement. Not to be confused with surface sloughing near an active face.
- Soft Ground: If the waste surface is spongy when walking or vibrates from nearby equipment traffic, a note of such observations should be documented.
- Other: Any non-typical observation pertaining to things such as filling operations, water conditions, slope geometry, etc should be documented.
- None: There are no observations suggestive of slope movement or instability.

1.5 Data Review

SME will maintain a spreadsheet containing all monitoring data; a log of observations and photographs; and the evaluation of that data. Data review will include comparison of data to Action Levels, assessment of observations and tracking of fill placement. Pore water pressures will be compared to those expected due to filling and precipitation, to aid in updating the Filling Plan. Plots of data over time will be generated. Particular attention following periods of

precipitation and prior to spring melt will be applied, since these periods are anticipated to produce the greatest change in pore water pressure conditions. Precipitation data will be gathered from a nearby source and considered in data review.

1.6 Data Evaluation

Data will be evaluated by SME starting within 24 hours after a Moderate or High Action Level is identified through review of field data by a qualified geotechnical engineer. Evaluation may include stability analysis using the collected data.

1.7 Reporting

SME will provide MEDEP regular reports, as described herein on a bi-monthly basis, until this monitoring plan is modified.

1.8 Adjustments to Filling Plan

Monitoring will be used to direct fill placement in Cells 15 and 16, in order to mitigate the potential for movement of waste materials outside Dolby III. This plan is based on a relatively slow waste placement rate (compared to historical rates) of less than about 2,000 cubic yards per month. Should the waste placement rate be exceeded or signs of unusual movements within the landfill be observed, this monitoring plan may be adjusted temporarily and MEDEP notified.

2.0 MONITORING PLAN

2.1 Data Management

SME will collect pore-water pressure readings, piezometer measurements, and observations in accordance with the normal monitoring frequencies in Table 1 and record them on the form in Attachment 1. SME will enter data into a spreadsheet for data manipulation; photographs will be analyzed to determine fill locations and approximate volumes; and observations will be added to a log; within one week of data collection. Data will be made available to MEDEP, as described in Reporting.

2.2 Action Levels

Action levels (see Tables 3 through 6) as defined herein are subject to modification based on observed conditions, as approved by MEDEP. Based on the conceptual model of the mechanisms which have historically caused heaving in the base of Cell 16, standpipe, and vibrating-wire piezometer pore pressure values that reasonably produce a factor of safety of 1.0, have been established. Table 2 provides a tiered Action Level system, where varying degrees of importance are assigned to a broad range of possible data values. The values in these tables have been adjusted from previous values to reflect historically observed variability and the current monitoring intervals. "Acceptable" data means no Action Levels have been reached. Action levels, actions, and reporting requirements are described later in this Plan for each type of data to be collected.

TABLE 2

ACTION LEVELS

Monitoring Elements	Action Levels	Action	Reported to MEDEP
Standpipe Piezometer Readings	Table 3		
	Low	Confirm	Semi-annually
	Moderate	Increase Monitoring	Bi-monthly
	High	Action Determined by Data Evaluation	Within 1 week
Vibrating-wire Piezometer Readings	Table 4		
	Low	Confirm	Semi-annually
	Moderate	Increase Monitoring	Bi-monthly
	High	Action Determined by Data Evaluation	Within 1 week
Photographs and Observation	Table 5		
	Low	Adjust Filling Plan	Semi-annually
	Moderate	Action Determined by Data Evaluation	Bi-monthly
	High	Action Determined by Data Evaluation	Within 1 week
	Extreme	Action Determined by Data Evaluation	As soon as Possible
GPS Surveying	Table 6		
	Low	Confirm	Annually
	Moderate	Increase Monitoring	Within 1 week
	High	Action Determined by Data Evaluation	Within 1 week
	Extreme	Use Temporary Storage	As soon as Possible

2.3 Standpipe Piezometer Readings

The Action Levels in Table 3 apply to field readings and also include Action Levels to be assessed in the office through data evaluation. Consideration of precipitation shall be made.

TABLE 3

STANDPIPE PIEZOMETER ACTION LEVELS

	Low	Moderate	High
Field Readings:			
Depth to Water	Change of more than +/- 1.5 feet*	Change of more than+/- 3.0 feet*	--
Bottom Depth	Change of more than +/- 0.5 feet*	Change of more than +/- 1.0 foot* Probe gets stuck in casing or is difficult to withdraw	--
Office Data Evaluation:			
Vertical Hydraulic Gradient	--	Change of +/- 0.3 between nested pairs*	Chance of +/- 0.45 between nested pairs*
Overall Value	--	greater than 50% of fill thickness above active cell base	greater than 100% of fill thickness above active cell base
Data Trend	--	3 consecutive increases of 0.5 feet or more	3 consecutive increases of 1.0 foot or more

Note
* Change in value from previous reading.

2.4 Vibrating-wire Piezometers

The Action Levels in Table 4 represent feet of head, where one foot of water head corresponds to 16 digits on the vibrating-wire digital readout box. Consideration of precipitation shall be made, in addition to proximity of loading.

TABLE 4

VIBRATING-WIRE PIEZOMETER ACTION LEVELS

	Low	Moderate	High
Field Readings:			
When filling is within 100 feet of piezometer	Change of more than+/- 1.5 feet*	Change of more than+/- 3.0 feet*	--
When filling is beyond 100 feet of piezometer	Change of more than +/- 1.0 foot*	Change of more than+/- 1.0 foot*	--
Office Data Evaluation:			
o Vertical Hydraulic Gradient	--	Chance of +/- 0.3 between nested pairs*	Chance of +/- 0.45 between nested pairs*
o Overall Value	--	greater than 50% of fill thickness above active cell base	greater than 100% of fill thickness above active cell base
o Data Trend	--	3 consecutive increases of 1.0 foot or more	3 consecutive increases of 2.0 feet or more

Notes:
* Change in value from previous reading.
Sixteen (16) digits on the vibrating-wire box correspond to approximately one foot of water head.

2.5 Photographs and Observations

During Standpipe and Vibrating Wire Piezometer Readings, observations will be made and compared to the Action Levels listed in Table 5, in addition to those made when photographs are taken.

TABLE 5

OBSERVATION ACTION LEVELS

	Low	Moderate	High
Surface Cracking	Greater than 1 inch	Greater than 3 inches	Greater than 6 inches
Leachate Seeps	Wet area, no recent precipitation	Flowing water, no recent precipitation	Flowing water, transporting solids, no recent precipitation
Gas Seeps	Bubbling, local loss of vegetation	Hissing, vegetative stress greater than 10 ft^2	Strong odor, vegetative stress greater than 10 ft^2
Standpipe Movement	Leaning over of casing or risers	Noticeable change in height relative to ground surface	Change in relative height of nested pairs
Surface Heaving	At a distance the base of Cell 16, or the surface of Cell 9 looks elevated	Change in surface water flow direction, berm shifting or can see different views from the same location	The ditch east of cell 9 is narrower, the surface of Cell 16 or 9 is visibly higher
Flow in Cell 16 Manhole		Precipitation or snow melt does not cause an increase in flow	Flow stops, when otherwise expected to continue
(other)			

2.6 GPS Surveying

Heaving has historically been observed in Cell 16 during the filling of Cell 15 and corresponding settling has been observed in Cells 9 and 10. Based on a review of the available information, SME has established actions levels as summarized in Table 6. The landfill is made of highly compressible materials, and filling in Cells 15/16 will cause some degree of movement that will generally decrease with distance from the filled area.

TABLE 6

GPS SURVEYING ACTION LEVELS

	Displacement Monitoring Pins	Cell 16 Perimeter Berm	Piezometers
Low	Horizontal greater than 0.1 feet Vertical greater than 0.05 feet	Horizontal greater than 0.5 feet Vertical greater than 0.1 feet	Horizontal greater than 0.5 feet Vertical greater than 0.25 feet
Moderate	Horizontal greater than 0.5 feet Vertical greater than 0.25 feet	Horizontal greater than 1.0 feet Vertical greater than 0.25 feet	Horizontal greater than 1.0 foot Vertical greater than 0.5 feet
High	Horizontal greater than 1.0 foot Vertical greater than 0.5 feet	Horizontal greater than 2.0 feet Vertical greater than 0.5 feet	Horizontal greater than 2.0 feet Vertical greater than 1.0 foot
Extreme	Horizontal greater than 2 feet Vertical greater than 1.0 foot	Horizontal greater than 4 feet Vertical greater than 1.0 foot	Horizontal greater than 5 feet Vertical greater than 2.0 feet

2.7 Adjustments to Filling Plan

The Filling Plan may be modified based on data evaluation using the following general guidelines.

- Low: Areas become filled; or weather required changes to fill placement are necessary.
- Moderate: Surface seeps (pumping) along truck routs develop and are continued; or a Moderate Action Level is met.
- High: A High Action Level is met.
- Extreme: A High Action Level is met for: movement of the monitoring pins along the Cell 9 slope; movement of the berm west of Cell 16; or observed conditions existing over greater than 50 percent of Cell 16.
- Flexibility to these criteria is important, in that anticipating conditions are difficult; consequently, these are considered guidelines.

2.8 Actions

Actions will be based on data comparisons to specific Action Levels as identified in Table 2, and described below:

- Confirm: Confirm data collection of questionable data by repeating measurement, to verify accuracy.
- Increase Monitoring: Increase monthly to twice monthly, or bi-monthly to monthly. Resume original frequency after two data sets show acceptable data or Low Action Levels.
- Evaluate: If High Action Level is reached, action will be determined by data review.
- Modify Filling Plan: The Cells 15/16 Filling Plan will be updated when a modification is required. Modifications will be proposed by SME and conveyed to

the Maine State Planning Office (SPO) within one week of the Action Level being confirmed and MEDEP will be notified.

- Immediate Change to Plan: Modifications will be made by SME and conveyed to the SPO within 48 hours of the Action Level being confirmed and MEDEP will be notified.
- Use Temporary Storage: The SPO will designate a temporary storage area or other disposal location, as approved by MEDEP.

2.9 Reporting to MEDEP (of Action Level exceedances):

SME will report all exceeded Action Levels to MEDEP, as indicated in Table 2 and described below:

- Annual: A report will be sent to MEDEP that provides raw data, reviewed data, and an up-dated filling Plan.
- Bi-monthly: Email will be sent to MEDEP (Amanda Wade and Lou Pizzuti), providing a brief summary of data and Action Level status.
- Within one (1) week: MEDEP (Lou Pizzuti or a designee) will be notified by email/phone.
- Within 48 hours: MEDEP (Lou Pizzuti or a designee) will be notified by phone.
- As soon as possible: MEDEP (Lou Pizzuti, Amanda Wade, or a designee) will be notified by phone.

2.10 Data Evaluation

Data will be reviewed by SME within 72 hours when a Moderate or High Action Level is identified through review of field data; otherwise, data will be reviewed within one week of receipt.

2.11 Reporting

SME will maintain data, evaluate Action Levels, and perform data evaluations on a bi-monthly basis. Bi-monthly status reports will be provided to MEDEP. Annual data reports will be generated by SME, reviewed by the SPO, and provided to the MEDEP. Should data necessitate more immediate notification of the MEDEP (a High Action Level as indicated in Table 2), or if conditions change from those assumed, MEDEP will be notified as soon as possible.

Adjustments in filling sequence, location, and methodology will be made as necessary in accordance with both the requirements of this plan and engineering judgment, as approved by MEDEP.

ATTACHMENT 1

DATA FORMS

STATE PLANNING OFFICE
DOLBY III, CELL 15/16 MONITORING

Data Collected By: _____ Date of Measurements: _____
Equipment Used:

Water Level Meter Used: _____

Stand-pipe Piezometer Readings

Piezo. ID	Depth to Water	Bottom Depth	Action Level Exceedance?
P-08-9A			
P-08-9B			

P-08-10A			
P-08-10B			
P-08-10C			

P-08-12A	DAMAGED		
P-08-12B			
P-08-12C			

P-08-13A			
P-08-13B			
P-08-13C			

Piezo. ID	Depth to Water	Bottom Depth	Action Level Exceedance?
P-08-14A	DAMAGED		
P-08-14B	DAMAGED		
P-08-14C	DAMAGED		

P-08-15A	DAMAGED		
P-08-15B	DAMAGED		
P-08-15C	DAMAGED		

P-08-17A			
P-08-17B			
P-08-17C			

Action Levels

	Criteria	Field Action	Data Entry
Low -	A change of +/- 0.5 feet from previous reading	Confirm reading	Confirmed
Moderate -	A change of +/- 1.0 foot from previous reading	Confirm reading	Moderate

Observations

At each piezometer location, and while moving between them, note if any of the following is observed: Surface cracking, leachate seeps, gas seeps, stand-pipe movement, surface heaving, other or none. (see monitoring plan for more information)

_____

_____

_____

_____

_____

STATE PLANNING OFFICE
DOLBY III, CELL 15/16 MONITORING

Data Collected By: _____ Date of Measurements: _____
Equipment Used:

Readout Box Used: _____

Vibrating-wire Piezometer Readings

Channel	ID	Reading (Digits)	Temp.	Action Level Exceedance	Distance to Filling/Traffic and Notes
1	VW-08-12A				DAMAGED
2	VW-08-12B				DAMAGED
3	VW-08-13A				
4	VW-08-13B				
5	VW-08-14A				
6	VW-08-14B				
7	VW-08-14C				
8	VW-08-16A				
9	VW-08-16B				
10	VW-08-16C				
11	VW-08-17A				
12	VW-08-17B				

*Distance to Filling: Enter Feet to Filling Area Since Last Reading (Enter only: >100' or <100')

Notes: Include fill thickness estimate from base of Cell 16.

Action Levels

		Criteria	Action	Data Entry
Fill less than 100 feet away	Low -	A change of +/- 16 Digits from previous reading	Confirm reading	Confirmed
	Moderate -	A change of +/- 48 Digits from previous reading	Confirm reading	Moderate
Fill more than 100 feet away	Low -	A change of +/- 8 Digits from previous reading	Confirm reading	Confirmed
	Moderate -	A change of +/- 16 Digits from previous reading	Confirm reading	Moderate

Photographs and Observations

Take photographs at established locations and try to duplicate the image field. While looking at the fill area, note if any of the following is observed: Surface cracking, leachate seeps, gas seeps, stand-pipe movement, surface heaving, other or none. (see monitoring plan for more information)

_____

_____

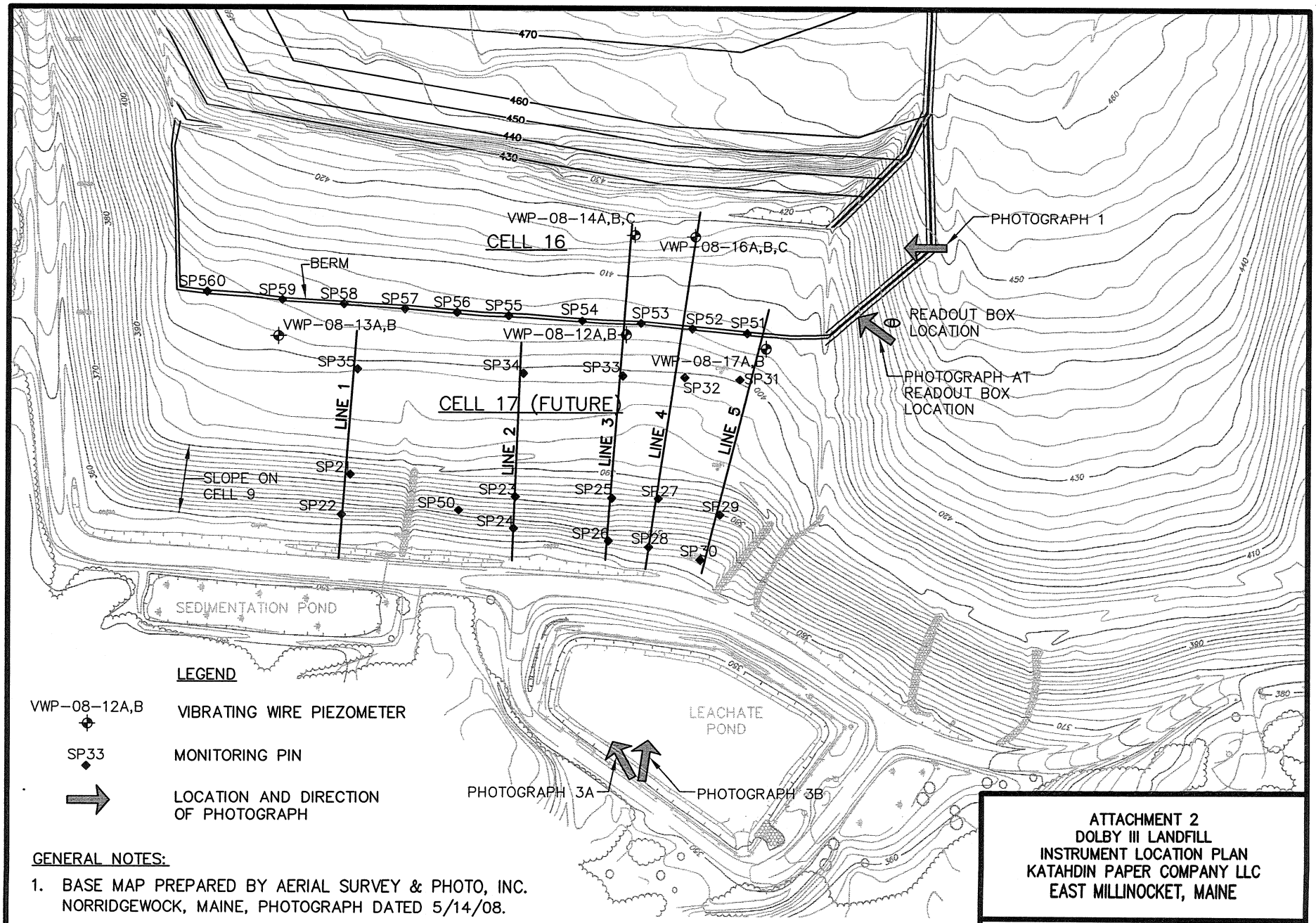
_____

_____

_____

ATTACHMENT 2

INSTRUMENT LOCATION PLAN



GENERAL NOTES:

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO, INC. NORRIDGEWOCK, MAINE, PHOTOGRAPH DATED 5/14/08.
2. GROUND CONTROL PROVIDED BY SEVEE & MAHER ENGINEERS, INC, CUMBERLAND, MAINE.

DWG: CELL16DEVELOPMENT_CELL15CLOSURE.DWG | LMN: ATTACHMENT 2 | CTB: ATTACH1 | REV: 4/23/10

ATTACHMENT 2
DOLBY III LANDFILL
INSTRUMENT LOCATION PLAN
KATAHDIN PAPER COMPANY LLC
EAST MILLINOCKET, MAINE

SME
Sevee & Maher Engineers, Inc.
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CELL 17 PHASE A

SLOPE STABILITY MONITORING PLAN

SME
Sevee & Maher Engineers, Inc.

ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

May 21, 2010

10022
2010 0511 ba.doc

Bruce Albert
Environmental Manager
Katahdin Paper Company LLC
Environmental Department
50 Main St
East Millinocket, Maine 04430

Subject: Cell 17 Phase A Slope Stability Monitoring Plan
And Fill Placement Plan
Dolby Landfill, East Millinocket, Maine

Dear Bruce:

Katahdin Paper Company (KPC) plans to construct Phase A of Cell 17 (Cell 17A) at its Dolby III Landfill in East Millinocket, Maine. Cell 17A is a four-acre cell that will be located in the western portion of the landfill. This cell is an interior landfill cell that will abut the western sideslope of Cell 16 and will be constructed above the existing Cell 9. It is KPC's intention to construct Phase B of Cell 17 in the future, which will become part of the final exterior sideslope of the Landfill. The location of Cell 17A is shown, with its final waste grades, in Figure 1.

The purpose of this letter is to transmit the Cell 17A Slope Stability Monitoring Plan (Attachment 1) and the Cell 17A Filling Plan (Attachment 2). Also included is the Cell 17A Slope Stability Evaluation that supports the Monitoring and Filling Plans (Attachment 3).

Previous observations, slope stability monitoring and geotechnical evaluation of the waste underlying Cells 15/16 during waste filling operations, demonstrated that the current waste stream, along with the existing in-place waste is composed predominantly of papermill sludge and is poorly drained. As a result, the waste is subject to increased pore pressures from waste and traffic loading. It is also evident that this waste gains strength and in turn, becomes more stable with dissipation of pore pressures due to increased drainage within the waste.

Cell 17A will incorporate design features to better manage drainage of newly placed waste and drainage of the upper portion of the existing waste in the underlying Cell 9. Figure 2 presents a generalized cross-sectional view of Cell 17A (Cross-section A-A'). This cross-section runs from west to east through Cell 17A. Cross-section A-A' includes a 5 horizontal (H) to 1 vertical (V) sideslope angle. Previous interior sideslope angles had been designed and constructed at 3H:1V, and 4H:1V (Cell 16). Because KPC's current waste stream is predominantly sludge (with significantly less stabilizing ash and municipal waste than for previous cells) and because there is historic evidence of instability associated with steeper sideslopes (Cells 15, 16 and 9), the flatter slope angle is warranted.

4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021 • Phone 207.829.5016 • Fax 207.829.5692 • www.smemaine.com

To improve the stability of the Cell 17A sideslope during the operational period, enhanced drainage measures have been developed for this Cell:

- A 12-inch thick sand drainage layer will be placed on the entire base of Cell 17A during Cell construction.
- Twelve-inch thick sand drainage layers will be placed to separate and drain each vertical lift of waste. To the extent practical, each waste lift should be limited to 10 feet in thickness. Each interior drainage layer will extend up to 50-feet inboard from the exterior waste slope.
- A toe drain, up to 7-feet deep will be constructed with drainage sand along the entire perimeter of Cell 17A. The purpose of the toe drain is to control seepage at the toe of Cell 17A and to drain the base and interior sand drainage layers.
- A 12-inch thick sand drainage layer will be placed on the Cell 17A exterior sideslope to convey expressed leachate to the toe drain along the Cell's perimeter.
- A waste containment berm will be placed along the perimeter of Cell 17A. The berm will be constructed of compacted soil and will contain the Cell 17A waste and collect stormwater runoff and direct it to the perimeter toe drain.

Attachment 1 of this letter provides the Slope Stability Monitoring Plan prepared for Cell 17A. As part of Cell 17A construction, two vibrating-wire piezometers (VWP) will be installed in the waste underlying Cell 17A (within the Cell 9 waste) to replace VW-08-12A and B which became inoperable in December of 2009. Additional new instrumentation will include 10 displacement monitoring pins that will be placed along the Cell 17A perimeter berm. These pins will replace those from the Cell 16 perimeter berm that will be abandoned upon Cell 17A construction. The replacement piezometers and monitoring pins, along with the existing instrumentation in Cells 9, 16, and17A will be monitored during the filling of Cell 17A and the results will be regularly reviewed with respect to maintaining slope stability.

In general, the Cell 17A monitoring plan is an extension of the Cell 16 Monitoring Plan. The monitoring elements and action levels for Cell 17A will be similar to those established in the Cell 16 plan. The Cell 17A plan, along with the design changes already mentioned, is intended to provide KPC with an early warning system for potential slope displacements or other indications of slope instability during Cell 17A filling operations.

The Cell 17A Monitoring Plan includes Figure 1-1, which shows the location of the planned and existing instrumentation, as well as the location for the photo-captures that are a component of the Monitoring Plan. The Cell 17A Monitoring Plan also presents a detailed description of the field monitoring procedures, the monitoring and reporting frequency, the procedures for data review and evaluation, the monitoring action levels and criteria for adjustments to the Filling Plan.

Attachment 2 of this letter presents the Filling Plan for Cell 17A. In general, the following items make up the primary components of the plan.

- Filling will proceed in horizontal lifts with respect to the long direction of the cell, across its full width.

- The operating waste surface will be graded such that water will not collect on the surface, but will instead, slope toward the outboard edge of the cell, allowing water to drain in that direction
- Upon the completion of each vertical lift of waste, a 12-inch sand drainage layer will be placed over the waste surface.
- To the extent possible, stronger and more permeable waste will be placed along the outer edge of the cell, and softer, low-strength waste will be placed as far inboard (near Cell 16) as possible.
- KPC should maintain flexibility in its filling operations because adjustments to the Filling Plan are possible based on Monitoring Plan action level criteria.

Attachment 3 presents the slope stability evaluation for Cell 17A. The stability evaluation supports the recommendations of the Monitoring and Filling Plans. The evaluation utilizes the cross-section geometry shown on Figure 2 as well as geometry of the underlying waste and foundation soil from previous analyses. The evaluation draws from existing slope stability monitoring results for Cell 16, in terms of the selection of shear strength and piezometric conditions expected for Cell 17A.

