



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	)	
RECYCLING/DEINKING PLANT	)	
#L-16637-20-G-N (Approval)	)	FINDINGS OF FACT AND ORDER

Pursuant to the provisions of Title 38 M.R.S.A. Section 481 et seq., the Department of Environmental Protection has considered the application of Great Northern Nekoosa Corporation with its supportive data, staff summary, agency review comments, and other related materials on file and finds the following facts:

1. PROJECT DESCRIPTION:

A. History Of Project: On April 24, 1990, Great Northern Paper Company received conditional approval in Department Order L-16637-A-N for all the improvement projects that have occurred at the East Millinocket Mill since January 1, 1970, for modernization of the wood handling and processing operations at the mill, and for construction of a new warehouse building.

B. Summary: The applicant is proposing to construct a plant at the East Millinocket Mill to repulp and de-ink newspapers and magazines to generate fiber for use in the manufacture of newsprint and other groundwood printing papers. The project will be constructed in two phases. The applicant is seeking approval of both phases of the project at this time.

Phase I will consist of a 66,300 square foot Recycled Fiber Warehouse, a 5,000 square foot Chemical Building, a 26,500 square foot Deinking Building, a 900 square foot Peroxide Tank, a 3,600 square foot Clarifier Enclosure, and a 2,000 square foot HD Storage Chest.

Phase II will consist of a 31,500 square foot addition to the Warehouse, a 9,600 square foot addition to the Deinking Building, a 4,000 square foot Pulper, a 3,600 square foot Clarifier Enclosure, a 1,600 square foot HD storage chest, and a 900 square foot Peroxide Tank.

The proposed project will add approximately 6.6 acres of impervious area to the site.

Work will be done in accordance with plans entitled "Proposed Recycle Plant, Plot Plan and Project Boundary" dated 6/1/90.

The recycling/deinking process consists of the following equipment and systems needed to carry out necessary operations: a pulper, high consistency cleaners, a 3-stage coarse screening system, flotation cells, a 3-stage fine screening system, centrifugal cleaners, washers, and a dispersing system.

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The annual output of the mill will approximate 91,000 Oven Dried Tons (182,000 Oven Dried Tons after Phase II) of recycled fiber which will be entirely consumed at Great Northern Nekoosa's East Millinocket paper mill. About 117,000 Air Dried Tons per year (234,000 ADT/year after Phase II) of wastepaper will be needed to supply this facility. In addition to wastepaper, several chemicals will be used in the process to facilitate the deinking process. These materials are common to the conventional paper making process.

The wastepaper to be recycled will be purchased throughout the New England-New York area and will consist of old newspapers (70 percent) and old magazines (30 percent). This material will be shipped to East Millinocket by both trucks and rail cars. All wastepaper will be unloaded into a warehouse sized to contain a 10-15 day supply. No paper will be stored outside. The warehouse will be attached to the process building; consequently, the wastepaper will not be transported outside once it is received.

2. FINANCIAL CAPACITY:

The total cost of the project is estimated to be \$47,000,000. Great Northern Nekoosa Corporation has submitted the most recent corporate annual report indicating that the company has sufficient funds to finance the project.

3. TECHNICAL ABILITY:

The applicant has provided resume information for key persons involved with the project and a list of projects successfully constructed by the applicant. The applicant retained the services of Rust International, a professional engineering firm, to do the preliminary design work. A qualified engineering firm will be retained to do the detail design and engineering of the project.

4. SOLID WASTE:

When completed, it is anticipated that the recycle/deinking plant will generate 64 tons per day of ink sludge consisting of ink particles, clay and some fiber. This sludge will be disposed of either by incinerating at the East Millinocket bark boiler or landfilling at the Dolby III Landfill. The ash generated in the boiler will be a mixture of ink sludge residuals (primarily clay) and ash generated from the other fuels burned in the boiler. The ash will be disposed of at the Dolby III landfill.

Great Northern Nekoosa has submitted information and Toxicity Characteristic Leaching Procedure (TCLP) analyses from similar deinking plants believed to produce sludge similar to what the new plant will produce. The material produced in these plants does not meet the criteria of hazardous waste, either in its raw form at the clarifier or as ash from the bark boiler.

The Bureau of Solid Waste Management has reviewed the project and requests that the sludge be tested according to the Environmental Protection Agency's new TCLP test. Great Northern Nekoosa will need to submit results from TCLP testing on the wastes before the Department can approve the waste for final disposal at any Maine landfill.

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Great Northern Nekoosa has submitted a sampling and analytical plan for confirmation characterization of the primary deinking sludge. The Bureau of Solid Waste Management has found the plan acceptable provided that characterization is done on a monthly basis for the first three months after the facility becomes operational.

The Bureau of Oil and Hazardous Material Control reviewed this project and stated in its review comments that if the sludge fails the Toxicity Leaching Procedure, that Great Northern Nekoosa will be required to obtain a permit for a hazardous waste surface impoundment.

When completed, the project is anticipated to generate 11 tons per day of general solid waste. All general solid waste generated by the project is to be disposed of at the Dolby landfill.

The project is anticipated to generate 19,000 cubic yards of excess fill. Some of this material may contain bark. The applicant has proposed to separate the bark and burn it in their boiler. The remainder of the fill will be used for onsite grading, disposed of in a spoils area that meets Chapter 404 standards, or disposed of at Dolby III landfill. The applicant has not shown the location of the spoils area on the site plans.

Construction of the project may generate ash contaminated soil. Great Northern Nekoosa obtained a special waste permit (S-0796-7D-P-N) in part to dispose of 300 cubic yards/month of ash-contaminated waste soil at Dolby III landfill. If Great Northern Nekoosa encounters ash-contaminated soil, they will need to submit the sampling and analytical work plan required by the above special waste license to Bureau of Solid Waste Management for its review and approval prior to disposal at Dolby III landfill.

All construction debris generated by the project is to be disposed of at the Dolby landfill. Clean wood generated during construction may be burned at an existing burn area on-site. The Bureau of Solid Waste Management staff has inspected Dolby III landfill and have identified significant operational concerns which they have asked be addressed. Great Northern Nekoosa has submitted to the Bureau of Solid Waste Management a compliance schedule to resolve these concerns at Dolby III landfill. The company has completed a substantial portion of the items. Department staff has reviewed the schedule and find it acceptable.

5. WATER SUPPLY:

When completed, the project is anticipated to use 1000 gallons per day of potable water. Water will be supplied by the East Millinocket Water Works. The applicant has submitted a letter from the East Millinocket Water Works dated June 12, 1990, indicating that they will be capable of servicing this project.

Process water for the project will come from the Penobscot River via an existing screening and filtering plant. The project will use an additional 800,000 gallons of water per day. The current usage by the existing mill

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is approximately 21 million gallons per day.

6. TRAFFIC:

The project is located at the existing paper mill site south of Route 157 (Main Street). Access to the proposed development is via the four entrances that intersect Route 157.

The Maine Department of Transportation (DOT) submitted the following review comments:

1. Sight distances at all affected intersections are adequate.
2. A stop sign should be erected at the North Entrance to the Mill. The stop sign at the Construction Entrance is currently down and should be repaired or replaced.

In response to the Maine Department of Transportation comments, the applicant has erected stop signs at the North Entrance and the Construction Entrance to the mill.

No new interior roads will be constructed for this project.

7. AIR QUALITY:

The Bureau of Air Quality Control reviewed the project and submitted the following comments:

- A. The burning of the sludge resulting from the deinking process has already been addressed in Air Emission License Amendment A-405-71-B-M for Great Northern's East Millinocket facility.