If you have any questions, comments, or suggestions do not hesitate to contact Matt Muzzy or me.

Sincerely,

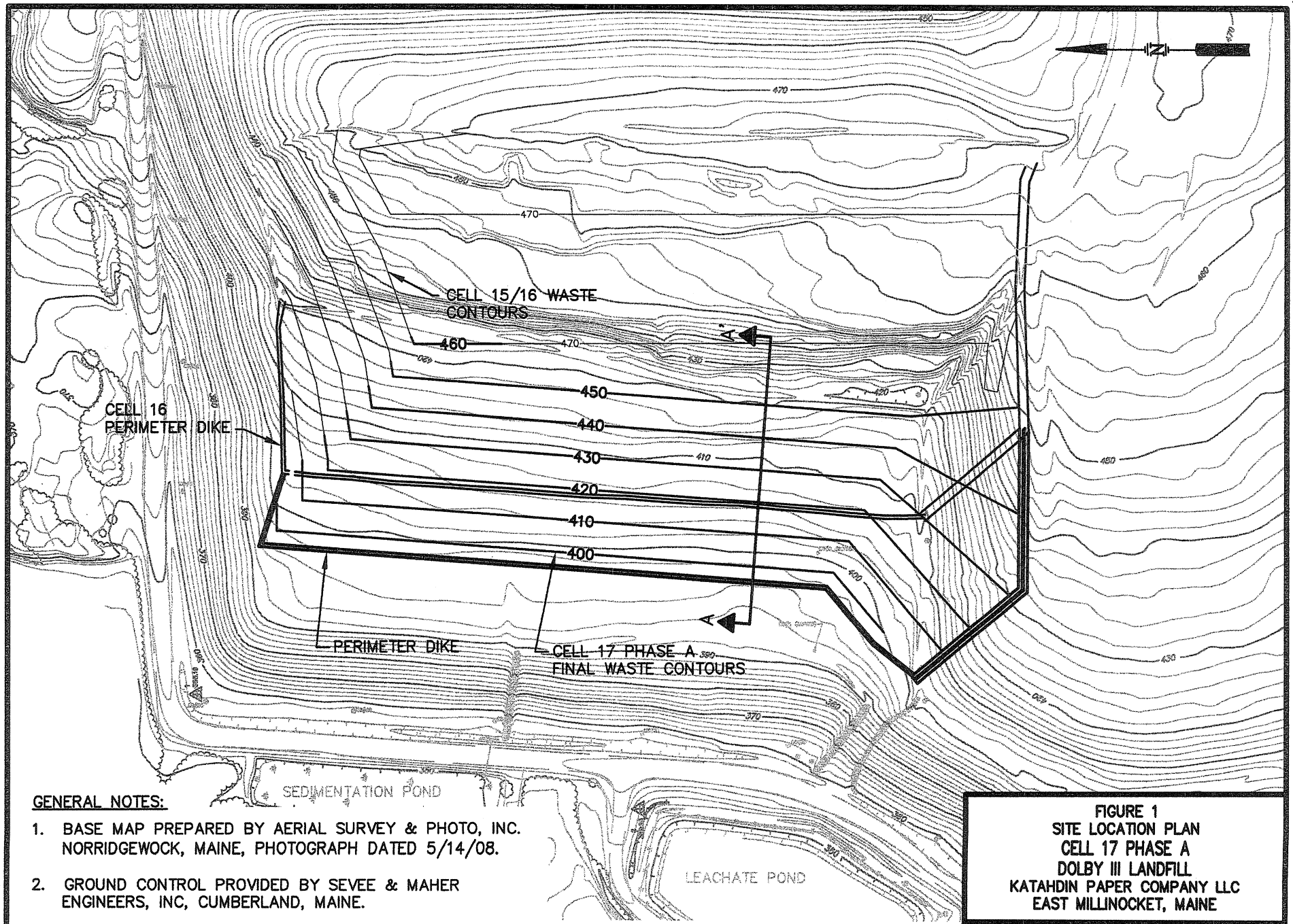
SEVEE & MAHER ENGINEERS, INC.

Mark S. Robinson
Geotechnical Engineer

Matthew W. Muzzy, P.E.
Senior Geotechnical Engineer

Attachments:
1. Cell 17A Monitoring Plan
2. Cell 17A Filling Plan
3. Cell 17A Stability Evaluation

cc. Lou Pizzuti (MEDEP)
Amanda Wade (MEDEP)
Matt Muzzy (SME)
Brian Johnson (SME)



GENERAL NOTES:

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO, INC. NORRIDGEWOCK, MAINE, PHOTOGRAPH DATED 5/14/08.
2. GROUND CONTROL PROVIDED BY SEVEE & MAHER ENGINEERS, INC, CUMBERLAND, MAINE.

A A' LOCATION OF STABILITY CROSS-SECTION.

100 0 200 FEET

DWG: CELL17A-SITE LMN: SITELOC CTB: SITELOC REV: 5/11/10

FIGURE 1
SITE LOCATION PLAN
CELL 17 PHASE A
DOLBY III LANDFILL
KATAHDIN PAPER COMPANY LLC
EAST MILLINOCKET, MAINE

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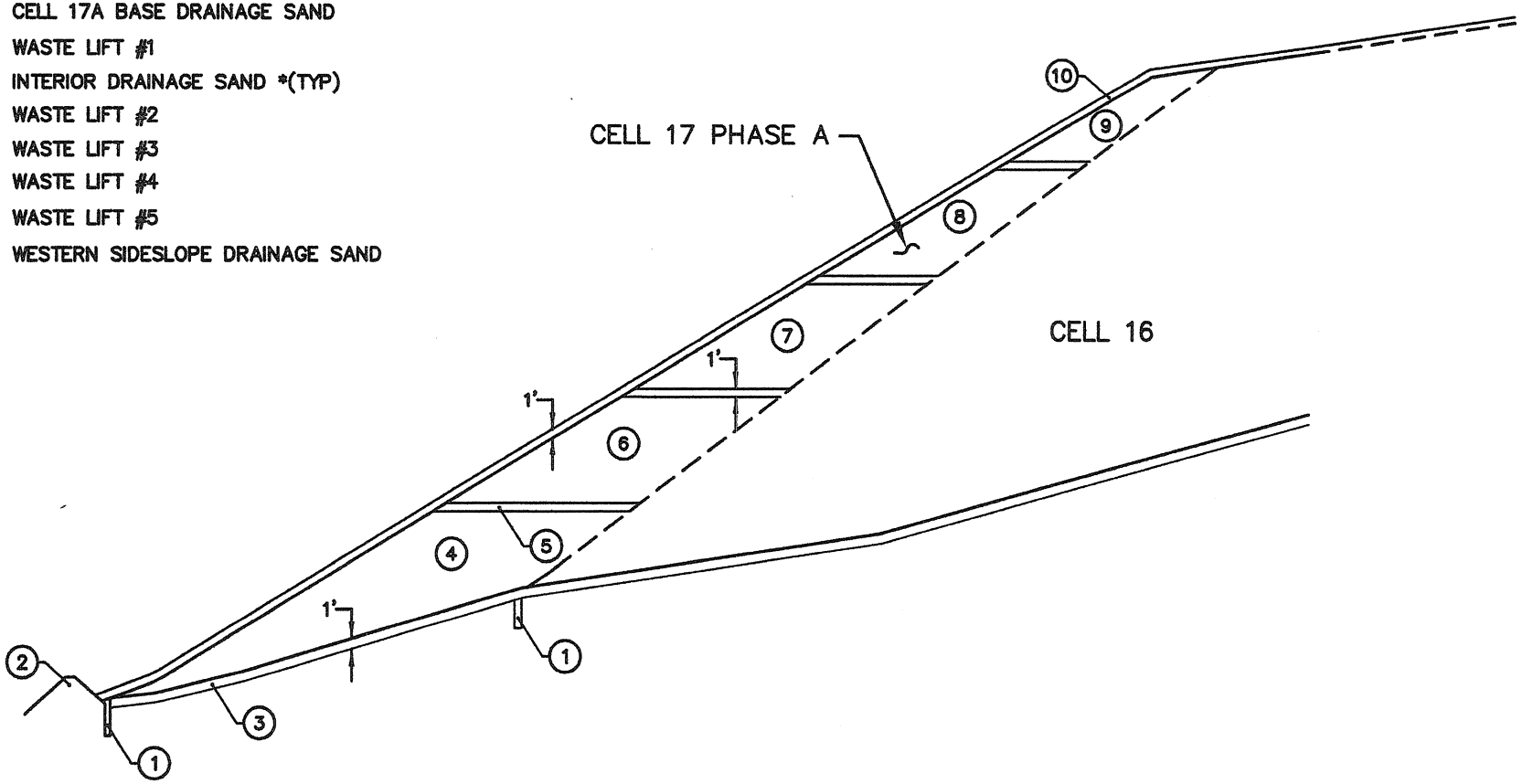
P:\Kpc\Dol\ACAD\CELL 17\Cell17A-Site.dwg, 5/14/2010 3:17:18 PM, mbiskup

1. TOE DRAIN
2. COMPACTED SOIL BERM
3. CELL 17A BASE DRAINAGE SAND
4. WASTE LIFT #1
5. INTERIOR DRAINAGE SAND *(TYP)
6. WASTE LIFT #2
7. WASTE LIFT #3
8. WASTE LIFT #4
9. WASTE LIFT #5
10. WESTERN SIDESLOPE DRAINAGE SAND



* INTERIOR DRAINAGE SAND TO EXTEND 50' INBOARD FROM THE EXTERIOR WASTE SLOPE

FIGURE 2
WASTE CROSS SECTION
CELL 17 PHASE A
DOLBY III LANDFILL
KATAHDIN PAPER COMPANY LLC
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DWG: CELL17A-SITE LMN: XSEC CTB: XSEC REV: 5/19/10

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ATTACHMENT 1

SLOPE STABILITY MONITORING PLAN
CELL 17A, DOLBY III LANDFILL

ATTACHMENT 1

SLOPE STABILITY MONITORING PLAN
CELL 17A, DOLBY III LANDFILL

Data Management

Since the implementation of the Cell 16 Monitoring Plan in November, 2008, Katahdin Paper Company (KPC) and Sevee and Maher Engineers (SME) have carried out the monitoring specified in that plan to track displacements and hydraulic conditions within the active filling areas which could potentially compromise the integrity of Dolby III. The Cell 17A Monitoring Plan (Plan) is an updated version of the Cell 16 Monitoring Plan. The monitoring elements that make up the Plan are presented in Table 1 and the monitoring locations are shown on Figure 1-1. KPC will collect pore-water pressure readings, piezometer measurements and observations in accordance with Table 1 and record them, attach digital photographs, and electronically transmit that data to SME within 24 hours. SME will enter data into a spreadsheet for data management; photographs will be analyzed to determine fill locations and approximate volumes; and observations will be added to a log; within 48 hours of receipt. Data will be made available to MEDEP, as described below in Reporting.

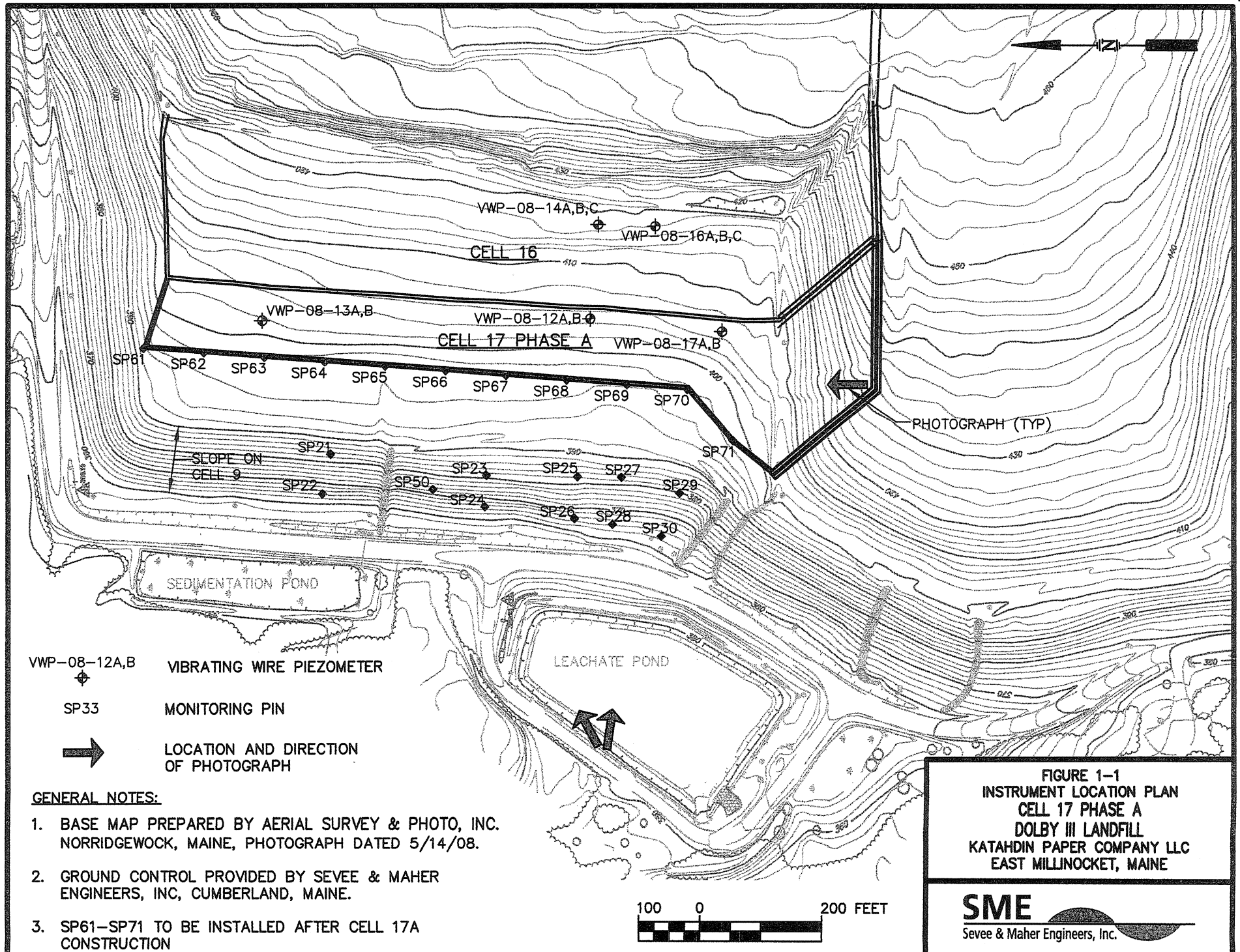
Action Levels

Action levels, (see Tables 2, 3, 4 and 5) as defined herein, are subject to modification based on observed conditions, as approved by MEDEP. Based on the conceptual model of the mechanisms which have caused historical displacements in Cells 15 and 16, standpipe and VWP pore pressure values, which reasonably produce a factor of safety of 1.0, have been established. Table 1 provides a tiered action level system, where varying degrees of importance are assigned to a broad range of possible data values. "Acceptable" data means no action levels have been reached. Action levels, actions, and reporting requirements are described later in this Plan for each type of data to be collected.

TABLE 1

ACTION LEVELS

Monitoring Elements	Normal Monitoring Frequency[1]	Action Levels	Action	Reported to MEDEP[1]
Standpipe Piezometer Readings	Monthly	Table 2 Low Moderate High	Confirm Increase Monitoring Action Determined by Data Evaluation	Quarterly Twice Per Month Within 48 hours
Vibrating-wire Piezometer Readings	Twice Per Month	Table 3 Low Moderate High	Confirm Increase Monitoring Action Determined by Data Evaluation	Quarterly Twice Per Month Within 48 hours
GPS Surveying	See Note 2	Table 4 Low Moderate High	Confirm Increase Monitoring Action Determined by Data Evaluation	Quarterly Twice Per Month Within 48 hours



GENERAL NOTES:

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO, INC. NORRIDGEWOCK, MAINE, PHOTOGRAPH DATED 5/14/08.
2. GROUND CONTROL PROVIDED BY SEVEE & MAHER ENGINEERS, INC, CUMBERLAND, MAINE.
3. SP61–SP71 TO BE INSTALLED AFTER CELL 17A CONSTRUCTION

DWG: CELL17A-SITE LMN: INST-LOC CTB: INST-LOC REV: 5/13/10

FIGURE 1–1
INSTRUMENT LOCATION PLAN
CELL 17 PHASE A
DOLBY III LANDFILL
KATAHDIN PAPER COMPANY LLC
EAST MILLINOCKET, MAINE

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TABLE 1 (cont'd)

Monitoring Elements	Normal Monitoring Frequency[1]	Action Levels	Action	Reported to MEDEP[1]
Photographs and Observation	Twice Per Month	Table 5 Low Moderate High	Adjust Filling Plan Action Determined by Data Evaluation Action Determined by Data Evaluation	Quarterly Twice Per Month Within 48 hours

Notes:
1. KPC anticipates a reduction in their waste disposal at the landfill. Cell 17A monitoring frequency may be reduced if waste disposal rates are reduced in the future. If a monitoring frequency reduction is warranted, the MEDEP will be notified as part of normal reporting.
2. Baseline GPS survey of the perimeter berm monitoring pins will be performed after their installation. GPS monitoring will resume after or near the completion of the first 10-foot lift.

Standpipe Piezometer Readings

The action levels in Table 2 represent field readings and also include action levels to be determined in the office through data evaluation. Consideration of precipitation shall be made.

TABLE 2

STANDPIPE PIEZOMETER ACTION LEVELS

	Low	Moderate	High
Field Readings:			
Depth to Water	Change of more than +/- 1.5 foot*	Change of more than+/- 3.0 foot*	--
Bottom Depth	Change of more than +/- 0.5 foot*	Change of more than +/- 1.0 foot* Probe gets stuck in casing or is difficult to withdraw	--
Office Data Evaluation:			
o Vertical Hydraulic Gradient	--	Chance of +/- 0.3 between nested pairs*	Chance of +/- 0.45 between nested pairs*
o Overall Value	--	greater than 50% of fill thickness above active cell base	greater than 100% of fill thickness above active cell base
o Data Trend	--	3 consecutive increases of 0.5 foot or more	3 consecutive increases of 1.0 feet or more

Note
* Change in value from previous reading.

Vibrating-Wire Piezometers

The action levels in Table 3 are based on VWP pressure readings that have been converted to feet of water, where one foot of water corresponds to a reading of 16 digits on the KPC vibrating-wire readout box. Consideration of precipitation shall be made, in addition to proximity of loading.

TABLE 3

VIBRATING-WIRE PIEZOMETER ACTION LEVELS

	Low	Moderate	High
Field Readings:			
When filling is within 100 feet of piezometer	Change of more than+/- 1.0 foot*	Change of more than+/- 3.0 feet*	--
When filling is beyond 100 feet of piezometer	Change of more than +/- 0.5 foot*	Change of more than+/- 1.0 foot*	--
Office Data Evaluation:			
When filling is within 100 feet of piezometer			
o Vertical Hydraulic Gradient	--	Change of +/- 0.3 between nested pairs*	Change of +/- 0.45 between nested pairs*
o Overall Value	--	Greater than 50% of fill thickness above active cell base	Greater than 100% of fill thickness above active cell base
o Data Trend	--	3 consecutive increases of 1.0 foot or more	3 consecutive increases of 2.0 feet or more
When filling is beyond 100 feet of piezometer			
o Vertical Hydraulic Gradient	--	Change of +/- 0.1 between nested pairs*	Change of +/- 0.15 between nested pairs*
o Overall Value	--	Greater than 50% of fill thickness above active cell base	Greater than 100% of fill thickness above active cell base
o Data Trend	--	3 consecutive increases of 0.5 foot or more	3 consecutive increases of 1.0 foot or more

Notes:
* Change in value from previous reading.

GPS Surveying

Based on historic measurement of horizontal and vertical displacements of the Cells 15 and 16 wastes and settling of the wastes in Cells 9 and 10, SME has established surveying action levels as presented in Table 4. Because the landfill is composed of highly compressible materials, it is expected that filling will cause some movement at distance from active filling areas. The GPS surveying is meant to detect those displacements should they occur.

TABLE 4

GPS SURVEYING ACTION LEVELS

	Cell 9 Sideslope Displacement Monitoring Pins[1]	Perimeter Berm Displacement Monitoring Pins[1]
Low	Horizontal greater than 0.1 foot Vertical greater than 0.05 feet	Horizontal greater than 0.25 foot Vertical greater than 0.1 feet
Moderate	Horizontal greater than 0.5 feet Vertical greater than 0.25 feet	Horizontal greater than 0.5 feet Vertical greater than 0.25 feet
High	Horizontal greater than 1.0 foot Vertical greater than 0.5 feet	Horizontal greater than 1.0 foot Vertical greater than 0.5 feet

Note:
1. If the monitoring frequency is reduced due to a reduction in waste disposal at the Landfill, adjustments to the action levels may be warranted. If action levels change, the MEDEP will be notified as part of the normal reporting.

Photographs and Landfill Observations

During Standpipe Piezometer Readings, observations will be made for things such as slope movement, excessive strain and gas or leachate seeps. In addition to the observations, photographs will be taken from set locations. The Action Levels listed in Table 5 are for the landfill observations.

TABLE 5

LANDFILL OBSERVATION ACTION LEVELS

	Low	Moderate	High
Surface Cracking	Greater than 1 inch	Greater than 3 inches	Greater than 6 inches
Leachate Seeps	Wet area, no recent precipitation	Flowing water, no recent precipitation	Flowing water, transporting solids, no recent precipitation
Gas Seeps	Bubbling, local loss of vegetation	Hissing, vegetative stress greater than 10 ft^2	Strong odor, vegetative stress greater than 10 ft^2
Standpipe Movement	Leaning over of casing or risers	Noticeable change in height relative to ground surface	Change in relative height of nested pairs
Surface Heaving	At a distance the surface of Cell 17A, or the surface of Cell 9 looks elevated	Change in surface water flow direction, berm shifting or can see different views from the same location	The ditch west of Cell 9 is narrower, the surface of Cells 17A or 9 is visibly higher
Flow in Cells 16,17A, and 9 Manholes		Precipitation or snow melt does not cause an increase in flow	Flow stops, when otherwise expected to continue
(other)			

Adjustments to Filling Plan

The Filling Plan may be modified based on data evaluation using the following general guidelines.

- Low: Areas become filled; or weather required changes to fill placement are necessary.
- Moderate: Surface seeps (pumping) along truck routes develop and are continued; or a Moderate Action Level is met.
- High: A High Action Level is met.
- Flexibility to these criteria is important, in that anticipating conditions are difficult; consequently, these are considered guidelines.

Actions

Actions will be based on data comparisons to specific action levels as identified in Table 1 and described below:

- Confirm: Confirm data collection of questionable data by repeating measurement, to verify accuracy.
- Increase Monitoring: Increase weekly monitoring to twice weekly, or monthly to twice monthly. Resume original frequency after two data sets show acceptable data or low action levels.
- Evaluate: If "high" action level is reached, action will be determined by data review.
- Modify Filling Plan: Modifications will be made by SME and conveyed to KPC within one week of the action level being confirmed and MEDEP will be notified.
- Immediate Change to Plan: Modifications will be made by SME and conveyed to KPC within 48 hours of the action level being confirmed and MEDEP will be notified.

Reporting to MEDEP (of action level exceedances):

KPC will report all exceeded action levels to MEDEP (Lou Pizzuti, Amanda Wade or a designee) as indicated in Table 1 and described below:

- Quarterly: A letter report will be sent to MEDEP that provides, reviewed data, and an updated filling Plan, if applicable.
- Twice Per Month: Email will be sent to MEDEP providing a brief summary of data and action level status.
- Within 48 hours: MEDEP will be notified by phone.
- Reporting frequency may be adjusted, as approved by MEDEP.

Data Evaluation

Data will be reviewed by SME within 24 hours when a moderate or high action level is identified through review of field data; otherwise, data will be reviewed within 72 hours of receipt.

Reporting

SME will maintain data, evaluate action levels, and perform data evaluations on a twice-per-month basis. Quarterly data reports will be generated by SME, reviewed by KPC, and provided to MEDEP. Should data necessitate more immediate notification of the MEDEP (a "Moderate" action level as indicated in Table 1), or if conditions change from those assumed, MEDEP will be notified as soon as possible.

Adjustments in filling sequence, location, and methodology will be made as necessary in accordance with both the requirements of this plan and engineering judgment, as approved by MEDEP.

ATTACHMENT 2

CELL 17A FILLING PLAN
DOLBY III LANDFILL

ATTACHMENT 2

CELL 17A FILLING PLAN
DOLBY III LANDFILL

Cell 17A Filling Plan

It is recognized that Cell 17A will be smaller than previous cells in the Dolby III Landfill. The smaller cell size is supported by KPC's significant reduction in daily waste volume. Nonetheless, it will be important to construct the cell in an organized and well thought manner, so as to provide necessary waste drainage (for stability), while also making provisions for operation obstacles such as wet-weather and snow management.

The following bulleted items are meant to serve as guidance for the placement of waste in Cell 17A. By implementing this guidance and constructing Cell 17A as designed, it is anticipated that KPC can maintain a stable waste mass during filling operations.

- The Cell 17A exterior waste slopes should not exceed 5H:1V.
- Waste placement in Cell 17A should proceed in horizontal lifts with respect to the long direction of the cell across its full width. To the extent practical, each waste-lift should be limited to 10 feet in thickness.
- The operating waste surface should be sloped such that water will not collect on the surface, but will instead, drain toward the outboard edge of the cell. Surface grades in the range of 3 to 5 percent are expected to be adequate; however, slopes up to 10 percent can be used to promote drainage.
- A 12-inch sand drainage layer should be placed over the waste surface between each lift. The sand drainage layer should extend from the western (and northern) waste sideslope to at least 50 feet into the cell (away from the sideslope). Where the cell width is less than 50 feet, the sand should be placed over the entire width of the Cell. In addition, for each 10-foot waste lift, a 12-inch sand drainage layer should be placed over the Cell's western waste sideslope to convey expressed leachate and slope drainage to the toe drain located along the outer perimeter of Cell 17A. The sand drainage layers between each waste lift will need to be integrated into the sand drainage layer on the western sideslope to provide flow continuity. This vertical waste/drainage sequence is shown on Figure 2.
- To help prepare for inclement weather/snow, the drainage sand layers can be covered with 1 to 2 feet of waste to protect them until the waste lift can be applied. If interim waste is placed over the sand, care should be taken to keep the inboard edge uncovered to allow infiltration and passage of surface drainage.
- To maintain filling operations during periods of bad weather, KPC may consider employing an on-going stair-step lift sequence in accessible areas. This approach could be used rather than advancing one horizontal waste lift across the length of the cell. If such an approach is used, the temporary, in-cell, operational sideslopes should not be inclined at angles steeper than 4H to 1V.

- To the extent possible, stronger and more permeable waste should be placed along the outer edge of the cell, and softer, low-strength waste should be placed as far inboard (near Cell 16) as possible.

- KPC should maintain flexibility in its filling operations and the location of waste placement to accommodate wet-weather and winter conditions. Adjustments to the Filling Plan are possible based on the action level criteria contained in the Cell 17A Monitoring Plan (Attachment 1). Factors such as weather, waste placement rates and waste characteristics may also warrant adjusting filling operations within the cell.

ATTACHMENT 3

CELL 17A SLOPE STABILITY EVALUATION
DOLBY III LANDFILL

ATTACHMENT 3

CELL 17A SLOPE STABILITY EVALUATION
DOLBY III LANDFILL

1.0 INTRODUCTION

A Slope Stability evaluation was performed for Cell 17A and the underlying waste. The purpose of the evaluation was to gain an understanding of the conditions that would likely cause instability of the waste mass, and by doing so, provide KPC with a means to avoid its occurrence. The geotechnical properties of the wastes have been characterized through previous investigations and presented in the Stability Evaluation of Cells 15 and 16 (Memorandum from SME to KPC, dated July 25, 2008). For the purpose of this stability evaluation, the geotechnical properties which were used in the previous evaluation, have been used again herein. Based on the previous evaluation, the pore-pressures within the waste will have the greatest impact on the stability of Cells 9 and17A and therefore, are the focus of this evaluation. By understanding the pore-pressure conditions that are likely to cause failure, appropriate action levels are established in the Cell 17A Monitoring Plan (See Attachment 1) that can be applied to the results of instrumentation monitoring to provide early warning of potential forthcoming slope instabilities.

2.0 STABILITY INPUT PARAMETERS

The geotechnical properties selected for use in this evaluation were based on the most recent characterization of the Dolby III waste deposit. The geotechnical properties selected for use in the stability evaluation are as follows:

2.1 Historical Waste

For the geotechnical properties of the waste contained in Cells 9, 10, and 11, a Mohr-Coulomb strength envelope represented by a cohesion of 600 and an effective friction angle of 27.5 degrees was selected for use in the stability evaluation. Pore-water pressure increase in Cells 9, 10, and 11, due to load application in Cell 17A, and prior to consolidation/strength gain, will affect waste strength during operations. A waste density of 75 pounds per cubic foot (pcf) was applied to the waste.

2.2 Fresh Waste

Since Cells 17A and 16, for the purpose of this evaluation, are new unconsolidated deposits, we have assumed that they have not begun to realize appreciable strength gain. An effective stress internal friction angle of 27.5 degrees with no cohesion was selected for the fresh waste in the stability analysis. This is in the lower range of test results completed within Cells 9 and 10 in 2008. By not including cohesion, which is likely present, evaluation results are considered conservative. A waste density of 75 pounds per cubic foot (pcf) was applied to the waste.

2.3 Native Till

The foundation soil below Dolby III consists of native glacial till. For this evaluation, this soil was assumed to be free of excess pore water pressure. The Native till is assigned a Mohr-Coulomb strength envelope represented by an effective friction angle of 36 degrees and a density of 135 pcf.

2.4 Compacted Soil Berm

To provide containment for the Cell 17A wastes, a compacted soil berm has been incorporated in the design. An effective strength friction angle of 32 degrees and a density of approximately 125 pcf was selected for the compacted soil berm for use in the stability evaluation.

2.5 Drainage Sand

To drain the base of each 10-foot waste layer in Cell 17A, a twelve-inch thick layer of drainage sand will be placed at the base of each waste lift. This drainage sand will extend from the exterior sideslope at least 50 feet into waste and will consist of a material having an effective strength friction angle of at least 32 degrees. To drain the western sideslope of the Cell 17A waste, a 12-inch layer of drainage sand will be placed on the western sideslope of Cell 17A. The drainage sand should be well-drained and have a fines content of five percent or less.

2.6 Pore-water Conditions

Pore-water conditions will have perhaps the greatest potential impact on the stability of Cells 9 and 17A. Cell 9 has experienced previous surface sloughing as a result of insufficient drainage, which has been mitigated through installation of subsurface drainage features. Also, Cell 15 filling has produced instability of the underlying waste (Cells 11 and 12), in-part, as result of excess pore-water pressure. KPC has monitored pore-water conditions during the filling of Cell 16, and SME has used information generated through that monitoring to predict pore-water pressure conditions that could occur during the filling of Cell 17A. These pore-water pressures were modeled for the operational period of Cell 17A in the computer program SLOPE/W for the following conditions:

- **Drained Conditions**: All materials were assumed to be present at their wet total density with no potentiometric surface or excess pore pressure. This condition is unlikely during operations.

- **Saturated Conditions**: A potentiometric surface, representative of a saturated waste mass, was applied to the Cells 9 and 17A wastes. No drainage was included at the base of Cells 9 and 17A in the analysis; however, sideslope drains and a toe drain were included. Refer to Section 3.0 for additional details of the values used for this condition in the stability evaluation. This condition is also unlikely because it assumes there is no drainage from the sand drainage layers within Cell 17A and at the base of Cells 16 and 17A.

- **Maximum Pore-Water Pressure**: To establish appropriate Action levels for the Cell 17A Monitoring Plan (Attachment 1), analysis was performed to find the pore-water conditions that resulted in a regulatory minimum factor of safety of 1.3. Pore-water conditions were modeled in the stability analysis based on a

ratio of pore-water pressure to Cell 17A waste thickness. Pore pressures were applied to the Cell 9 wastes and calculations generally demonstrated that pore pressure increases equivalent to one foot of water for every foot of waste (1:1 ratio), resulted in a factor of safety of approximately 1.3. The pore pressure ratios are presented in Attachment 3-1.

3.0 CELL 17A STABILITY ANALYSIS RESULTS

Experience has shown that the waste placed in Dolby III absorbs excess water from precipitation, produces excess pore-water pressure in underlying waste cells, and releases excess water as it decomposes. Excess water can cause a stable slope to become unstable. Measurements of the exterior sideslope of Cell 15 indicate that the waste had an angle of repose (i.e., a factor of safety of 1.0) of approximately 17 degrees, where seepage exists. The waste also has been shown to stand at an angle of approximately 1.75H:1V (approximately 30 degrees) where no excess water exists (i.e., seepage is controlled). To produce a factor of safety during the operational period of 1.3, with the waste in an undrained saturated state with seepage, the waste slope angle would need to be limited to no steeper than 4.5H:1V, see Attachment 3-2. To provide a stable western sideslope for Cell 17A, a system of drainage and a slope angle of 5H:1V was developed (See discussion in main body of this letter). The sand drainage layers are intended to minimize saturation of the waste, and thereby maintain factors of safety greater than 1.3. Attachment 3-3 provides the slope stability analysis performed to determine the factors of safety. Figure 2 presents a cross-section illustrating the conceptual construction sequence.

SLOPE/W was utilized to evaluate the Cell 17A stability, taking into account the pore-water conditions outlined in Section 1.6. The results are summarized in Table 1.

TABLE 1

STAGE 1 STABILITY EVALUATION SUMMARY

Pore-water Condition	Analysis Name	Slip Surface Shape	Factor of Safety	Slip Surface Location
Drained	Cell 17A – Drained	Circular	2.6	Toe of Cell 17A
Saturated	Cell 17A – Saturated	Circular	1.0	Middle of Cell 17A Side Slope
Maximum Pore-Water	Cell 17A – Max PP	Circular	1.4	Toe of Cell 17A

- **Drained Waste**: Using no pore-water in the analysis named *Cell 17A – Drained*, a factor of safety of 2.6 was determined for a shallow circular surface that passes through the toe of Cell 17A.
- **Saturated Condition**: Using a phreatic surface along the surface of the waste (no seepage) in the analysis named *Cell 17A – Saturated*, a factor of safety of 1.0 was determined for a deep circular surface, through the middle of the Cell 17A side slope. Since drainage exists below Cell 9 and drainage is an integral part of the Cell 17A design, this condition is not expected; however, it has been evaluated to provide an indication of the importance of functioning drainage in Cells 9 and 17A.
- **Maximum Pore-Water**: Using pore-water pressures, as determined in Attachment 3-1 in the analysis named *Cell 17A - Max PP* a factor of safety of 1.4 was determined for a deep circular surface, through the toe of Cell 17A.

4.0 CONCLUSIONS

The evaluation of operational stability of Cell 17A indicates the following:

- Anticipated pore-water pressure conditions resulting from Cell 17A fill placement are expected to result in an acceptable factor of safety and therefore limit waste displacements on the Cell 17A western side slopes.
- Monitoring is crucial to Cell 17A performance for prediction of stability and timely implementation of modifications to the Filling Plan (see Attachment 2) are essential to minimize conditions that could result in excessive displacements.
- The location and type of movement observed during monitoring may be indicative of the condition causing that movement, and should be considered when modifying the Filling Plan or implementing corrective measures. A qualified geotechnical engineer should be involved in the implementation of the Cell 17A Slope Stability Monitoring Plan.
- VW-08-12A and B became inoperable in December 2009. In order to effectively monitor pore-pressures in the wastes underlying Cell 17A, these two piezometers should be replaced.
- Once construction of Cell 17A starts, Displacement Monitoring Pins along the Cell 16 perimeter berm will be removed. In order to effectively monitor displacements along the western perimeter of Cell 17A, ten Displacement Monitoring Pins should be installed along the western perimeter berm.
- KPC anticipates a reduction in their waste disposal at the landfill. Cell 17A monitoring frequency may be reduced if to reflect the reduced waste disposal rates in the future. If a monitoring frequency reduction is warranted, the MEDEP will be notified as part of normal reporting.

APPENDIX G

ENVIRONMENTAL MONITORING PLAN

APPENDIX E

UNDER SEPARATE COVER

APPENDIX H

DOLBY III OPTIMIZATION AND CLOSURE PLAN

DOLBY III LANDFILL OPTIMIZATION & CLOSURE PLAN

DOLBY III LANDFILL
EAST MILLINOCKET, MAINE

KATAHDIN PAPER COMPANY, LLC
EAST MILLINOCKET, MAINE

FEBRUARY 2010

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DOLBY III LANDFILL OPTIMIZATION AND CLOSURE PLAN
DOLBY III LANDFILL
KATAHDIN PAPER COMPANY LLC
EAST MILLINOCKET, MAINE

1.0 INTRODUCTION

This document comprises Katahdin Paper Company LLC's (KPC's) phased development (cell optimization) and closure plan for the optimization of the Dolby III Landfill Facility located in East Millinocket, Maine. The plan has been prepared following the July 29, 2009 meeting between KPC, Sevee & Maher Engineers, Inc. (SME), and the Maine Department of Environmental Protection (MEDEP). During that meeting, it was agreed that after Cell 17, KPC could continue to operate the Dolby III Landfill to take advantage of additional waste capacity above prior-filled cells, up to the permitted peak elevation for the landfill.

This plan describes the sequence and methods for progressively opening, operating, and closing the Dolby III Landfill so that waste placement can be achieved to the permitted final waste elevation to optimize remaining capacity. Review of historic permit records for Dolby III has identified the interpreted final elevation for top of waste in the Dolby III Landfill to be at elevation 476 ft. Included in this plan are the operational landfilling and grading details, schedule, and the phased intermediate and final cover system design proposed for closing the Dolby III Landfill in accordance with the MEDEP Solid Waste Management Rules, Chapter 401 – Section 5. This plan has been prepared to focus specifically on phased development and closure above the existing waste cells (Cells 1 through 16) of the Dolby III Landfill and is expected for implementation beginning in year 2010.

KPC is actively pursuing management alternatives for its waste generated on a mill-wide basis. The following changes have been implemented or are expected, for KPC's handling and disposal methods:

- Beginning in 2009, KPC started burning a portion of the sludge generated at the East Millinocket Recycled Paper Fiber Plant. KPC expects to implement additional sludge-burning capacity during 2010.

- KPC has made operational changes in the East Millinocket Mill's paper room that have reduced the amount of unused fiber going to the sewer and then to the treatment plant, in turn generating less sludge.
- KPC is investigating disposal options that would reduce the quantity of waste hauled and landfilled at the Dolby III facility.

The above changes to KPC's handling and disposal methods are expected to slow the air-space consumption rate at the Dolby III Landfill, which is currently estimated at 200,000 cubic yards per year, Accordingly, KPC expects to revise or amend this plan as needed to account for changes in waste filling rates and other operational/closure activities.

1.1 Background

The Dolby III Landfill is KPC's current active landfill, occupying about 73 acres to the west and downgradient of the Dolby II Landfill. Dolby III has been operated in stages consisting of 17 waste cells, each having approximately one year of disposal capacity. Cells 1 through 8, located on the southern half of Dolby III, have been developed to design waste grades and were closed during the 1990's with an intermediate cover system consisting of a vegetated 24-inch compacted till barrier layer (greater than 15 percent fines) above a 12-inch drainage sand layer. Cells 9 through 14, located on the northern half of Dolby III, have been developed to design waste grades, with those inactive areas having been closed with an intermediate cover consisting of a vegetated 24-inch barrier layer mixture of primary sludge and till above a 12-inch drainage sand layer. Cells 15 and 16 are the current open and active waste filling areas; these cells are located directly above Cells 10, 11, and 12. Cell 17, the final cell of Dolby III, is expected to be constructed and operated beginning late spring / early summer of 2010.

2.0 DOLBY III LANDFILL CELL OPTIMIZATION AND CLOSURE PLAN

The cell optimization plan for the Dolby III Landfill allows KPC to optimize the use of airspace up to the permitted final waste elevation of 476 feet and includes filling in those areas of the landfill that have settled over the years above Cells 1 through 8, while also maximizing use of available remaining space within Cells 14, 15, 16, and 17. The cell optimization and closure will consist of four development phases, six intermediate closure phases, and five final closure phases. With the exception of Phase I, each proposed development phase is designed to correspond with a closure phase at the landfill. Phase I of this Plan incorporates the current landfill operations in Cells 15 and 16, which will continue to the revised optimization grades detailed in this Plan. Phase II will implement the start of the 2010 development (Cell 17) and closure (Cells 15 and 16).

The primary design considerations and parameters associated with the proposed Dolby III Cell Optimization Plan include the following:

- Utilize gradients of the existing site, where possible, to layout each phase of development limit and the leachate collection and transport system flow directions for that phase;
- Utilize access points and roads of the existing site, where possible;
- Provide one year or greater of capacity for each phase of development;
- Provide all required temporary and permanent erosion control measures prior to development of each phase;
- Provide positive drainage and control of clean surface water generated from outside the limits of each phase;
- Provide positive drainage and control of impacted surface water / leachate from inside the limits of each phase;
- Develop to a maximum waste peak elevation of equal to or less than the permitted final waste elevation of 476 feet;
- Develop to a maximum final waste slope equal to or less than 4 horizontal to 1 vertical (4H:1V) to minimize slope stability concerns;

- Develop to a minimum final waste slope equal to or greater than 5% or 20H:1V to maintain positive surface water drainage; and
- Develop each phase within an operating (open) area that limits leachate generation / impacted surface water runoff to volumes consistent with the capacity of the existing leachate pond.

Section 2.1 of this Plan describes each phase of proposed development, or cell optimization at the Dolby III Landfill.

The closure of the Dolby III Landfill will consist of 12 consecutive, annual closure phases, with each closure phase being an intermediate or final closure. The proposed intermediate and final cover systems for the closure are designed to:

- Minimize infiltration into the landfill after closure;
- Operate with a minimum of maintenance;
- Promote drainage from its surface while minimizing erosion;
- Provide protection against freeze and thaw effects; and
- Accommodate settling and subsidence to minimize the potential for disruption of continuity and function.

Sections 2.2 and 2.3 of this Plan describe each phase of the proposed intermediate closure and final closure at the Dolby III Landfill, respectively.

Prior to each phase of cell optimization development and closure, KPC will submit for MEDEP's review and approval, detailed engineering plans and specifications and applicable supporting information for the design and construction (e.g., stormwater and erosion control management, construction QA/QC, geotechnical stability management, etc.), in accordance with Chapter 400, Section 401 of the Rules. Figures are included within this plan that identify the keys features of each phase development area, such as: limits and capacity of each operating phase, access routes for operation, surface water drainage, leachate collection, finish waste grades, and closed areas with intermediate and final cover.

The schedule for cell optimization and closure of the Dolby III Landfill has been developed to follow the current landfill air-space consumption rate of 200,000 cubic yards per year, and is presented as a Gantt chart in Attachment A. As indicated on Section 1.0 - Introduction, changes to KPC's handling and disposal methods are expected to slow the air-space consumption rate at the Dolby III Landfill. Accordingly, the attached Gantt chart is an example that KPC expects to revise or amend as needed to account for changes in waste filling rates and other operational/closure activities.

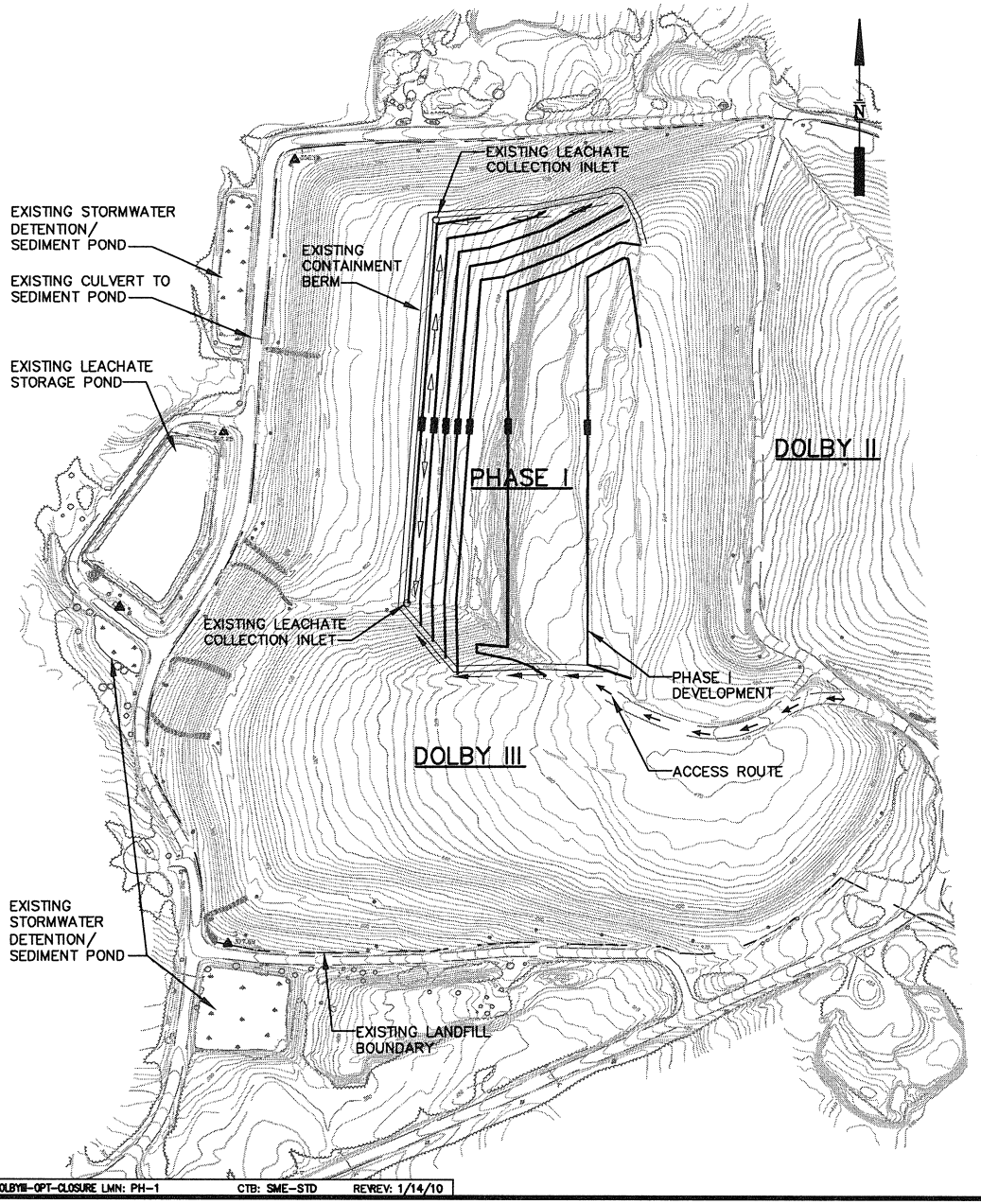
2.1 Cell Optimization Phases

Phase I Development. Phase I will occur during the first half of year 2010, and consists of placing waste fills between 5 to 8 feet thick above the currently active landfill areas of Cells 15 and 16. This development area measures approximately 14.4 acres, with a waste volume capacity of approximately 50,000 cubic yards beyond the original design grades for that area. Phase I will be filled to a peak waste elevation of 476 feet. Figure 1 shows the details and final waste grades of Phase I.

Because the fill placement for Phase I will occur within the active landfill areas of Cells 15 and 16, use of current infrastructure (access points, leachate collection, etc) will remain unchanged and no additional cell development will be necessary for Phase I operations.

Phase II Development. Cell 17 (Phase II) has been designed to develop approximately 11 acres on the northwest side of Dolby III, atop Cells 9 and 10 and the west side of Cell 16. Phase II of the cell optimization will be built during the year 2010 construction season. This development area has a waste volume capacity of approximately 295,000 cubic yards. Phase II will be filled to a peak waste elevation of 460 feet. Figure 2 shows the details and final waste grades of Phase II development.

Construction to prepare the Phase II area will consist of removing existing intermediate cover soil from the top of Cells 9 and 10, construction of a perimeter waste containment berm, and installation of the base leachate collection sand drainage layer, piping, and leachate collection catch basin(s).



DWG: DOLBYIII-OPT-CLOSURE LMN: PH-1 CTB: SME-STD REVREV: 1/14/10

150 0 300 FEET

NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTOS INC., NORRIDGEWOCK, MAINE. PHOTO DATE 5/14/2008.

2. PROPOSED GRADES SHOWN REPRESENT TOP OF WASTE GRADES PRIOR TO COVER.

3. PHASE I DEVELOPMENT ABOVE CELLS 15 & 16.

LEGEND

CLEAN WATER FLOW

LEACHATE FLOW

PHASE I: (SEE NOTE 3)

CELL WASTE CAPACITY	= 150,000 CY
OPEN AREA	= 14.4 AC
COVER AREA	= N/A AC

FIGURE 1
PHASE I
DOLBY III OPTIMIZATION & CLOSURE PLAN
DOLBY III LANDFILL
KATAHDIN PAPER COMPANY, LLC
EAST MILLINOCKET, MAINE

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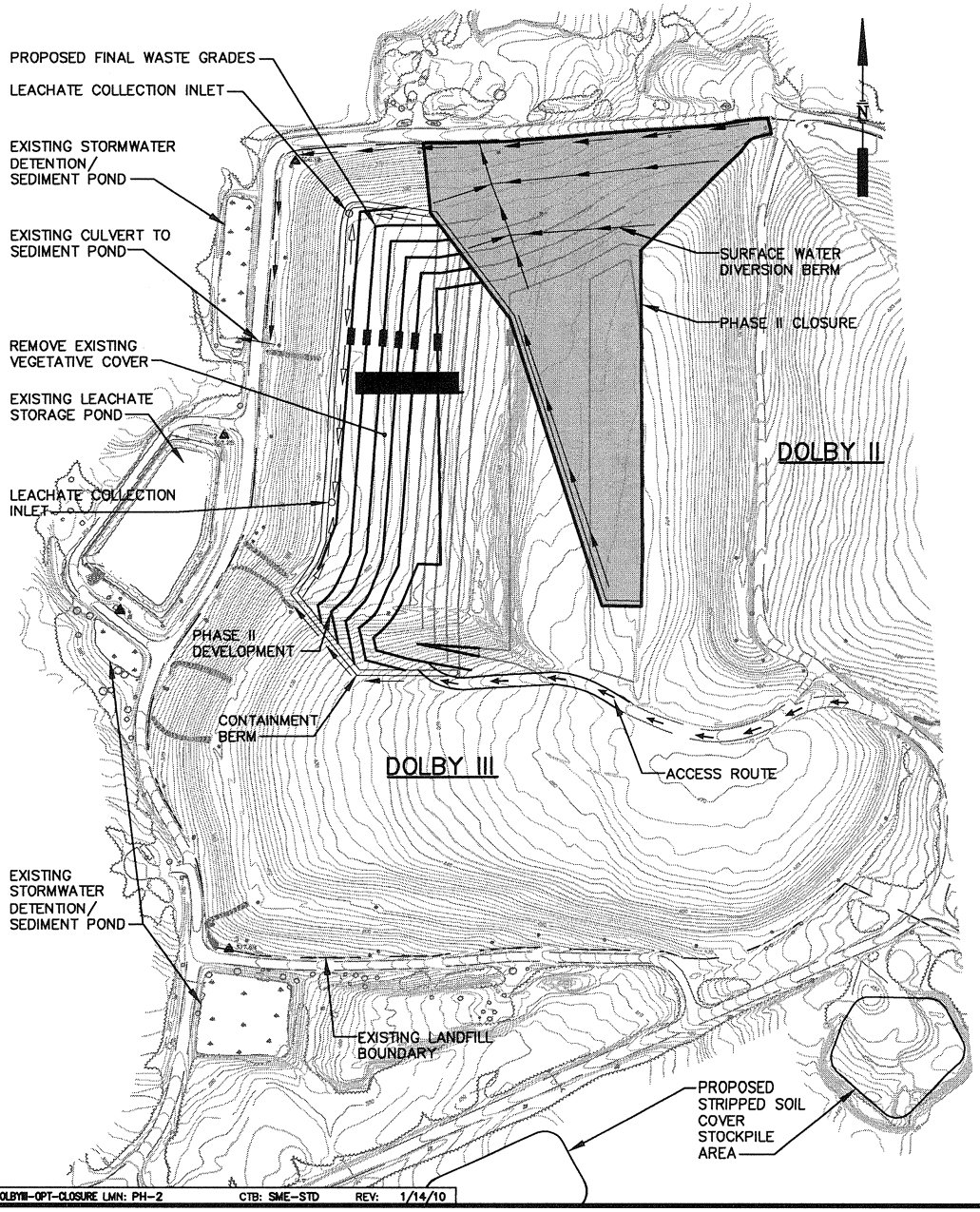
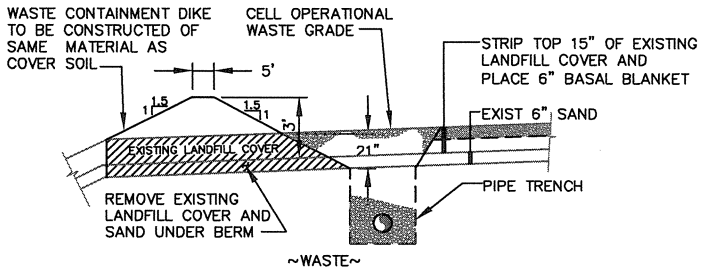
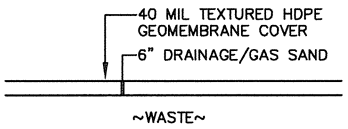
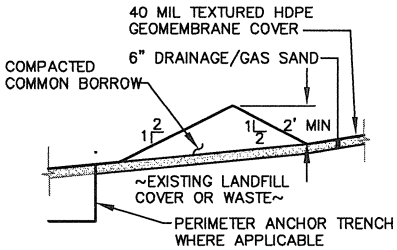




CONTAINMENT BERM
NTS



INTERMEDIATE COVER
NTS



SURFACE WATER DIVERSION BERM
NTS

NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTOS INC., NORRIDGEWOCK, MAINE. PHOTO DATE 5/14/2008.

2. PROPOSED GRADES SHOWN REPRESENT TOP OF WASTE GRADES PRIOR TO COVER.

3. CELL WASTE CAPACITY INCLUDES PRECEDING REMOVAL OF 2' EXISTING VEGATATIVE COVER.

4. PHASE II DEVELOPMENT ON CELL 17, PHASE II CLOSURE ON NORTH SIDE OF CELLS 9 THROUGH 16.

LEGEND

PROPOSED INTERMEDIATE COVER

CLEAN WATER FLOW

LEACHATE FLOW

150 0 300 FEET

PHASE II (SEE NOTE 4):

CELL WASTE CAPACITY	= 295,000 CY
OPEN AREA	= 14.3 AC
COVER AREA	= 9.7 AC

FIGURE 2
PHASE II
DOLBY III OPTIMIZATION & CLOSURE PLAN
DOLBY III LANDFILL
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Phase III Development. Phase III is expected during the year 2011 to 2012 construction season and includes the development of the southwestern side of Dolby III, above Cells 7 and 8. This development area measures approximately 10.5 acres, with a waste volume capacity of approximately 265,000 cubic yards.

Figure 3 shows the details and final waste grades of Phase III development.

Construction to prepare the Phase III area will consist of removing existing cover soil from the top of Cells 7 and 8 for on-site stockpiling and re-use in final cover construction (see Section 2.3), construction of a perimeter waste containment berm, and installation of the base leachate collection sand drainage layer, piping, and leachate collection catch basin(s).

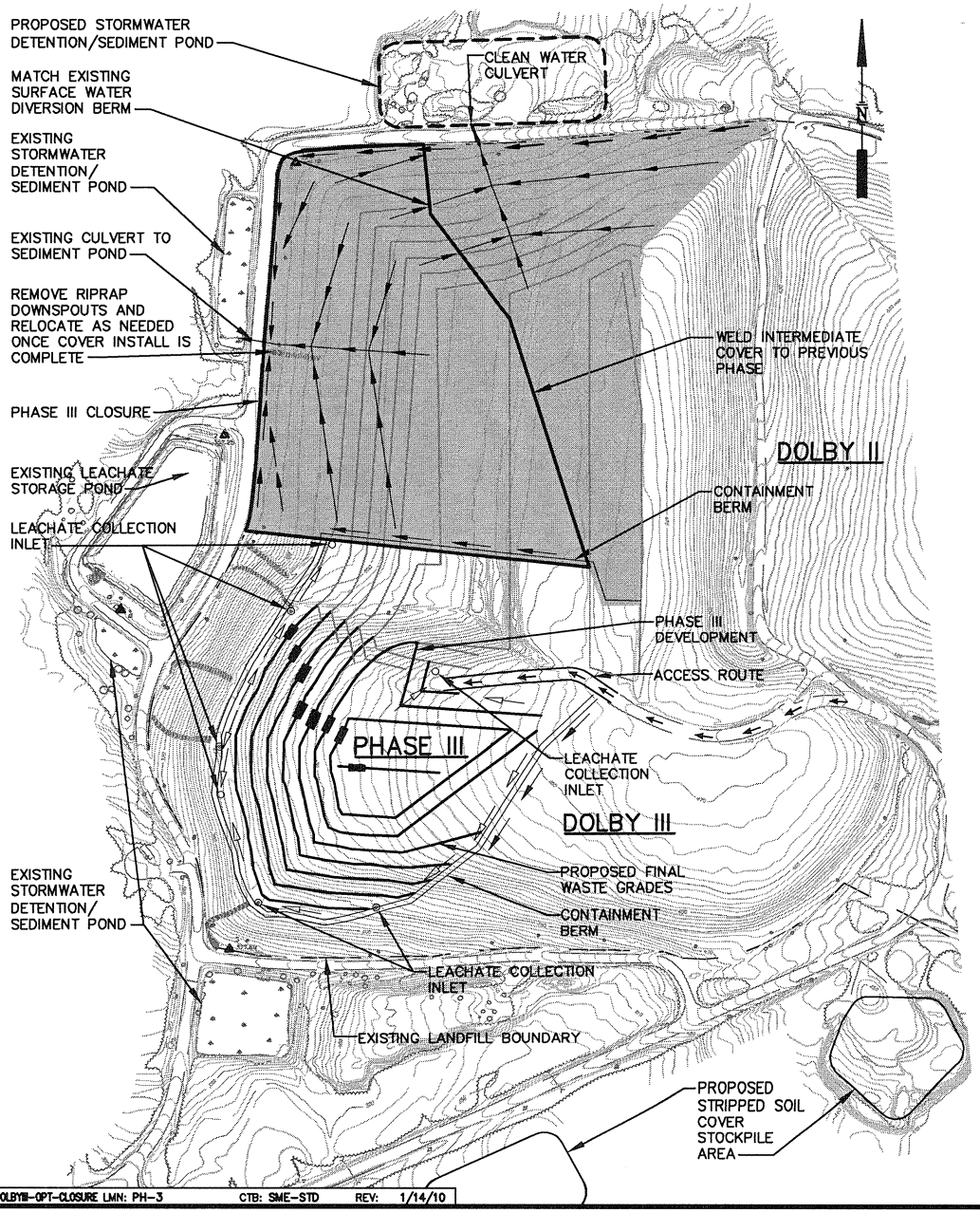
Phase IV Development. Phase IV is expected during the year 2012 to 2013 construction season and utilizes the space above the southeastern side of Dolby III, atop existing Cells 6 and 7. This development area measures approximately 11.2 acres, with a waste volume capacity of approximately 164,000 cubic yards. Figure 4 shows the details and final waste grades of Phase IV development.

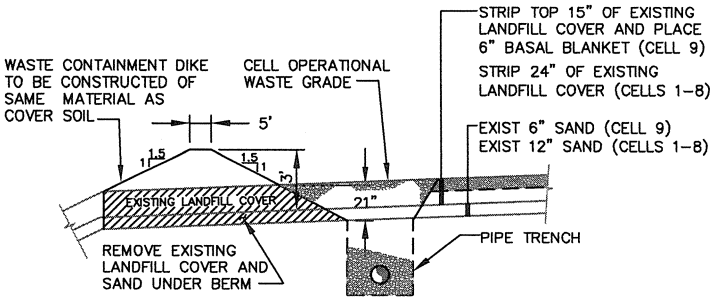
Construction to prepare the Phase IV area will consist of removing existing cover soil from the top Cells 6 and 7 for on-site stockpiling and re-use in final cover construction (see Section 2.3), construction of a perimeter waste containment berm, and installation of the base leachate collection sand drainage layer, piping, and leachate collection catch basin(s).

2.2 Intermediate Closure Phases

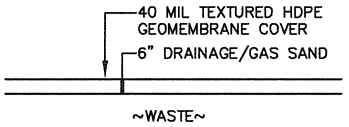
With the exception of Phase I, each phase of the cell optimization will also include an intermediate closure to cover open waste areas that have reached final waste grade as well as areas previously closed with existing intermediate soil cover. The intermediate cover system proposed for Phases II through VII will include the following components:

- a 40-mil HDPE textured geomembrane; underlain by
- a 6-inch sand drainage/gas transmission layer and passive gas vents.

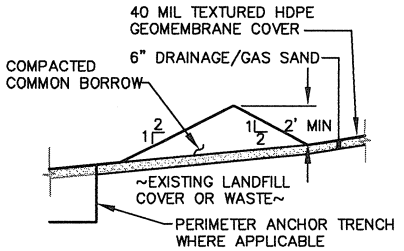




CONTAINMENT BERM
NTS



INTERMEDIATE COVER
NTS



SURFACE WATER DIVERSION BERM
NTS

NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTOS INC., NORRIDGEWOCK, MAINE. PHOTO DATE 5/14/2008.

2. PROPOSED GRADES SHOWN REPRESENT TOP OF WASTE GRADES PRIOR TO COVER.

3. CELL WASTE CAPACITY INCLUDES PRECEDING REMOVAL OF 2' EXISTING VEGATATIVE COVER.

4. PHASE III DEVELOPMENT ON TOP OF CELLS 1-8 WEST, PHASE III CLOSURE ON CELL 17 AND TOP OF CELLS 15-17.

LEGEND

- PROPOSED INTERMEDIATE COVER
- EXISTING INTERMEDIATE COVER
- CLEAN WATER FLOW
- LEACHATE FLOW

PHASE III (SEE NOTE 4):

CELL WASTE CAPACITY	= 265,000 CY
OPEN AREA	= 15.2 AC
COVER AREA	= 14.2 AC

FIGURE 3
PHASE III
DOLBY III OPTIMIZATION & CLOSURE PLAN
DOLBY III LANDFILL
KATAHDIN PAPER COMPANY, LLC
EAST MILLINOCKET, MAINE

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DWG: DOLBYIII-OPT-CLOSURE LMN: PH-3 CTB: SME-STD REV: 1/14/10

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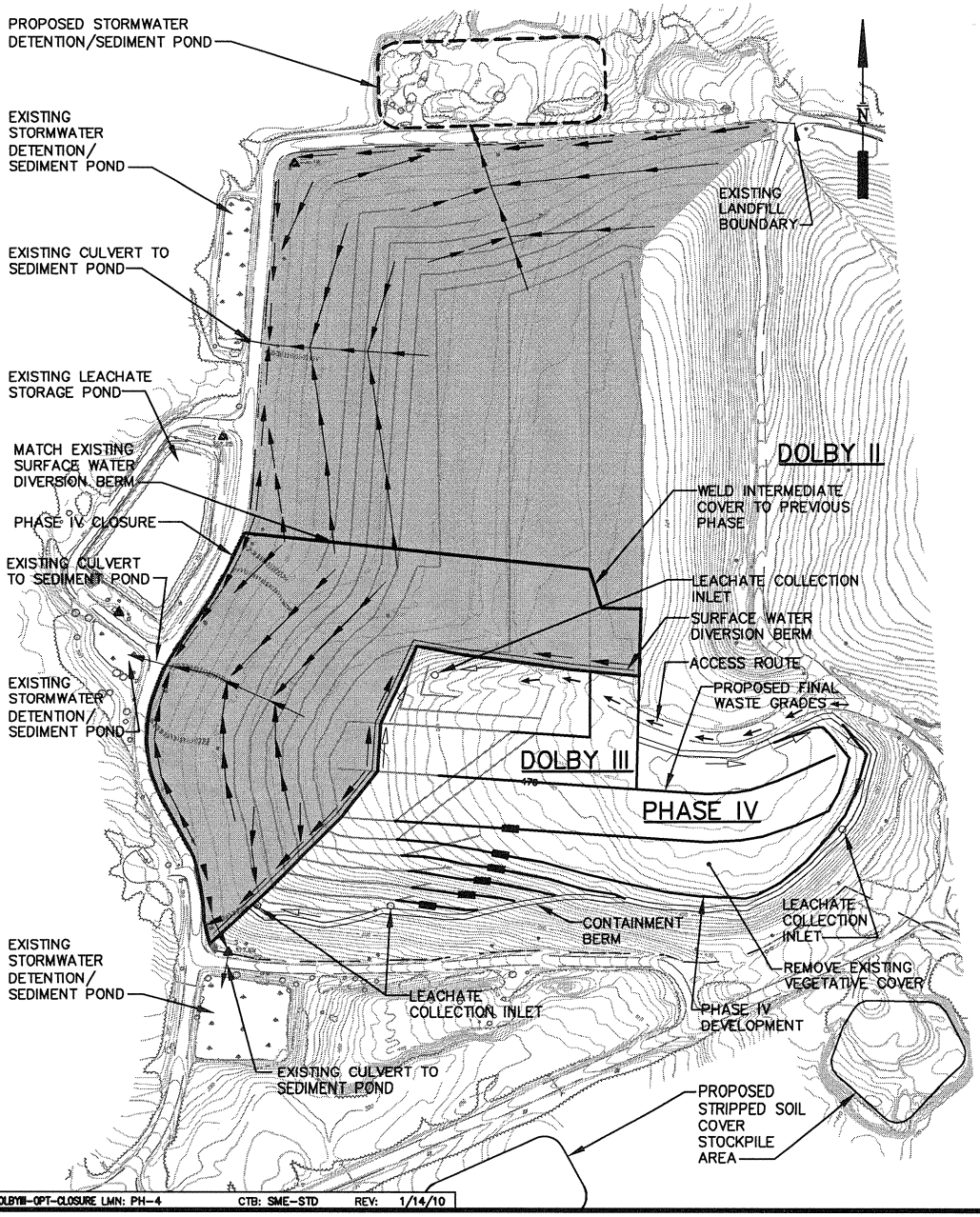

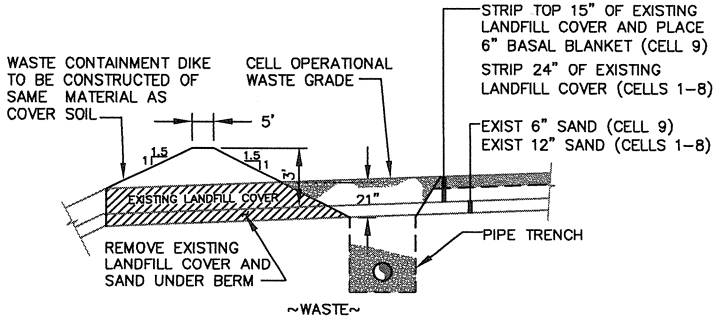

CONTAINMENT BERM
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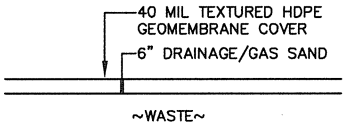

INTERMEDIATE COVER
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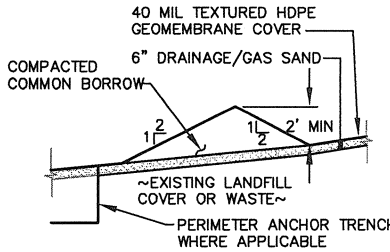

SURFACE WATER DIVERSION BERM
NTS

NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTOS INC., NORRIDGEWOCK, MAINE. PHOTO DATE 5/14/2008.

2. PROPOSED GRADES SHOWN REPRESENT TOP OF WASTE GRADES PRIOR TO COVER.

3. CELL WASTE CAPACITY INCLUDES PRECEDING REMOVAL OF 2' EXISTING VEGATATIVE COVER.

4. PHASE IV DEVELOPMENT ON TOP OF CELLS 1-8 EAST, PHASE IV CLOSURE ON CELLS 1-8 WEST.

PHASE IV (SEE NOTE 4):

CELL WASTE CAPACITY	= 164,000 CY
OPEN AREA	= 14.5 AC
COVER AREA	= 13.1 AC

LEGEND

- PROPOSED INTERMEDIATE COVER
- EXISTING INTERMEDIATE COVER
- CLEAN WATER FLOW
- LEACHATE FLOW

150 0 300 FEET

FIGURE 4
PHASE IV
DOLBY III OPTIMIZATION & CLOSURE PLAN
DOLBY III LANDFILL
KATAHDIN PAPER COMPANY, LLC
EAST MILLINOCKET, MAINE

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Common to each phase of intermediate closure will be the following:

- Clean water diversion berms will be constructed beneath the liner system to manage quantities and directions of surface runoff from the liner and prevent runoff from entering open landfill areas;
- Existing riprap aprons, where applicable, will be removed prior to placement of the intermediate cover system;
- Landfill perimeter ditches accepting runoff from the liner will be appropriately graded and lined for stormwater and erosion control;
- Existing areas with soil/sludge mixed cover (i.e., Cells 9 through 14 sideslopes) will be grubbed to remove vegetation prior to placement of intermediate cover components;
- Existing areas of soil cover (i.e., Cells 1 through 8) will have the 24-inch barrier soil layer stripped and stockpiled for re-use in the final cover system (see Section 2.3). The existing 12-inch drainage sand layer of the current cover system will remain for in-place for re-use as the minimum 6-inch thick sand drainage/gas transmission layer required beneath the 40-mil HDPE textured geomembrane.

The proposed intermediate cover system is designed to remain in-place until final covering is implemented, with the intent that the materials could transition into use as the base layers of the proposed final cover system.

In anticipation for future use of the "Valley-Fill" area, the closure sequencing is structured to implement closure of the east side (existing interim covered sideslope) of Dolby III as the last part of the intermediate closure process (Phase VII Closure). In that way, there will be some time in the closure schedule to adjust the closure to accommodate future use of the Valley Fill area.

Phase II Closure. Phase II includes an intermediate closure that will follow the completion of landfilling to final waste grades in the area of Phase I development. The intermediate cover

system for Phase II will close approximately 9.7 acres of the northern sideslope of the Phase I area and underlying cells (Cells 10 through 14), as shown by the shaded region on Figure 2. The western sideslope of the Phase I area will remain as open waste to buttress the waste landfilled as part of Phase II development.

A containment berm placed along the perimeter of the cover will keep precipitation runoff from entering open landfill areas. Runoff from the cover system will be directed to the north into a system of sideslope drainage swales and perimeter ditches that route flows to the existing stormwater detention/sedimentation pond near the northwest corner of Dolby III.

Phase III Closure. Phase III includes an intermediate closure that will commence upon the completion of landfilling to final waste grades in the area of Phase II development (i.e., Cell 17). The intermediate cover system for Phase III will close approximately 14.2 acres of the top of Cells 15 through 17, and the majority of the western Cell 9 sideslope as shown by the shaded region on Figure 3. The southern sideslope of the Phase II area will remain as open waste to buttress the waste landfilled as part of Phase III development.

A containment berm placed along the east and south perimeter of the cover will keep precipitation runoff from entering open landfill areas. A diversion berm positioned in a south to north direction atop the Phase II area will divide a portion of the precipitation runoff to the north, with the remainder of runoff flowing to the west. The runoff directed to the north from the Phase III closure area will be routed into a system of sideslope drainage swales and perimeter ditches to the proposed stormwater detention / sediment pond proposed at the north side of Dolby III (to be built during Phase III construction). The runoff directed to the west will be routed into a system of sideslope drainage swales and perimeter ditches to the existing stormwater detention/sedimentation pond near the northwest corner of Dolby III.

Phase IV Closure. Phase IV includes an intermediate closure that will follow the completion of landfilling to final waste grades in the area of Phase III development (i.e., southwest side of Dolby III). The intermediate cover system for Phase IV will close approximately 13.1 acres of Dolby III as shown by the shaded region on Figure 4. The southern sideslope of the Phase III area will remain as open waste to buttress the waste landfilled as part of Phase IV development.

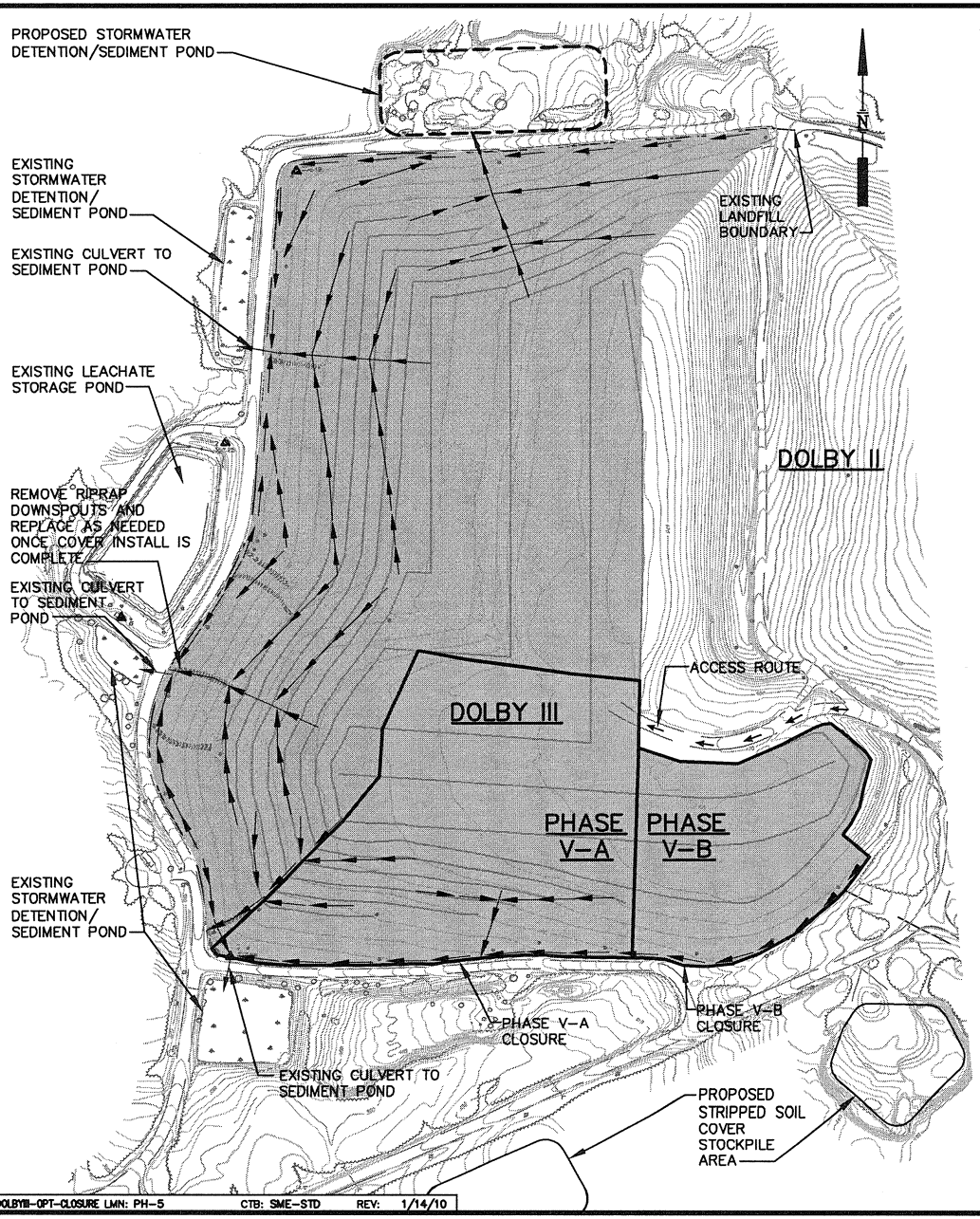
A containment berm placed along the southern perimeter of the cover will keep precipitation runoff from entering open landfill areas. The runoff from the Phase IV closure area is routed to the west into a system of clean water diversion berms, sideslope drainage swales, and perimeter ditches to the existing stormwater detention/sedimentation pond to the northwest and west of Dolby III.

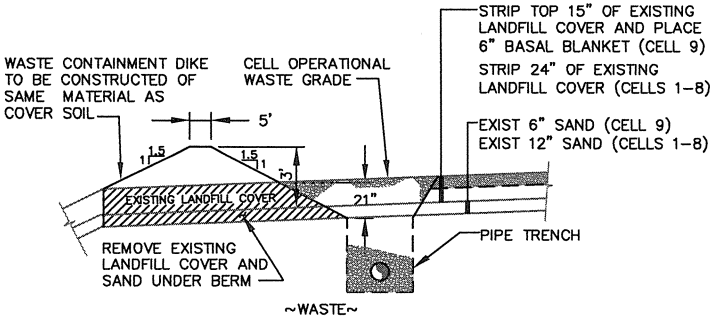
Phase V Closure. Phase V includes an intermediate closure that will commence upon the completion of final waste grades in the area of Phase IV development (i.e., the southeast side of Dolby III). The intermediate cover system for Phase V has been developed in two stages, Phase V-A and Phase V-B, each to be completed during separate construction seasons to cover the large closure area. The limits of Phase V-B closure area may be adjusted in anticipation for future use of the "Valley-Fill" area. Phase V-A will close approximately 13.1 acres of the south side of Dolby III, while Phase V-B will close approximately 6.4 acres of the southeast side of Dolby III as shown by the shaded regions on Figure 5.

A containment berm placed along the eastern perimeter of the cover will keep precipitation runoff from entering open landfill areas. The runoff from the Phase V closure area is routed to the west into a system of clean water diversion berms, sideslope drainage swales, and perimeter ditches to the existing stormwater detention/sedimentation ponds to the west and the southwest corner of Dolby III.

Phase VI Closure. Phase VI includes an intermediate closure that will follow the completion of Phase V-B Closure if the Valley Fill area does not undergo landfill development. The intermediate cover system for Phase VI will close approximately 10.7 acres of the eastern sideslope of Dolby III as shown by the shaded region on Figure 6.

The runoff from the Phase VI closure area is routed to the east into a system of clean water diversion berms, sideslope drainage swales, and perimeter ditches to the proposed stormwater detention/sedimentation pond north of Dolby III.





CONTAINMENT BERM
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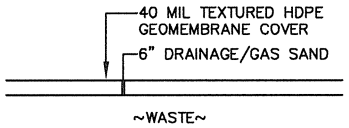
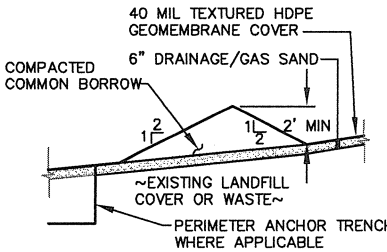


INTERMEDIATE COVER
NTS



SURFACE WATER DIVERSION BERM
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NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTOS INC., NORRIDGEWOCK, MAINE. PHOTO DATE 5/14/2008.
2. PROPOSED GRADES SHOWN REPRESENT TOP OF WASTE GRADES PRIOR TO COVER.
3. CELL WASTE CAPACITY INCLUDES PRECEDING REMOVAL OF 2' EXISTING VEGATATIVE COVER.
4. PHASE V CLOSURE ON TOP OF CELLS 1-8 EAST.

PHASE V (SEE NOTE 4):

CELL WASTE CAPACITY = N/A
OPEN AREA = N/A
PHASE V-A COVER AREA= 13.1 AC
PHASE V-B COVER AREA= 6.4 AC

LEGEND

- PROPOSED INTERMEDIATE COVER
- EXISTING INTERMEDIATE COVER
- CLEAN WATER FLOW
- LEACHATE FLOW

FIGURE 5
PHASE V
DOLBY III OPTIMIZATION & CLOSURE PLAN
DOLBY III LANDFILL
KATAHDIN PAPER COMPANY, LLC
EAST MILLINOCKET, MAINE

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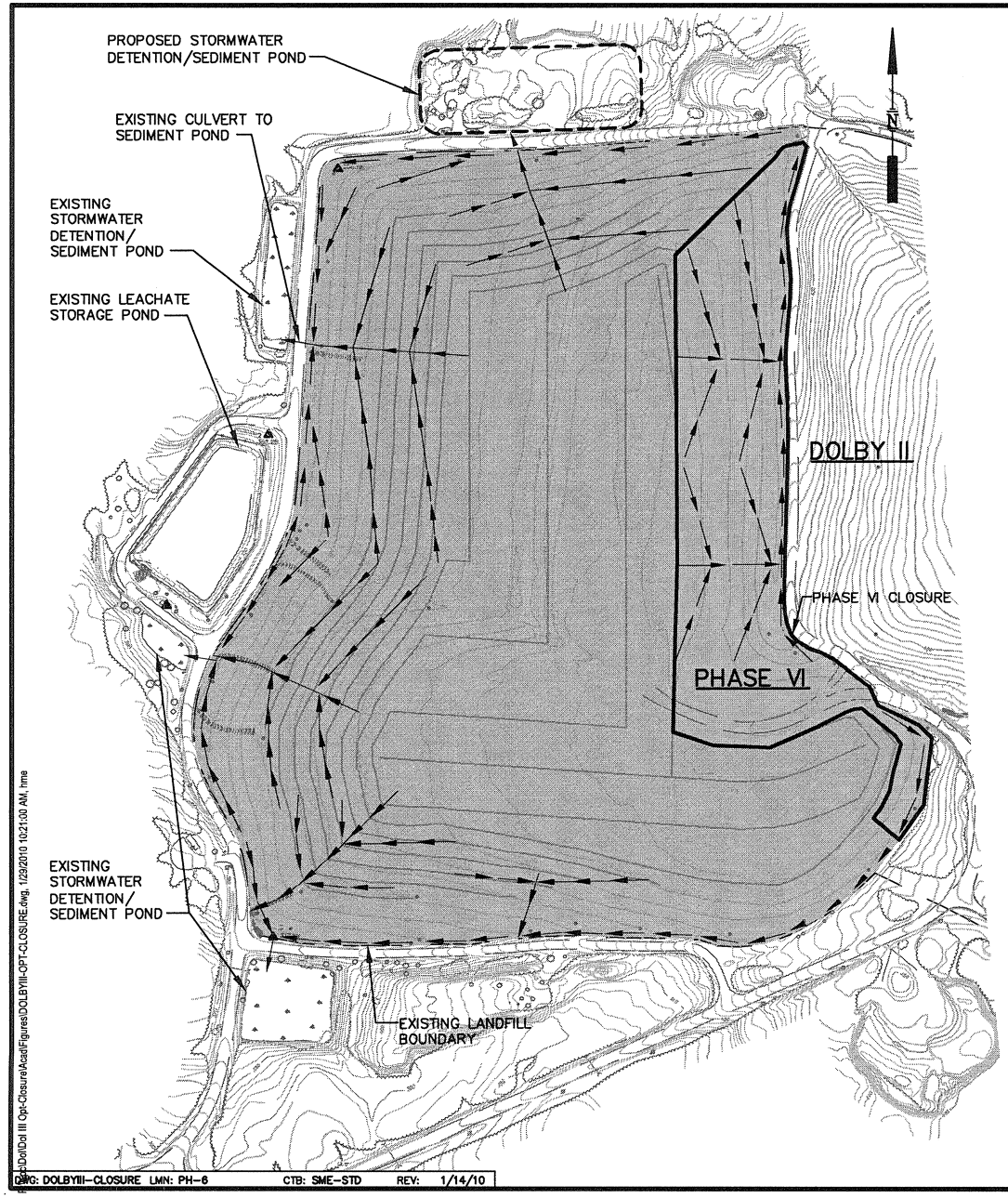

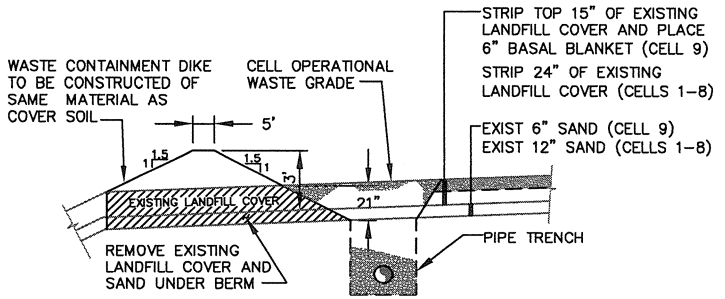

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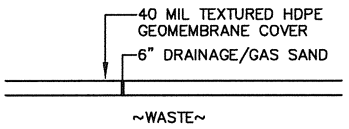

INTERMEDIATE COVER
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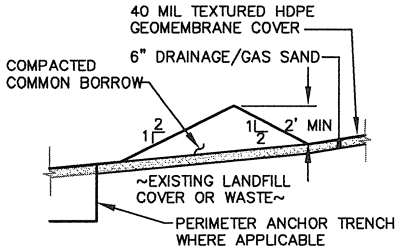

SURFACE WATER DIVERSION BERM
NTS

NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTOS INC., NORRIDGEWOCK, MAINE. PHOTO DATE 5/14/2008.
2. PROPOSED GRADES SHOWN REPRESENT TOP OF WASTE GRADES PRIOR TO COVER.
3. PHASE VI CLOSURE ON EAST SIDE OF CELLS 14 & 15.
4. CLOSURE IN EVENT VALLEY–FILL DEVELOPMENT DOES NOT OCCUR.

LEGEND

PROPOSED INTERMEDIATE COVER

EXISTING INTERMEDIATE COVER

CLEAN WATER FLOW

150 0 300 FEET

PHASE VI (SEE NOTE 3):

CELL WASTE CAPACITY	= N/A
OPEN AREA	= N/A
COVER AREA	= 10.7 AC

FIGURE 6
PHASE VI
DOLBY III OPTIMIZATION & CLOSURE PLAN
DOLBY III LANDFILL
KATAHDIN PAPER COMPANY, LLC
EAST MILLINOCKET, MAINE

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2.3 Final Closure Phases

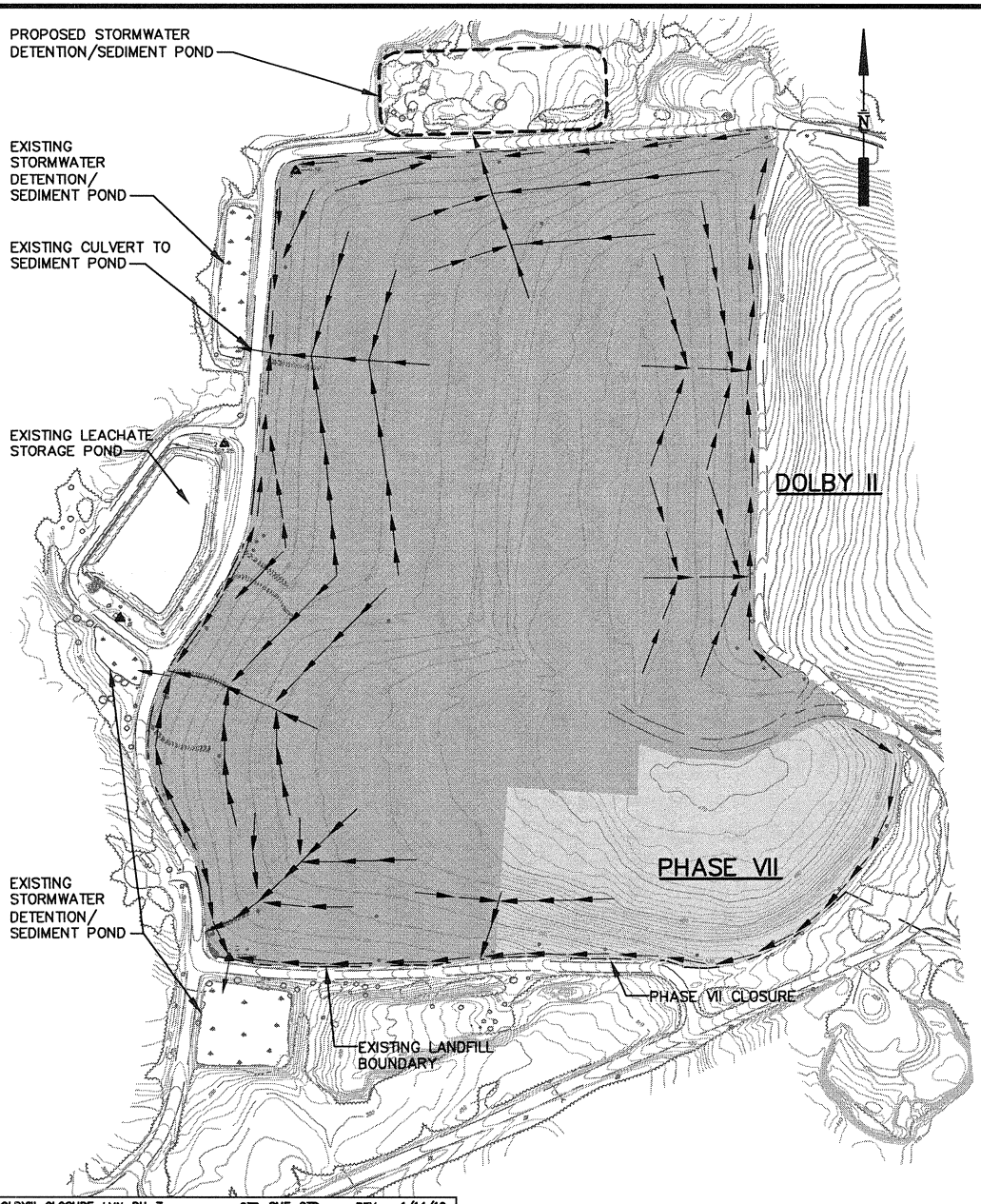
Phases VIII through XIII will incorporate the final closure of the Dolby III Landfill. At least one year prior to the anticipated start of final closure at the Dolby III Landfill, KPC shall submit a complete final closure application prepared in accordance with the provisions of 06-096 CMR 401.5. Construction of the final cover system will include the re-use of the intermediate cover system (40-mil geomembrane and 6-inch sand) where possible, and adding the specified buildup of the geocomposite drainage net and 18-inch layer of a medium suitable for growing grass. The final cover system proposed for the Dolby III Landfill includes the following components:

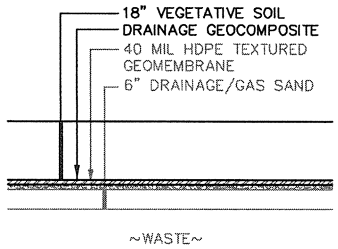
- an 18-inch thick layer of a medium suitable for growing grass; underlain by
- a geocomposite drainage net; underlain by
- a 40-mil HDPE textured geomembrane (installed as part of the intermediate cover); underlain by a minimum 6-inch thick sand drainage/gas transmission layer and passive gas vents (installed as part of the intermediate cover).

Construction of the final cover system above Cells 1 through 8 will include re-use of existing in-place cover system components, as follows:

- The 24-inch vegetated soil layer of the current cover system will be stripped and stockpiled during the intermediate cover construction, then re-used to build the 18-inch vegetated layer specified above the geocomposite drainage net.
- The 12-inch drainage sand layer of the current cover system will remain for reuse as the minimum 6-inch thick sand drainage/gas transmission layer specified beneath the 40-mil HDPE textured geomembrane during intermediate cover construction.

Phase VII Closure. The final cover system for Phase VII will close approximately 10.5 acres of the southeast side of Dolby III as shown by the shaded region on Figure 7. Runoff from the Phase VII closure area will be directed to the south into a system of clean water diversion berms, sideslope drainage swales with collector drains, riprap-lined downspouts, and perimeter





FINAL COVER
NTS

NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTOS INC., NORRIDGEWOCK, MAINE. PHOTO DATE 5/14/2008.

2. PROPOSED GRADES SHOWN REPRESENT TOP OF WASTE GRADES PRIOR TO COVER.

PHASE VII:

COVER AREA = 10.5 AC

LEGEND

- PROPOSED FINAL COVER
- EXISTING FINAL COVER
- EXISTING INTERMEDIATE COVER
- CLEAN WATER FLOW

150 0 300 FEET

FIGURE 7
PHASE VII
DOLBY III OPTIMIZATION & CLOSURE PLAN
DOLBY III LANDFILL
KATAHDIN PAPER COMPANY, LLC
EAST MILLINOCKET, MAINE

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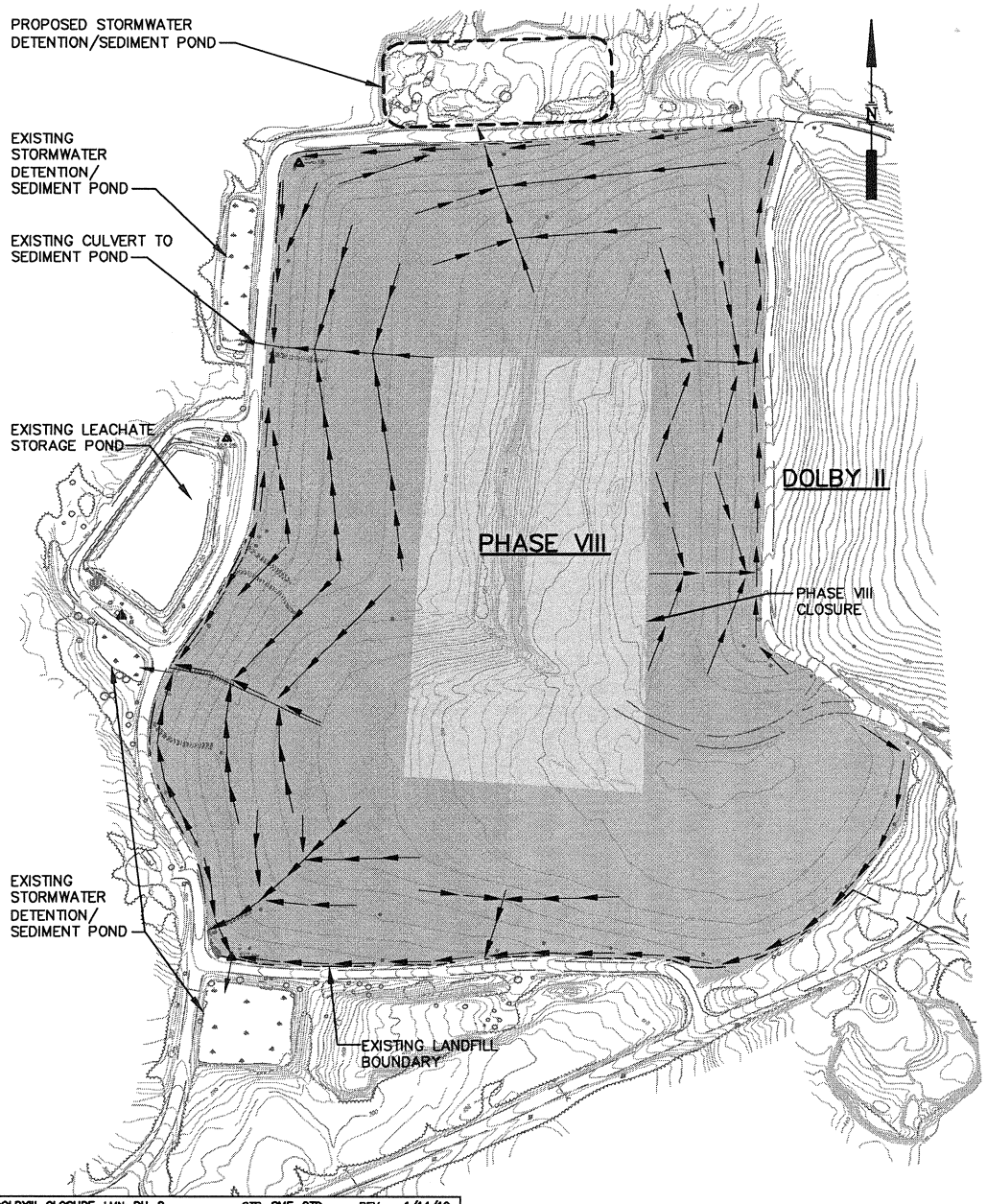
ditches that will route flows to the existing stormwater detention/sedimentation pond located on the southwest side of Dolby III.

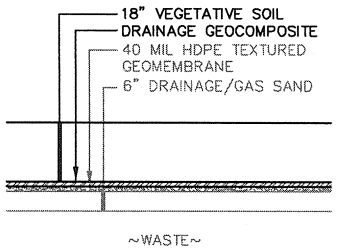
Phase VIII Closure. The final cover system for Phase VIII will close approximately 13.9 acres of the upper area of Dolby III as shown by the shaded region on Figure 8. Runoff from the Phase VIII closure area will be directed to the west into a system of clean water diversion berms, sideslope drainage swales with collector drains, riprap-lined downspouts, and perimeter ditches that will route flows to the existing stormwater detention/sedimentation pond located on the west side of Dolby III.

Phase IX Closure. The final cover system for Phase IX will close approximately 10.5 acres of the southwest side of Dolby III as shown by the shaded region on Figure 9. Runoff from the Phase IX closure area will be directed to the west into a system of clean water diversion berms, sideslope drainage swales with collector drains, riprap-lined downspouts, and perimeter ditches that will route flows to the existing stormwater detention/sedimentation ponds located on the west and southwest sides of Dolby III.

Phase X Closure. The final cover system for Phase X will close approximately 9.9 acres of the west side of Dolby III as shown by the shaded region on Figure 10. Runoff from the Phase X closure area will be directed to the west into a system of clean water diversion berms, sideslope drainage swales with collector drains, riprap-lined downspouts, and perimeter ditches that will route flows to the existing stormwater detention/sedimentation pond located on the west side of Dolby III.

Phase XI Closure. The final cover system for Phase XI will close approximately 12.7 acres of the northern side of Dolby III as shown by the shaded region on Figure 11. Runoff from the Phase XI closure area will be directed to the north and west into a system of clean water diversion berms, sideslope drainage swales, and perimeter ditches that will route flows to the existing and proposed stormwater detention/sedimentation ponds located on the northwest and north sides of Dolby III, respectively.





FINAL COVER
NTS

NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTOS INC., NORRIDGEWOCK, MAINE. PHOTO DATE 5/14/2008.

2. PROPOSED GRADES SHOWN REPRESENT TOP OF WASTE GRADES PRIOR TO COVER.

PHASE VIII:

COVER AREA = 13.9 AC

LEGEND

- PROPOSED FINAL COVER
- EXISTING FINAL COVER
- EXISTING INTERMEDIATE COVER
- CLEAN WATER FLOW

150 0 300 FEET

FIGURE 8
PHASE VIII
DOLBY III OPTIMIZATION & CLOSURE PLAN
DOLBY III LANDFILL
KATAHDIN PAPER COMPANY, LLC
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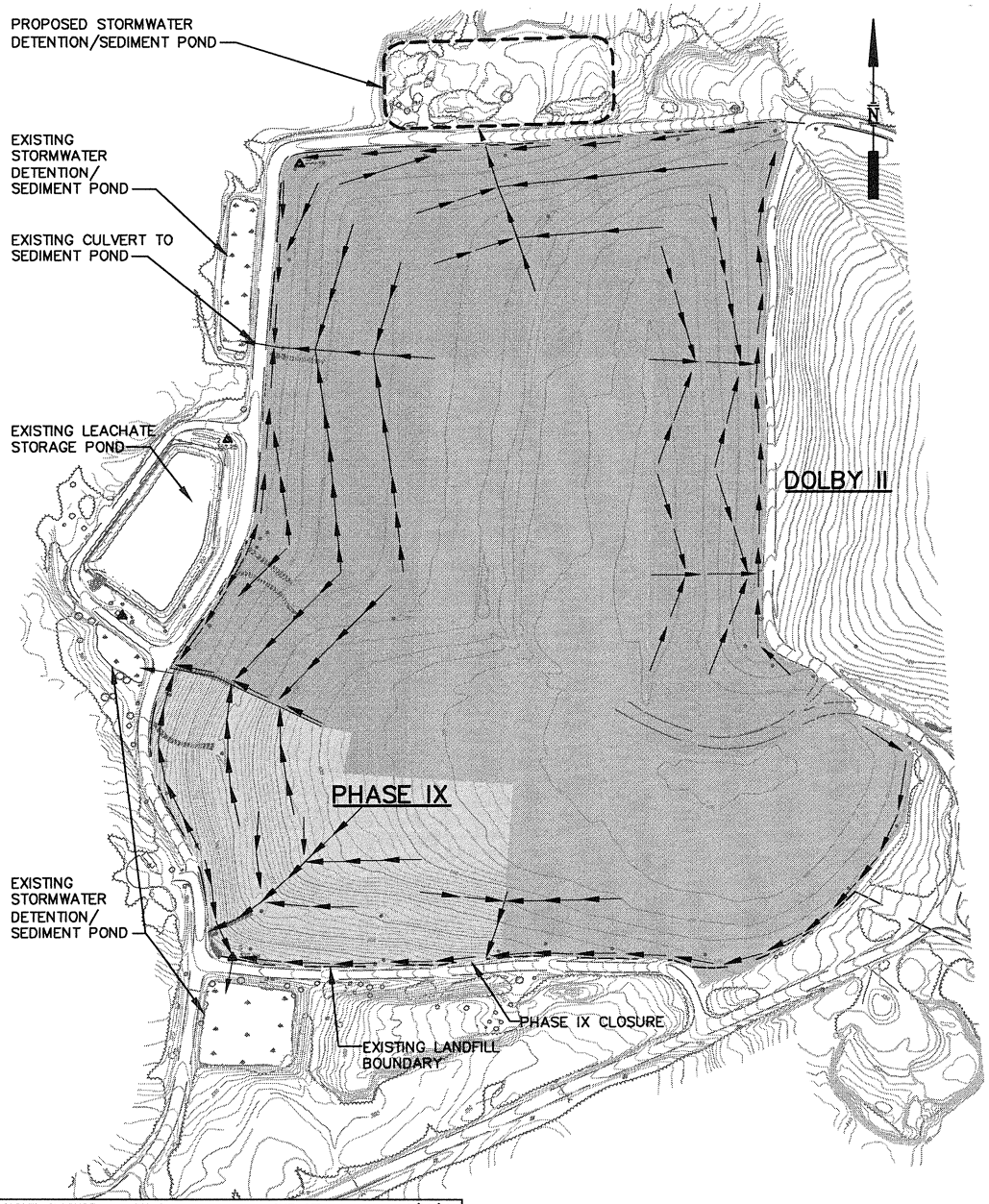

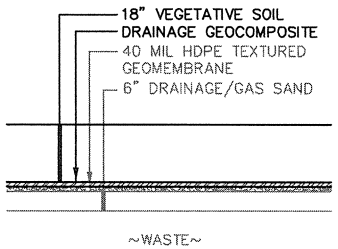

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1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTOS INC., NORRIDGEWOCK, MAINE. PHOTO DATE 5/14/2008.

2. PROPOSED GRADES SHOWN REPRESENT TOP OF WASTE GRADES PRIOR TO COVER.

PHASE IX:

COVER AREA = 10.5 AC

LEGEND

- PROPOSED FINAL COVER
- EXISTING FINAL COVER
- EXISTING INTERMEDIATE COVER
- CLEAN WATER FLOW

150 0 300 FEET

FIGURE 9
PHASE IX
DOLBY III OPTIMIZATION & CLOSURE PLAN
DOLBY III LANDFILL
KATAHDIN PAPER COMPANY, LLC
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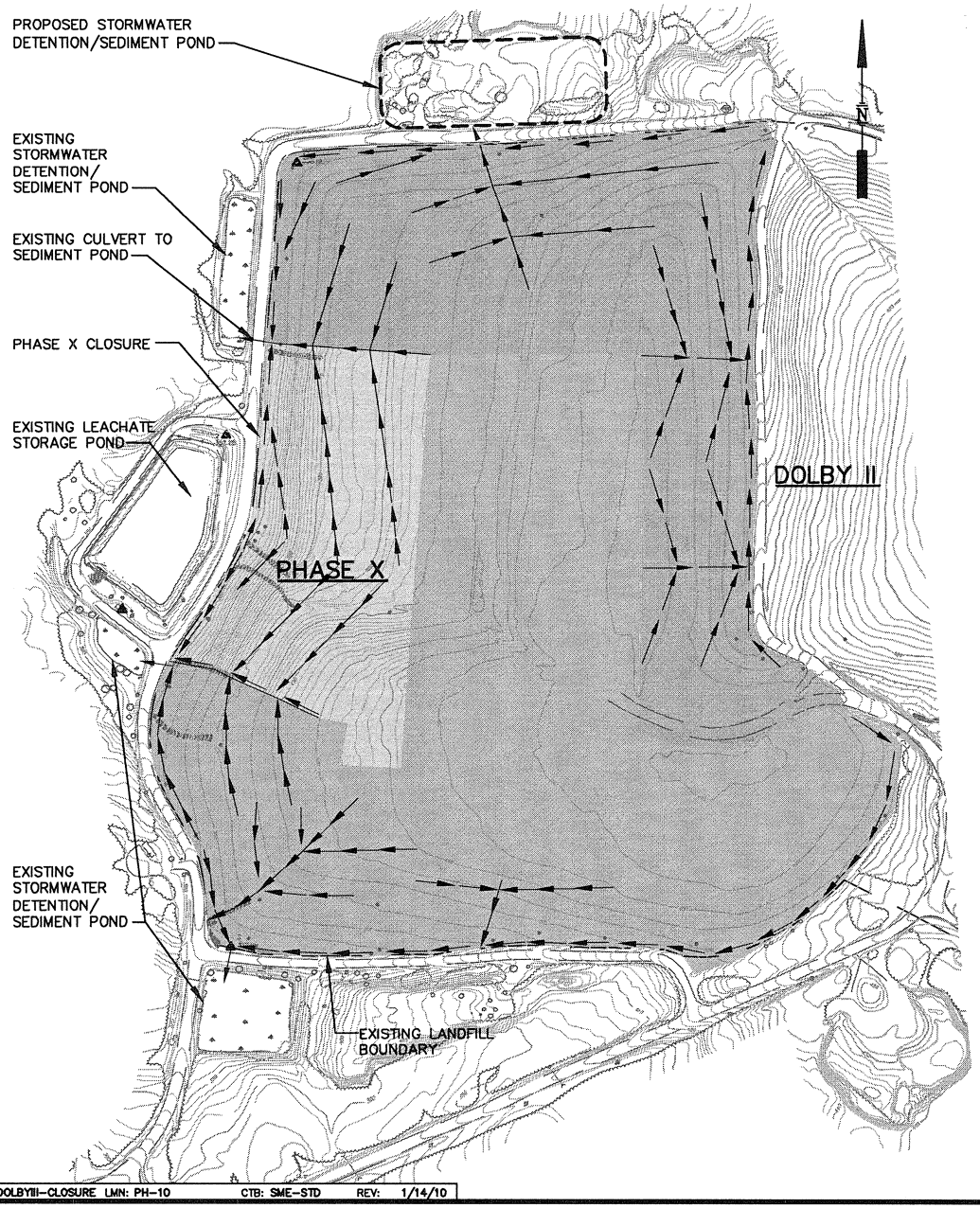

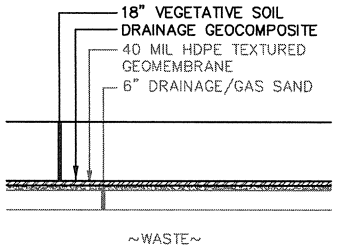

FINAL COVER
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1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTOS INC., NORRIDGEWOCK, MAINE. PHOTO DATE 5/14/2008.

2. PROPOSED GRADES SHOWN REPRESENT TOP OF WASTE GRADES PRIOR TO COVER.

LEGEND

- PROPOSED FINAL COVER
- EXISTING FINAL COVER
- EXISTING INTERMEDIATE COVER
- CLEAN WATER FLOW

150 0 300 FEET

PHASE X:

COVER AREA = 9.9 AC

FIGURE 10
PHASE X
DOLBY III OPTIMIZATION & CLOSURE PLAN
DOLBY III LANDFILL
KATAHDIN PAPER COMPANY, LLC
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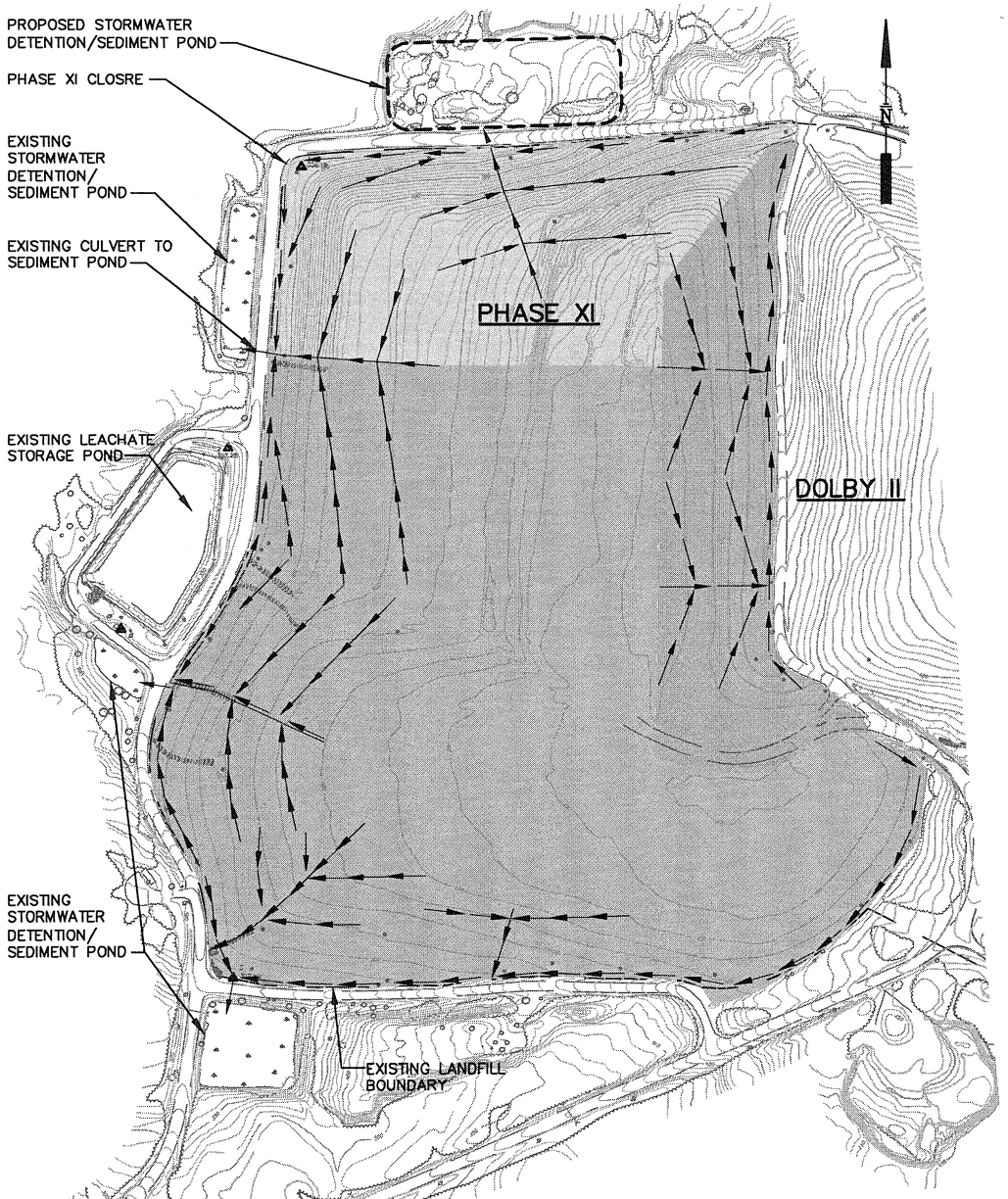

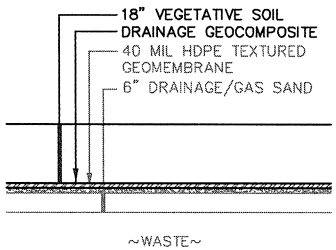

FINAL COVER
NTS

NOTES

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2. PROPOSED GRADES SHOWN REPRESENT TOP OF WASTE GRADES PRIOR TO COVER.

LEGEND

- PROPOSED FINAL COVER
- EXISTING FINAL COVER
- EXISTING INTERMEDIATE COVER
- CLEAN WATER FLOW

150 0 300 FEET

PHASE XI:

COVER AREA = 12.7 AC

FIGURE 11
PHASE XI
DOLBY III OPTIMIZATION & CLOSURE PLAN
DOLBY III LANDFILL
KATAHDIN PAPER COMPANY, LLC
EAST MILLINOCKET, MAINE

SME
Sevee & Maher Engineers, Inc.
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

DWG: DOLBYIII-CLOSURE LMN: PH-11 CTB: SME-STD REV: 1/14/10

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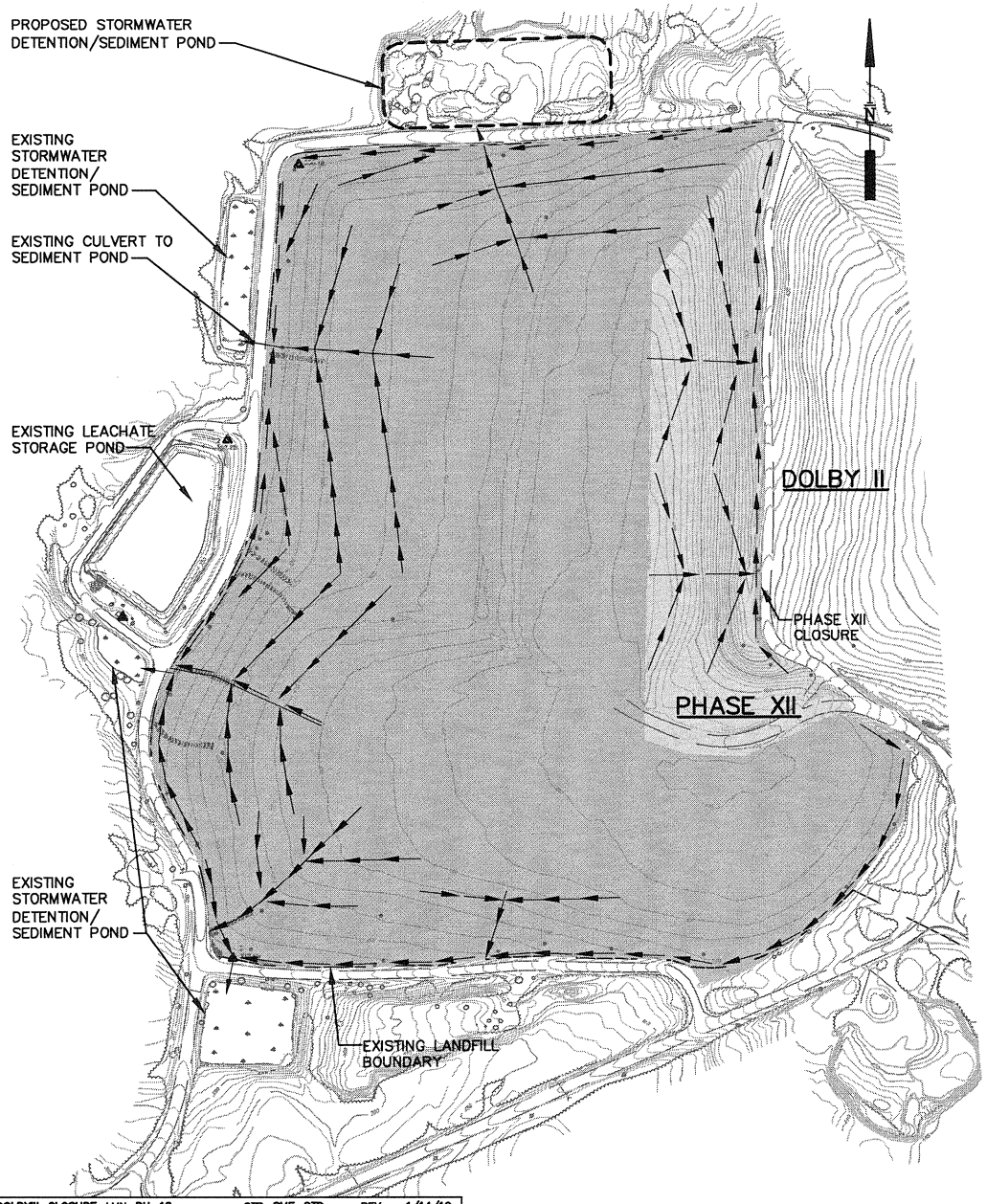
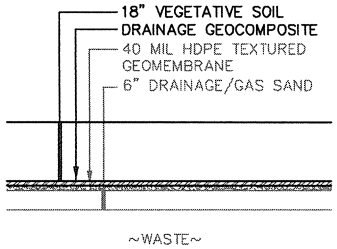
Phase XII Closure. Phase XII includes a final closure that will follow the completion of Phase XI Closure if the Valley Fill area does not undergo landfill development. The final cover system for Phase XII will close approximately 9.6 acres of the east side of Dolby III as shown by the shaded region on Figure 12. Runoff from the Phase XII closure area will be directed to the east into a system of clean water diversion berms, sideslope drainage swales with collector drains, riprap-lined downspouts, and perimeter ditches that will route flows to the proposed stormwater detention/sedimentation pond located on the north side of Dolby III.





FINAL COVER
NTS

NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTOS INC., NORRIDGEWOCK, MAINE. PHOTO DATE 5/14/2008.

2. PROPOSED GRADES SHOWN REPRESENT TOP OF WASTE GRADES PRIOR TO COVER.

LEGEND

- PROPOSED FINAL COVER
- EXISTING FINAL COVER
- EXISTING INTERMEDIATE COVER
- CLEAN WATER FLOW

150 0 300 FEET

PHASE XII:

COVER AREA = 9.6 AC

FIGURE 12
PHASE XII
DOLBY III OPTIMIZATION & CLOSURE PLAN
DOLBY III LANDFILL
KATAHDIN PAPER COMPANY, LLC
EAST MILLINOCKET, MAINE

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DWG: DOLBYIII-CLOSURE LMN: PH-12 CTB: SME-STD REV: 1/14/10

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3.0 CLOSURE PROCEDURES

The following subsections describe various closure procedures and activities that will be performed prior to/during each closure phase.

3.1 Grading and Construction

Prior to each closure phase, a surveyor will check elevations to assure that the proper grades exist, and there are no low areas or depressions within the surface. The surveyor will also check the perimeter slopes to be sure they are as shown on the engineering plans for each phase. Spot elevations will be taken in the surface runoff ditches to assure that proper drainage slopes exist.

Areas receiving final or intermediate cover placement that are vegetated shall be stripped of existing topsoil material prior to cover construction.

The first stage of cover construction will be placement of a passive gas collection system of 4-inch perforated gas collection piping and gas collection sand placed above the waste and below the intermediate cover, which vent above grade through 4-inch 'cane-style' solid-wall gas venting pipe.

Runoff from the closure areas will be separated from active waste cells and previously closed cells through a system of perimeter containment berms. Clean water diversion berms will be constructed of granular soils beneath the liner system to manage quantities and directions of surface runoff from the cover during each phase. The geomembrane cover will be anchored on the outside of the perimeter containment berms or seamed to the geomembrane cover of abutting closure areas (where applicable). A system of lined terraces, downspouts, and pipe drains will be constructed on the sideslopes receiving final cover to prevent erosion of the vegetative layer in the final cover system.

3.2 Seeding

All areas that have been closed with final cover will be seeded. Seeding will normally occur between April 30 and September 30. All surface water runoff control facilities such as drainage ditches, berms, and culverts are to be constructed prior to seeding. All grading will also be performed prior to seeding. The top layer of soil should be loosened by raking, discing, or other acceptable means before seeding. Lime (3 tons/acre, or as needed based on testing) and fertilizer (1,300 lbs/acre of 10/10/10, or as needed based on testing) will be harrowed or disced into the soil at a minimum of 3 inches. If the site is hydroseeded, lime, fertilizer and seed can be applied simultaneously. The seed mixture to be used is as shown below.

SEEDING MIXTURE (OR EQUAL)

Tall Fescue	70 lb/acre
Red Fescue	30 lb/acre
Red Top	6 lb/acre
Ladino Clover	4 lb/acre
Annual Ryegrass	10 lb/acre
	120 lb/acre

The seed will be applied uniformly with a cyclone seeder, drill, cultipack seeder, or hydroseeder. Seed should not be planted if there is a danger of frost shortly after seed germination. Maximum seeding depth is 1/4 inch when using methods other than hydroseeding.

3.3 Stormwater Management and Erosion Control

Stormwater will be managed at the facility through a series of channels, ditches, and culverts. The closed facility will shed surface water along engineered channels to the perimeter of the landfill aided by a series of lined downspouts designed to limit erosion. The lined channels will outlet into channels surrounding the facility which flow to a number of detention ponds and ultimately into Partridge Brook Flowage/Dolby Pond. Prior to each closure construction phase, a stormwater analysis will be completed to design stormwater management features around a 25-year/24-hour duration storm.

In general, the following procedures will be followed for erosion control on the seeded areas:

- Slopes - On 4:1 sideslopes or steeper, the seeding shall be applied by hydroseeding with an asphalt binder or excelsior matting to control erosion. Berms shall divert runoff from the top of the slopes to established ditches.
- Drainage ditches - The grass-bottomed drainage ditches will be seeded in the same manner as the remainder of the site. The same mulch specified above will be placed in these areas. Lightweight biodegradable paper, plastic, or cotton nettings will be placed within the ditches to anchor the mulch.

3.4 Long-Term (Post-Closure) Maintenance

The subsections below describe the various activities that will be performed to assure the long-term integrity of the landfill after final closure.

3.4.1 Mowing. To prevent deep-rooted tree growth, the closed portions of the landfill and drainage ditches will be mowed at least once per year. Mowing will occur after July 15 to protect ground-nesting birds. Annual mowing of closed out areas of the landfill shall be parallel to the contours to avoid rutting and erosion problems.

3.4.2 Site Inspection. Once the landfill is closed, the area will be inspected by the Environmental Department in the spring and fall of each year to ensure the cover system integrity is maintained against differential settlement, erosion and other problems. The inspection will include an examination of the following items:

- surface drainageways
- surface grading
- grass growth

Each inspection will include notation of any problems and recommended remedial actions and be documented on Landfill Inspection Reports used for closure inspections.

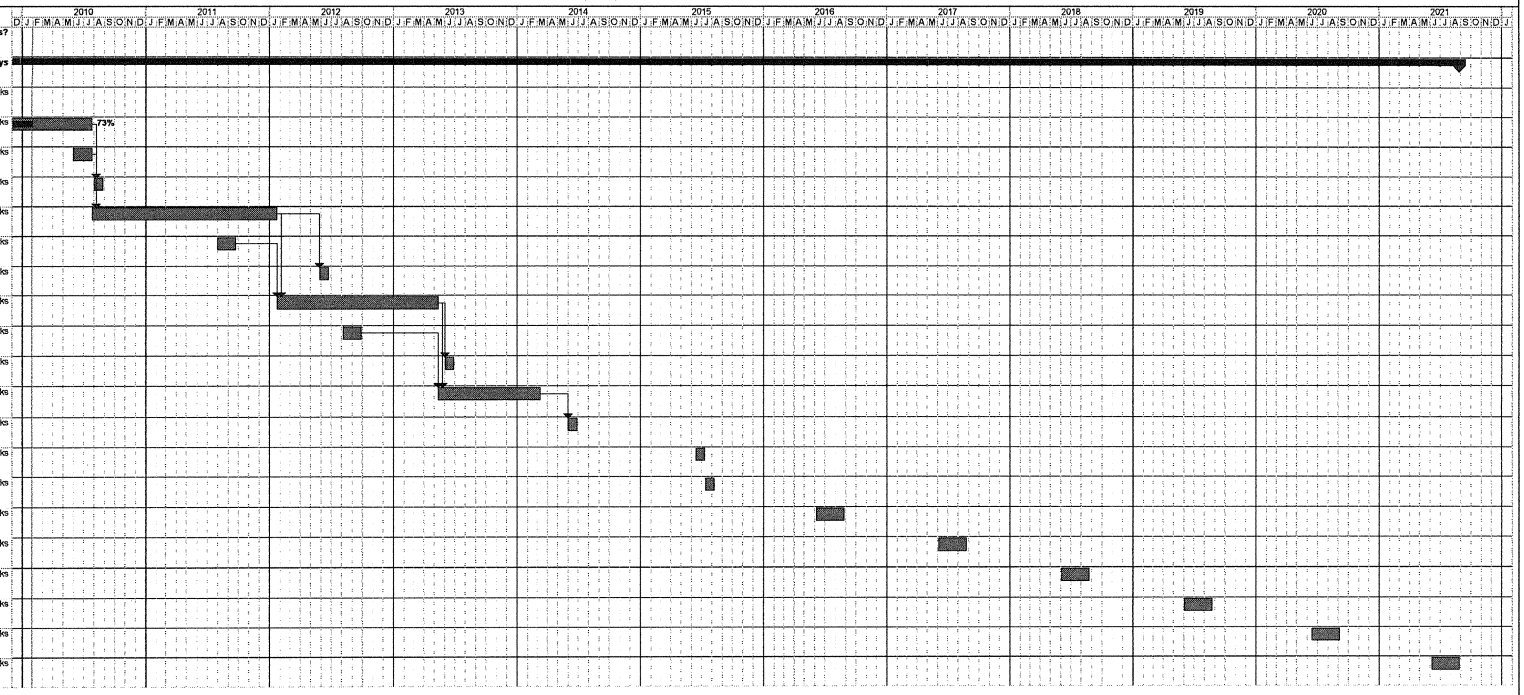
Access to the closed areas of the facility shall be controlled during the post-closure period to limit threats to the cover systems, threats to public health, safety or the environment.

ATTACHMENT 1

DOLBY III OPTIMIZATION AND CLOSURE SCHEDULE

KATAHDIN PAPER COMPANY
DOLBY III LANDFILL - CELL OPTIMIZATION AND CLOSURE
PROJECT SCHEDULE (DRAFT)

ID	Task Name	Duration
1	**VALLEY FILL VERTICAL HEIGHT INCREASE**	**5006 days?**
87	**DOLBY III LANDFILL - CELL OPTIMIZATION AND CLOSURE**	**3385 days**
88	Cell 16 - Development	4 wks
89	Cell 15 & 16 - Operation	92.6 wks
90	Phase II: Cell 17 - Development	8 wks
91	Phase II: Intermediate Closure	4 wks
92	Phase II: Cell 17 - Operation	78 wks
93	Phase III: Cell 1-8 West Development	8 wks
94	Phase III: Cell 17 Intermediate Closure	4 wks
95	Phase III: Cell 1-8 West Operation	68 wks
96	Phase IV: Cell 1-8 East Development	8 wks
97	Phase IV: Cell 1-8 West Intermediate Closure	4 wks
98	Phase IV: Cell 1-8 East Operation	43 wks
99	Phase V-A: Cell 1-8 East Intermediate Closure	4 wks
100	Phase V-B: Cell 1-8 East Intermediate Closure	4 wks
101	Phase VI: Dolby III East Side Intermediate Closure	4 wks
102	Phase VII: Final cover - Southeast	12 wks
103	Phase VIII: Final cover - Upper	12 wks
104	Phase IX: Final cover - Southwest	12 wks
105	Phase X: Final cover - West	12 wks
106	Phase XI: Final cover - North	12 wks
107	Phase XII: Final cover - East	12 wks



Fri 01/29/10

APPENDIX I

RECORD DRAWING LIST

STATE PLANNING OFFICE
DOLBY III LANDFILL
RECORD DRAWING LIST

Job Record No.		Drawing No.	Title of Drawing
94133		CD-2680	Process Sludge Landfill - Plot Plan
		CD-2681	Process Sludge Landfill - Road Profile & Entrance Detail
		CD-2682	Process Sludge Landfill - Sections & Details
		CB-11739	Sludge Landfill Area - Location Plan
		CB-12114	Sludge Landfill Area - General Plan with Approximate Volumes
94305		YC-4971	Borrow Pit Traverse - Dolby 2 Landfill Site Perimeters & Area Available
	*	YB-14790	Dolby 3 Landfill - Existing Topography Map
	*	YB-14794	Dolby 3 Landfill - Access Road - Typical Sections & Details
	*	YB-14795	Dolby 3 Landfill - Access Road - Typical Sections & Details
	*	YB-14796	Dolby 3 Landfill - Site Development Plan
	*	YB-15095	Dolby Landfill Area - Cross Sections of Proposed Borrow Pit
	*	YB-15098A	Dolby Landfill Area - Drainage and Erosion Control Detail
	*	YB-15263	Dolby 3 Landfill Area - Topographic & Digital Survey - December 5, 1985
94450		YB-15402 (Sheet 1)	Dolby Landfill Area - Borrow Pit & Pit Access Road Plan
		YB-15402 (Sheet 2)	Dolby Landfill Area - Borrow Pit & Pit Access Road Plan
		YB-15403 (Sheet 1)	Dolby Landfill Area - Drainage Detention Basin Plan, Sections & Details
		YB-15403 (Sheet 2)	Dolby Landfill Area - Drainage Detention Basin Plan, Sections & Details
	*	YB-15709	Dolby 3 Landfill - Cover Sheet
	*	YB-15710A	Dolby 3 Landfill - Cell 2 Site Location Plan
	*	YB-15711A	Dolby 3 Landfill - Cell 2 Site Development Plan
	*	YB-15777	Dolby Landfill Area - Close Exhausted Borrow Pit - Topograghic Survey & Digitized - July 29,1987
94498		YB-15911	Dolby 3 Landfill - Cells 3A & 3B - Cover Sheet
		YB-15912	Dolby 3 Landfill - Cells 3A & 3B - Symbols & Abbreviations
		YB-15913	Dolby 3 Landfill - Cells 3A & 3B - Site Location Plan
		YB-15914	Dolby 3 Landfill - Cells 3A & 3B - Site Development Plan
		YB-15915	Dolby 3 Landfill - Cells 3A & 3B - Sections & Details
	*	YB-16183 (Sheet 1)	Sedimentation Remediation Plan
	*	YB-16183 (Sheet 2)	Sedimentation Remediation Plan
	*	YB-16184	Sedimentation Remediation Plan - Sections & Details
94528		YB-19000	Dolby 3 Landfill - Cell 4 - Cover Sheet
		YB-19001	Dolby 3 Landfill - Cell 4 - Symbols & Abbreviations
		YB-19002 (Sheet 1)	Dolby 3 Landfill - Cell 4 - Site Location Plan
		YB-19002 (Sheet 2)	Dolby 3 Landfill - Cell 4 - Site Location Plan
		YB-19003	Dolby 3 Landfill - Cell 4 - Site Development Plan
		YB-19004	Dolby 3 Landfill - Cell 4 - Sections & Details
		YB-19005	Dolby 3 Landfill - Cell 4 - Final Grading Plan
	*	YB-19049	Dolby 3 Landfill - Remedial Measures for Cells 2 & 3
	*	YB-19050	Dolby 3 Landfill - Cell 4 Final Graing Plan
94545		YB-19086	Dolby 3 Landfill - Cell 5 - Cover Sheet
		YB-19087	Dolby 3 Landfill - Cell 5 - Symbols & Abbreviations
		YB-19088 (Sheet 1)	Dolby 3 Landfill - Cell 5 - Site Location Plan
		YB-19088 (Sheet 2)	Dolby 3 Landfill - Cell 5 - Site Location Plan
		YB-19090	Dolby 3 Landfill - Cell 5 - Site Development Plan
		YB-19091	Dolby 3 Landfill - Cell 5 - Sections & Details
	*	YB-19162	Dolby 3 Landfill - con Pit - Cell 2 Expansion - Site Development Plan
	*	YB-19167	Dolby 3 Landfill - Final Cover Cells 3A, 3B & 4 - Cover Sheet

STATE PLANNING OFFICE
DOLBY III LANDFILL
RECORD DRAWING LIST

Job Record No.		Drawing No.	Title of Drawing
	*	YB-19168	Dolby 3 Landfill - Final Cover Cells 3A, 3B & 4 - Symbals & Abbreviations
	*	YB-19169	Dolby 3 Landfill - Final Cover Cells 3A, 3B & 4 - Site Location Plan
	*	YB-19170	Dolby 3 Landfill - Final Cover Cells 3A, 3B & 4 - Existing Topography Plan
	*	YB-19171	Dolby 3 Landfill - Final Cover Cells 3A, 3B & 4 - Sections & Details
	*	YB-19179A	Dolby 3 Landfill - Remedial Measures fo Cells 1 & 2 - Existing Topography Cell 1
	*	YB-19180A	Dolby 3 Landfill - Remedial Measures fo Cells 1 & 2 - Existing Topography Cell 2
	*	YB-19181A	Dolby 3 Landfill - Remedial Measuers for Cells 1 & 2 - Sections & Details
	*	YB-19300	Dolby 3 Landfill - Cell 5 - Site Plan
	*	YB-19328	Temporary Leachate Pond - Dolby 2 Landfill
	*	YB-19413	Dolby Storage Area Closure Sampling Plan
	*	YB-19416	Dolby 3 Landfill - Asbestos Disposal Plan
	*	YB-20021	Doby 2 Landfill - Northeast Interceptor Trench Extension
	*	YB-20023	Dolby 3 Landfill - Cell 6 - Final Grading Plan
	*	YB-20024	Dolby 3 Landfill - Cell 6 - Site Development Plan
	*	YB-20544	Dolby 3 Landfill - Cell 7 - Site Development Plan
	*	YB-20545	Dolby 3 Landfill - Cell 7 - Final Grading Plan
	*	YB-20546	Dolby 3 Landfill - Cell 7 - Details, Sections & Material Specifications
	*	YB-21000	Dolby 3 Landfill - Cell 6 Closure, Cell 8 & 9 Construction - Cover Sheet
	*	YB-21001	Dolby 3 Landfill - Cell 6 Closure, Cell 8 & 9 Construction - Symbals & Abbreviations
	*	YB-21002	Dolby 3 Landfill - Cell 6 Closure, Cell 8 & 9 Construction - Site Location Plan
	*	YB-21003	Dolby 3 Landfill - Cell 8 - Site Development Plan
	*	YB-21004	Dolby 3 Landfill - Cell 9 - Site Development Plan
	*	YB-21005	Dolby 3 Landfill - Cell 8 - Final Grading Plan
	*	YB-21006	Dolby 3 Landfill - Cell 6 Closure, Cell 8 & 9 Construction - Sections & Details
94654		GYB-23039	Cell 9 Construction
		GYB-23040	Symbols & Abbreviations
		GYB-23041	Site Location Plan
		GYB-23042	Site Development Plan
		GYB-23043	Final Grading Plan
		GYB-23044 (Sheet 1)	Cell 9 Construction
		GYB-23044 (Sheet 2)	Cell 9 Construction
94678	*	YB-23382	Dolby 3 Landfill - Cell 7 & 8 Closure - Final Grading Plan
		GYB-23378	Cell 10 Construction Cover Sheet
		GYB-23379	Cell 10 Construction
		GYB-23380	Cell 10 Construction Site Location
		GYB-23381	Cell 10 Construction Site Development
		GYB-23382	Cells 7 & 8 Closure Final Grading Plan
		GYB-23383	Cell 10 Construction Final Grading Plan
		GYB-23384	Cell 10 Construction Sections & Details
67996		GYB-23586	Regrading of Dolby 2 - Cover Sheet
		GYB-23587	Regrading of Dolby 2 - Symbols & Abbreviations
		GYB-23588	Regrading of Dolby 2 - Site Location Plan
		GYB-23589	Regrading of Dolby 2 - Site Development Plan
		GYB-23590	Regrading of Dolby 2 - North Site Development Plan
		GYB-23592	Regrading of Dolby 2 - Final Grading Plan
		GYB-23593	Regrading of Dolby 2 - Sections & Details
94744		GYB-25219	Cell 11 Construction - Cover Sheet
		GYB-25220	Cell 11 Construction - Symbols & Abbreviations

STATE PLANNING OFFICE
DOLBY III LANDFILL
RECORD DRAWING LIST

Job Record No.	Drawing No.	Title of Drawing
	GYB-25221	Cell 11 Existing Conditions Plan
	GYB-25222	Cell 11 Site Development Plan
	GYB-25223	Cell 11 Final Grading Plan
	GYB-25224	Cell 11 Sections & Details
94744	YB-25539	Cell 12 Construction - Cover Sheet
	YB-25540	Cell 12 Construction - Symbols & Abbreviations
	YB-25541	Cell 12 Existing Conditions Plan
	YB-25542	Cell 12 Site Development Plan
	YB-25543	Cell 12 Operational Grading Plan
	YB-25544	Cell 12 Sections & Details
94768	YB-26077	Cell 13 Construction - Cover Sheet
	YB-26078	Cell 13 Construction - Symbols & Abbreviations
	YB-26079	Cell 13 Existing Conditions Plan
	YB-26080	Cell 13 Site Development Plan
	YB-26081	Cell 13 Operational Grading Plan
	YB-26082	Cell 13 Sections & Details
	YB-26083	Cell 13 Sections & Details
	YB-26084	Cell 13 Sections & Details
	YB-26109	Leachate Pond - Repiping of Underdrain Discharge Plan
46266	YB-26159	Cell 15 Construction, Cell 14 Closure - Cover Sheet
	YB-26160	Cell 15 Construction, Cell 14 Closure - Symbols and Abbreviations
	YB-26161	Cell 15 Construction, Cell 14 Closure - Existing Conditions Plan
	YB-26162	Cell 15 Construction, Cell 14 Closure - Site Development Plan
	YB-26163	Cell 15 Construction, Cell 14 Closure - Operational Grading Plan
	YB-26164	Cell 15 Construction, Cell 14 Closure - Sections and Details (Sh 1)
	YB-26165	Cell 15 Construction, Cell 14 Closure - Sections and Details (Sh 2)
	YB-26166	Cell 15 Construction, Cell 14 Closure - Sections and Details (Sh 3)
	YB-26187	Leachate Pond Redevelopment - Cover Sheet
	YB-26188	Leachate Pond Redevelopment - Symbols and Abbreviations
	YB-26189	Leachate Pond Redevelopment - Site Location Plan
	YB-26190	Leachate Pond Redevelopment - Existing Conditions Plan
	YB-26191	Leachate Pond Redevelopment - Base Grading and Underdrain Plan
	YB-26192	Leachate Pond Redevelopment - Leak Detection Plan
	YB-26193	Leachate Pond Redevelopment - Sections and Details (Sh 1-3)
	YB-26194	Cell 15 Construction, Cell 14 Closure - Cover Sheet
	YB-26195	Cell 15 Construction, Cell 14 Closure - Symbols and Abbreviations
	YB-26196	Cell 15 Construction, Cell 14 Closure - Existing Conditions Plan
	YB-26197	Cell 15 Construction, Cell 14 Closure - Site Development Plan
	YB-26198	Cell 15 Construction, Cell 14 Closure - Operational Grading Plan
	YB-26199	Cell 15 Construction, Cell 14 Closure - Sections and Details (Sh 1-2)
		Cell 16 Construction - Cover Sheet
	C-100	Cell 16 Construction - Symbols & Abbreviations
	C-101	Cell 16 Construction - Existing Conditions Plan
	C-102	Cell 16 Construction - Site Development Plan
	C-103	Cell 16 Construction - Operational Grading Plan
	C-300	Cell 16 Construction - Sections and Details
* Information provided by SME		

APPENDIX J

ACTION LEAKAGE RATE/RESPONSE ACTION PLAN

Action Leakage Rate/Response Action Plan. A leak detection system is proposed for the leachate pond to monitor the performance of the primary liner. The leak detection system consists of a drainage geocomposite layer below the primary 60-mil HDPE geomembrane. Beneath the leak detection system is a secondary 60-mil HDPE geomembrane over a geosynthetic clay liner (GCL), followed by a 12-inch compacted clay layer. At the south end of the leak detection system is a 6-inch SDR-17 HDPE perforated pipe in a 12-inch layer of ¾-inch drainage stone. Sample tubing will be provided in the leak detection piping system so that Katahdin can sample the contents of the leak detection system. All water collected in the leak detection system drains to the leak detection sump. The leak detection sump is equipped with a 1/2-HP submersible pump, which is activated on a transducer system. The discharge line from the pump contains a flow meter for recording discharge from the leak detection layer. The pump discharges to the leachate pump station sump where it is pumped to the mill for treatment. The leak detection piping layout for the leachate pond and details of the sample location are shown on the Engineering Drawings (attached to letter to Lou Pizzuti dated May 17, 2006). Figures for the Operating Manual will be generated upon MEDEP's final approval of leachate pond redevelopment design.

Estimated Liner Leakage Rates. The amount of leakage through the primary liner depends on several factors, including the following:

- The number and size of holes or imperfections in the geomembrane;
- The head above the primary liner;
- The uniformity of contact between the geomembrane and underlying geocomposite; and,
- The hydraulic conductivity of the material in contact with the primary liner.

Typically, two-hole or imperfections sizes are used in defining leakage rates through a geomembrane liner system. Small holes (i.e., $3x10^{-6}$ m^2) roughly equal to the thickness of the geomembrane should be considered representative of actual field conditions and more typical of operating conditions. A larger hole (i.e., $1x10^{-4}$ m^2) should be used to size the hydraulic

capacity of the leak detection layer (ref. Cell and Liner System Detailed Design (Design Examples), J.P. Giroud/Geosyntec Consultants, 1992).

For the leachate pond, SME calculated leakage rates through the primary liner using the larger hole size. The frequency of imperfections in a geomembrane is associated with the degree of QA/QC associated with the manufacture and installation of the membranes. Because a detailed geomembrane QA/QC program has been developed for the project (ref. "Contract Documents and Construction Specifications for Leachate Pond Redevelopment, Dolby III Landfill", SME, Revised May 2006), a minimal number of defects are anticipated. Giroud et al. suggests that for liner installation with good QA/QC, between one and three manufacture holes per acre and one installation defect per acre can be expected. SME calculated total leakage rates through the primary liner for one hole per acre (with a size of $1x10^{-4}$ m^2) to predict the hydraulic capacity of the leak detection system.

The second variable affecting flow through the primary geomembrane liner is hydraulic head on the liner. SME used a hydraulic head for a pond level at a normal operating depth of two feet to determine the leak detection time.

The last two variables that affect leakage rate through the primary liner are the hydraulic conductivity of the materials in contact with the liner and the contact conditions. Calculated flow estimates were based on the proposed liner design. For primary liner, which will be underlain by a drainage geocomposite and secondary liner, flow rates were estimated based on analytical models developed by Giroud and Bonaparte (1989b) for flow through composite liners. Giroud and Bonaparte defined two conditions corresponding to the contact made between the geomembrane and underlying material that affect the flow through the geomembrane liner. A good contact is defined by Bonaparte et al. as a membrane installed with few wrinkles on top of a low hydraulic conductivity soil layer. Poor contact is defined as a geomembrane installed with a certain number of wrinkles and/or placed on a low-hydraulic conductivity soil layer that has not been well compacted and does not appear smooth. SME developed estimates of leakage through the primary geomembrane liner system for a single geomembrane underlain by a high permeability material (drainage geocomposite).

Based on these variables, leakage rates through the primary geomembrane liner systems were calculated for the worst case. SME also evaluated hydraulic capacities of the leak detection system to handle the calculated flows and the time of travel for these flows in the leak detection systems. The leak detection calculations are included as an attachment to the May 17, 2006 letter to Lou Pizzuti in response to MEDEP comments. For the conditions described above, the calculations demonstrate that the leak detection system has the capacity to both handle worst-case design flows and detect leaks in an approximate 20-hour period. This exceeds the regulatory requirement of detecting leaks from a leachate pond liner system within 24-hours.

An action leakage rate of 20 gallons per acre per day (gpad) has been established for the proposed leachate pond. This is the standard action leakage rate value used by the U.S.EPA and the MEDEP. The action leakage rate (ALR) represents the minimum rate of leakage that will trigger interaction between Katahdin and the MEDEP to determine the appropriate response action for the leakage.

Monitoring Frequency

The total flows will be obtained daily from a flow meter installed on the discharge lines for the leak detection system. Leak detection water quality samples will be collected during the regular water quality sampling rounds three times per year. The water quality samples of the leak detection sump will be collected using a peristaltic pump. The data will be incorporated into the submittals to the MEDEP.

Reporting Procedures

Katahdin will submit a yearly report presenting all of the data collected during the preceding year, and any recommended changes to the monitoring program, such as adjustments of the UAL values.

Response Actions

Katahdin will record daily flow measurements from the leak detection discharge pipe and notify the MEDEP within 5 working days of obtaining four consecutive readings suggesting primary

liner seepage is in exceedance of ALR. As weather conditions allow, Katahdin will drain the leachate pond and visually inspect the liner and repair damaged areas within 15 days and no more than 30 days after notifying the MEDEP. If the visual inspection and subsequent repairs fail to reduce the seepage rate below the ALR, Katahdin will consult with the MEDEP regarding other remedial measures.

Katahdin will prepare a report summarizing the results of the inspection and repairs and submit it to the MEDEP for its review. The report will contain recommendations for continuation of the sampling program.

APPENDIX K

LEACHATE MANHOLE INSPECTION PLAN

KATAHDIN PAPER COMPANY
DOLBY II AND DOLBY III LANDFILLS
LEACHATE COLLECTION MANHOLE INSPECTION
AND MAINTENANCE PLAN

The following provides an inspection and maintenance plan and schedule for the Katahdin Paper Company's (KPC's) Dolby II and Dolby III Landfill leachate collection systems concrete manholes and catch basins. As noted in the Dolby Landfill's Operating Manual (O&M), maintenance schedules, responsibilities, and outside service response should be anticipated and planned with as much detail as possible.

The Dolby II Landfill has a total of 23 accessible leachate collection manholes, which were installed between 1996 and 1997. The Dolby III Landfill contains a total of 43 leachate collection manholes that were installed between 1982 and 2007. Of those 43 manholes at Dolby III, five are not accessible because they have been buried as part of the phased development of the landfill. A summary of the manhole and catch basin structures at the Dolby II and III Landfills are listed on Table 1, see attached. The location of manholes and catch basin structures at the Dolby II and III Landfills are shown on Figure 1, see attached.

In addition to the routine quarterly inspections and maintenance activities of the landfill leachate infrastructure detailed in the O&M, the leachate collection manholes will be thoroughly inspected for deterioration and leakage on a yearly basis, starting in 2008, by Katahdin's Environmental Department. The inspection schedule will be based on a three-year cycle to complete the inspection of all leachate collection manholes and catch basins at the landfill, as identified on Table 1. For example, the first year (2008) will consist of inspecting twenty (20) leachate collection manholes within Dolby III – Cells 1 through 8, which are the oldest concrete manholes on-site (installed from 1982 to 1990). The second year (2009) will consist of inspecting eighteen (18) leachate collection manholes located within Dolby III – Cells 9 through 15 (installed from 1992 to 2007). The third year (2010) will consist of inspecting twenty-three (23) leachate collection manholes within Dolby II North and Dolby II South (installed between 1996-1997). The cycle will then begin again on the fourth year.

Inspection of each leachate collection manhole shall include the following:

- The exterior will be visually inspected for signs of concrete deterioration (cracks, holes, flaking, leachate seeps, etc.). The exterior condition of each manhole will be documented on the attached manhole inspection form.
- The manhole cover will then be removed so a visual inspection using a flashlight to view the interior of the manhole from the top can be completed. Similar to the exterior, the interior of each concrete manhole will be visually inspected for signs of concrete deterioration (cracks, holes, flaking, leachate seeps, etc.) on the walls, pipe penetrations, and barrel joints. The interior condition of the concrete within each manhole will be documented on the attached manhole inspection form.
- Confined space entry will not be necessary to complete the manhole interior inspections, however, inspecting personnel will be required to monitor the ambient air (Hydrogen Sulfide) and follow all health and safety practices during the inspection in accordance with the facility's health and safety program.
- A photo of each manhole's exterior and interior should be taken if possible as a record during the inspection and filed with each manhole's inspection form.

Concrete manhole sections observed and documented in poor condition (deteriorated greater than 50% of the wall thickness, or leaking) will be restored or replaced. If siltation or dirt buildup is observed, it will be scheduled for cleaning as necessary. As new manholes are added to the sites, they will be added to the inspection program and this maintenance plan will be updated.

TABLE 1
KATAHDIN PAPER COMPANY LLC
DOLBY II AND DOLBY III LANDFILLS
SUMMARY OF MANHOLE STRUCTURES

Summary of Manhole and Catch Basin Structures. (Dolby II Landfill)

	Manhole / Catch Basin No.	Location (Landfill - Cell)	Construction Year	Accessible/Not Accessible	Next Scheduled Inspection (Year)	Inspection Notes (Inspected by, Date, Condition, etc)
Dolby II	Existing CB	Dolby II - North	1996-1997	Accessible	2010	
	CB #36	Dolby II - North	1996-1997	Accessible	2010	
	CB #37	Dolby II - North	1996-1997	Accessible	2010	
	CB #38	Dolby II - North	1996-1997	Accessible	2010	
	CB #39	Dolby II - North	1996-1997	Accessible	2010	
	CB #40	Dolby II - North	1996-1997	Accessible	2010	
	CB #41	Dolby II - North	1996-1997	Accessible	2010	
	CB #42	Dolby II - North	1996-1997	Accessible	2010	
	CB #43	Dolby II - North	1996-1997	Accessible	2010	
	CB #44	Dolby II - South	1996-1997	Accessible	2010	
	CB #45	Dolby II - South	1996-1997	Accessible	2010	
	D2-#1	Dolby II - North	1996-1997	Accessible	2010	
	D2-#2	Dolby II - North	1996-1997	Accessible	2010	
	D2-#3	Dolby II - North	1996-1997	Accessible	2010	
	D2-#4	Dolby II - South	1996-1997	Accessible	2010	
	D2-#5	Dolby II - South	1996-1997	Accessible	2010	
	D2-#6	Dolby II - North	1996-1997	Accessible	2010	
	D2-#7	Dolby II - North	1996-1997	Accessible	2010	
	D2S-#1	Dolby II - South	1996-1997	Accessible	2010	
	D2S-#2	Dolby II - South	1996-1997	Accessible	2010	
	D2S-#3	Dolby II - South	1996-1997	Accessible	2010	
	D2S-#4	Dolby II - South	1996-1997	Accessible	2010	
	D2S-#5	Dolby II - South	1996-1997	Accessible	2010	

TABLE 1
KATAHDIN PAPER COMPANY LLC
DOLBY II AND DOLBY III LANDFILLS
SUMMARY OF MANHOLE STRUCTURES

Table 1 (continued)

Summary of Manhole and Catch Basin Structures. (Dolby III Landfill)

	Manhole / Catch Basin No.	Location (Landfill - Cell)	Construction Year	Accessible/Not Accessible	Next Scheduled Inspection (Year)	Inspection Notes (Inspected by, Date, Condition, etc)
Dolby III	CB #1	Dolby III - Cell 1	1982	Not accessible (Buried in waste)	N/A	
	CB #2	Dolby III - Cell 1	1982	Accessible	2011	
	CB #3	Dolby III - Cell 1	1982	Accessible	2011	
	CB #4	Dolby III - Cell 1	1982	Accessible	2011	
	CB #5	Dolby III - Cell 1	1982	Accessible	2011	
	CB #6	Dolby III - Cell 1	1982	Accessible	2011	
	CB #6A	Dolby III - Cell 1	1982	Accessible	2011	
	CB #7	Dolby III - Cell 1	1982	Accessible	2011	
	CB #8	Dolby III - Cell 1	1982	Accessible	2011	
	CB #9	Dolby III - Cell 2	1987	Accessible	2011	
	CB #10	Dolby III - Cell 3-A	1988	Accessible	2011	
	CB #11	Dolby III - Cell 2	1987	Not accessible (Buried in waste)	N/A	
	CB #12	Dolby III - Cell 3-A	1988	Not accessible (Buried in waste)	N/A	
	CB #13	Dolby III - Cell 3-B	1988	Accessible	2011	
	CB #15	Dolby III - Cell 3-B	1988	Not accessible (Buried in waste)	N/A	
	CB #16	Dolby III - Cell 4	1989	Not accessible (Buried in waste)	N/A	
	CB #17	Dolby III - Cell 4	1989	Accessible	2011	
	CB #18	Dolby III - Cell 5	1990	Accessible	2011	
	CB #19	Dolby III - Cell 5	1990	Accessible	2011	
	CB #20	Dolby III - Cell 5	1990	Accessible	2011	
	CB #21	Dolby III - Cell 5	1990	Accessible	2011	
	CB #22	Dolby III - Cell 5	1990	Accessible	2011	
	CB #23	Dolby III - Cell 5	1990	Accessible	2011	
	CB #24	Dolby III - Cell 5	1990	Accessible	2011	
	CB #25	Dolby III - Cell 5	1990	Accessible	2011	
	CB #26	Dolby III - Cell 9	1995	Accessible	2012	
	CB #27	Dolby III - Cell 9	1995	Accessible	2012	
	CB #28	Dolby III - Cell 9	1995	Accessible	2012	
	CB #29	Dolby III - Cell 9	1995	Accessible	2012	
	CB #30	Dolby III - Cell 9	1995	Accessible	2012	
	CB #31	Dolby III - Cell 10	1996-1997	Accessible	2012	
	CB #32	Dolby III - Cell 10	1996-1997	Accessible	2012	
	CB #33	Dolby III - Cell 11	1996-1997	Accessible	2012	
	CB #34	Dolby III - Cell 12	1996-1997	Accessible	2012	
	CB #35	Dolby III - Cell 13	1996-1997	Accessible	2012	
	D3-#1	Dolby III - Cell 7	1992-1993	Accessible	2012	
	D3-#2	Dolby III - Cell 8	1993-1994	Accessible	2012	
	D3-#3	Dolby III - Cell 8	1993-1994	Accessible	2012	
	D3-#4	Dolby III - Cell 8	1993-1994	Accessible	2012	
	D3-#5	Dolby III - Cell 8	1993-1994	Accessible	2012	
	D3-#6	Dolby III - Cell 7	1992-1993	Accessible	2012	
	D3-#7	Dolby III - Cell 15	2007	Accessible	2012	
	D3-#8	Dolby III - Cell 15	2007	Accessible	2012	
	D3-#9	Dolby III - Cell 16	2008	Accessible	2012	
	D3-#10	Dolby III - Cell 16	2008	Accessible	2012	

KATAHDIN PAPER COMPANY

CONCRETE MANHOLE INSPECTION FORM

Manhole / Catch Basin No: _____

Landfill Location: _____

Date: _____ Time: _____

Weather: _____ Inspected by: _____

Date of last inspection: _____

Exterior Condition (Comments): _____

_____

_____

_____

_____

_____

Interior Condition (Comments): _____

_____

_____

_____

_____

_____

Corrective Action required (Y/N): _____

Date and Details of Corrective Actions (if needed): _____

_____

Attachments: Photos

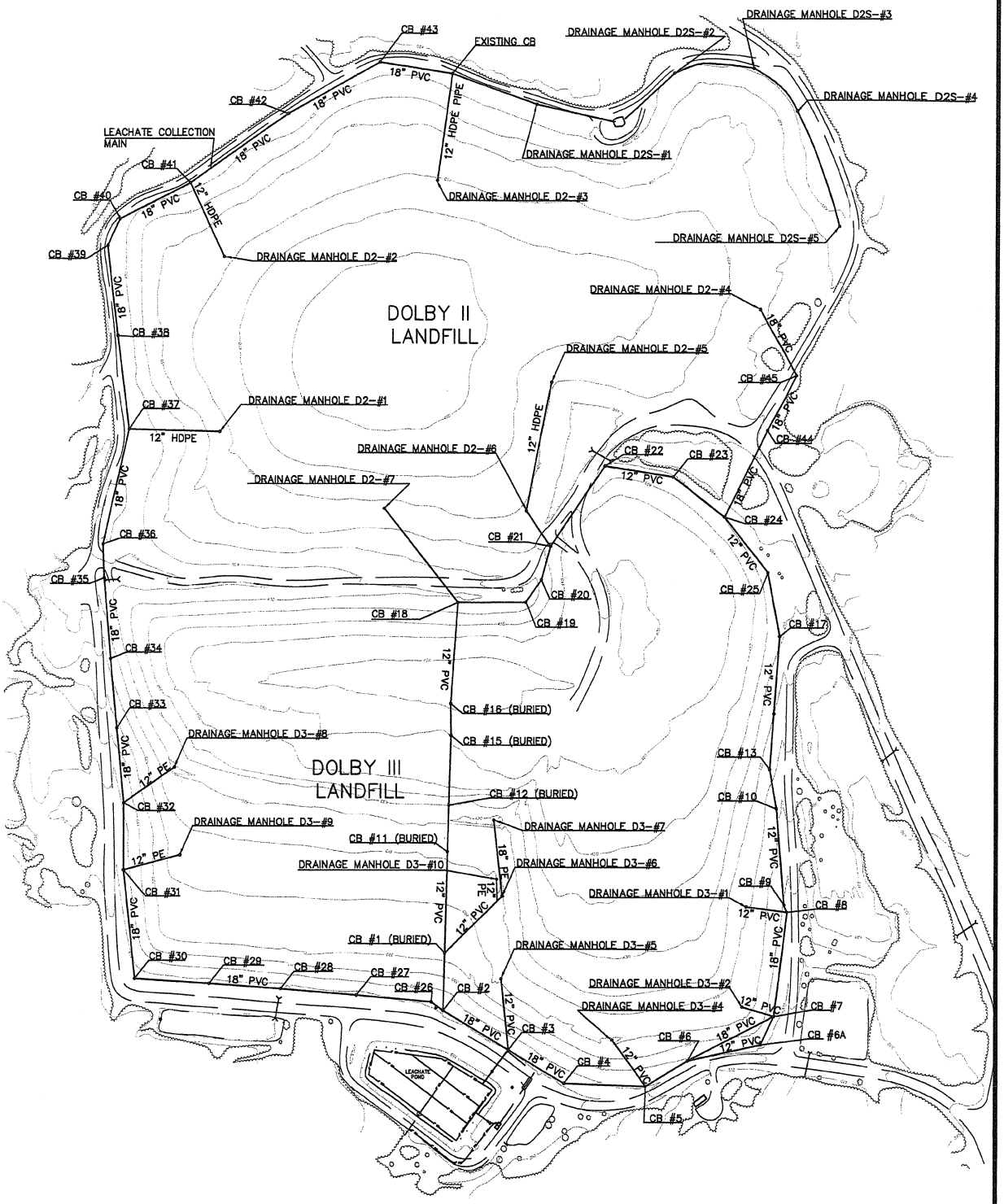


FIGURE 1
EXISTING MANHOLE AND CATCH BASIN PLAN
DOLBY II & III LANDFILLS
KATAHDIN PAPER COMPANY LLC

SME
Sevee & Maher Engineers, Inc.
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

DWG: PIPE-LOCATION LMN: PIPE-LOCATION CTB:Pipe-LocationREV: 4/27/10

\\Aserver\cfs\Kpc\Dol\ACAD\Pipe-Location.dwg, 4/27/2010 11:03:52 AM, naf

APPENDIX L

OPERATOR INSPECTION FORMS

DOLBY LANDFILL
LANDFILL OPERATOR DAILY INSPECTION CHECKLIST

Date: _____ Time: _____

Weather: _____ Inspected By: _____

Item	Condition		
DOLBY II LANDFILL	Ok	Not Ok	
LEACHATE HOLDING POND			To Be Completed By Sheridan Smith
Level of Pond (low, medium, or high)			
Outlet Structure Accessible			
DOLBY III LANDFILL			
COVER SYSTEM			
Erosion, Channeling, Eruptions			
Poor Drainage, Ponding			
PERIMETER DRAIN AND CATCH BASINS			
Flow Conditions (slow, medium or fast)			
Catch Basins Intact and Serviceable			
ACTIVE CELL			
Containment Dikes Intact and Functioning			
Cell Access Road Condition			
Leachate Collection Structures Intact and Functioning			
SITE ROADWAYS			
Check Roadway Ditches for Signs of Erosion			
Silt Fence Properly Installed (if applicable)			
LEACHATE COLLECTION POND			To Be Completed By D &S
Liner			
Pond Level			
LEACHATE PUMP STATION			
Flow Measurement (gallons)			
LEAK DETECTION SYSTEM			
Leachate level			
Flow Measurement (gallons)			
LEACHATE PIPELINE			
Manholes Intact and Serviceable			

COMMENTS: _____

_____

_____

_____

ACTION TAKEN: _____

_____

_____

_____

DOLBY LANDFILL
QUARTERLY INSPECTION CHECKLIST

Date: _____ Time: _____

Weather: _____ Inspected By:

Item	Condition	
DOLBY I LANDFILL	**Ok**	**Not Ok**
COVER SYSTEM		
Erosion, Channeling, Eruptions		
Poor Drainage, Ponding		
Excessive Settling, Crack Development		
Grass Die-off-Failure to Thrive		
Mowing Required		
Germination of Trees, Deep Root Vegetation		
Animal Burrowing		
COLLECTION PONDS		
North End Pond Level (low, medium, or high)		
East End Pond Level (low, medium, or high)		
Vegetative Build-up in Ponds		
ACCESS GATES		
Gates Secured and Working Properly		
DOLBY II LANDFILL		
COVER SYSTEM		
Erosion, Channeling, Eruptions		
Poor Drainage, Ponding		
Excessive Settling, Crack Development		
Grass Die-off-Failure to Thrive		
Mowing Required		
Germination of Trees, Deep Root Vegetation		
Animal Burrowing		
PERIMETER DRAIN CATCH BASINS		
Build-up Sediment in Catch Basins		
Flow Conditions (slow, medium, or fast)		
Catch Basins Intact and Serviceable		
LEACHATE HOLDING POND		
Iron Staining (wooded area east of pond)		
DOLBY III LANDFILL		
COVER SYSTEM		
Erosion, Channeling, Eruptions		
Excessive Settling, Crack Development		
Grass Die-off-Failure to Thrive		
Mowing Required		
Germination of Trees, Deep Root Vegetation		
Poor Drainage, Ponding		
Animal Burrowing		
PERIMETER DRAIN AND CATCH BASINS		
Build-up of Sediment in Catch Basins		
Valves Functioning Properly (free turning)		

1st Quarter 2012

Item	Condition	
LEACHATE COLLECTION POND	**Ok**	**Not OK**
LINER		
Condition of Liner (rips, holes, torn seams)		
LEACHATE PUMP STATION		
Build-up Sediment in Wetwells		
Pumps Functioning Properly (amps, noises)		
Valves Functioning Properly (free turning)		
Flow Conditions (slow, medium, or fast)		
Properly Vented		
Electrical Panel Inspection (corrosion, etc.)		
Flow Meter Inspection		
LEAK DETECTION SYSTEM		
Pump functioning properly (amps, noises)		
Flow Conditions		
Flow Meter Inspection		
Control Panel Inspection		
SITE SEDIMENTATION STRUCTURES		
NORTHWEST SEDIMENTATION BASIN		
Check Outlet Structure for Condition		
Water Level (low, medium, or high)		
WEST SEDIMENTATION BASIN		
Check Outlet Structure for Condition		
Water Level (low, medium, or high)		
SOUTHWEST SEDIMENTATION BASIN		
Check Outlet Structure for Condition		
Water Level (low, medium, or high)		
SITE ROADWAYS		
Check Catch Basins for Build-up of Sediment		
Check Culverts for Blocked Drainage and/or damage (__ total-see plan)		
Check Monitoring Wells for Visual Damage		
TILL BORROW PIT		
STOCKPILES		
Vegetation Condition		
Erosion or Channeling		
SEDIMENT POND		
Pond Level (low, medium, or high)		
Outlet Structure Intact and Functioning		

COMMENTS: _____

_____

_____

_____

ACTION TAKEN: _____

_____

_____

_____

APPENDIX M

ASBESTOS DISPOSAL

HEALTH AND SAFETY PLAN FOR ASBESTOS DISPOSAL AT DOLBY LANDFILL

Introduction

This plan is designed for the protection of persons involved in the disposal of asbestos containing waste material at Dolby Landfill as well as any other persons who could be effected by this disposal activity. It sets standard procedures to be followed when handling asbestos for disposal, establishes security and labeling requirements and specifies air monitoring and medical surveillance requirements. All activities involving the handling of asbestos containing materials at Dolby Landfill will be conducted in compliance with all applicable federal, state and local laws and regulations, including but not limited to the following.

OSHA Asbestos Standards 29 CFR 1910.1001 and 1926.58.

State of Maine DEP Asbestos Abatement Rules, Chapter 136.

State of Maine DEP Solid Waste Management Rules, Chapter 405.

Asbestos NESHAP, 40 CFR 61, Subpart M.

Air Monitoring

Air monitoring will be conducted each time a shipment of asbestos material is unloaded at the landfill. Monitoring will be conducted on the person on the unloading crew with the greatest likelyhood of exposure to asbestos fibers during the unloading activity. If regular monitoring reveals, through statistically reliable measurements, that exposure levels are consistently below the OSHA action level of 0.1 fiber/cc of air during all types of unloading activities, monitoring frequency may be reduced so long as monitoring that is conducted continues to indicate, at the 95 % confidence level, that exposures continue to be less than the action level for the most heavily exposed individual. Air monitoring records will be maintained at the East Millinocket operation's Safety Department for 30 years.

Medical Surveillance

All employees who may be exposed to asbestos at concentrations greater than OSHA's action level or who may be required to wear a respirator during the handling of asbestos material will be provided a medical examination prior to their initial exposure and annually thereafter. The medical examination shall meet all requirements of 29 CFR 1926.58(m) and shall include a medical and work history with emphasis on the pulmonary, cardiovascular and gastrointestinal systems, a questionnaire equivalent to that contained in 29 CFR 1926.58, Appendix D, a physical examination directed to the pulmonary and gastrointestinal systems and any other examinations or tests deemed necessary by the examining physician. A chest X-Ray will be administered as part of the initial examination and at the discretion of the physician thereafter. All medical records will be kept in the East Millinocket operation's Medical Department for 30 years.

Access to Records

Any employee found to be exposed to asbestos fiber concentrations above the OSHA action level will be informed in writing of that finding within 5 days. All other air monitoring records and all medical monitoring records will be provided to the employee or his authorized representative upon request. All requests for access to these records will be made to the East Millinocket operation's Personnel Department.

Personal Protective Equipment

All persons directly handling asbestos containers or performing any activity where monitoring has indicated a potential for airborne asbestos exposure above the OSHA action level shall wear protective equipment including disposable head, body and foot protection and, at minimum, a half facepiece cartridge respirator equipped with high efficiency particulate filters. All persons required to wear a respirator during asbestos disposal activities shall comply with all provisions of the East Millinocket operation's Respiratory Protection Program.

Notification and Approval Procedures

Anyone wishing to dispose of asbestos containing waste at Dolby Landfill must contact the Environmental Department at 723-2278. The Environmental Department will contact the landfill operator to expect a load. The Environmental Department will determine that the material to be disposed of is asbestos containing waste and will issue a permit for disposal of special waste at Dolby Landfill.

Before approving the disposal permit, the Environmental Department representative will assure that any personnel on the transport crew who may be exposed to asbestos fibers above the OSHA action level or required to wear a respirator during asbestos unloading have been medically monitored according to the requirements listed above and have complied with the requirements of the East Millinocket operations Respiratory Protection Program.

Site Security and Maintenance

During the unloading of asbestos waste at the landfill, the landfill operator will assure that all personnel and equipment not directly involved with the unloading activity are kept at least 100 yards back from the disposal area. After each days disposal activity, at least 6 inches of compacted non-asbestos cover will be placed over the waste. Within thirty days of the last placement of waste in the disposal area, it will be covered with at least 18 inches of clay or similar material followed by 6 inches of seeded topsoil.

The disposal location of each load of asbestos waste will be recorded on a plan of the landfill and maintained as part of the operational record. The record will also include, for each load of waste, the quantity and nature of material disposed, the contractor or operation and department generating the waste and notes of any problems or unusual situations encountered with the load. Asbestos waste disposal locations will be marked on all record drawings of the landfill and described on a landfill survey plan. The dates of the asbestos disposal area's operation and closure, the coordinates of the area and the location, composition, extent and depth of asbestos waste deposited shall be recorded in the Registry of Deeds.

A permanent on-site surveying benchmark will be established and maintained at the asbestos waste disposal area. The asbestos disposal area at the landfill shall be permanently identified and posted as an asbestos waste disposal area in compliance with the requirements of State of Maine DEP Solid Waste Management Rules, Chapter 405.4. All access roads to the landfill will also be posted in compliance with the above-cited rule to indicate the presence of an asbestos waste disposal area at the site.

Disposal Procedures

All friable or potentially friable asbestos waste will be transported to the disposal area in double 6 mil poly bags, labeled in compliance with 29 CFR 1926.58(k). The transport container shall be leak-tight and labeled in compliance with 40 CFR 61.152. Non-friable asbestos may be transported without bagging if the transport container is poly lined and the material is adequately wetted and covered with a minimum 6 mil poly cover, secured to prevent the effects of wind or evaporation on the material during transport. Non-friable asbestos shall not be shredded, crushed or subjected to any other form of volume reduction prior to placement in the landfill.

Trucks approaching the asbestos unloading area shall approach as closely as possible before unloading waste. Waste containers shall be lowered to the ground at the disposal area. All containers shall be inspected during unloading, and any damaged containers shall be repacked by the generator in double 6 mil poly. After unloading, the transport container shall be decontaminated by HEPA vacuuming or washing. All protective clothing and poly lining in the container shall be disposed of in compliance with the asbestos disposal requirements of Chapter 405 of DEP's Solid Waste Management Rules.

If airborne asbestos fiber concentrations are found to be greater than 0.1 fiber/cc of air during any disposal activity, an investigation will be conducted involving the disposal crew, the generator of the waste involved, and the Environmental Department. Once the cause of the high levels have been determined and corrected, air monitoring will be conducted on every unloading until it is again determined by statistically reliable measurements that airborne asbestos concentrations are consistantly below 0.1 fiber/cc.

APPENDIX N

LEACHATE ACCOUNTING SHEET

Maine State Planning Office
Waste Disposed of at Dolby Landfill
____ Yearly Total

	EAST MILLINOCKET					MILLINOCKET						OTHER									
Month	WWTP Sludge	RFP Sludge	Wood Yard	Trash	Ash	WWTP Sludge	Trash	Wood Yard	Ash	Woodlands	Liquor Sludge	Andino	Signal Sherman	Oily Waste	Coal Ash	Asbestos	Cover Material	Construction Debris	Gravel	Leachate	Rainfall Landfill
January																					
February																					
March																					
April																					
May																					
June																					
July																					
August																					
September																					
October																					
November																					
December																					
Total Yards																					
Prev yr Total																					
Cumul.																					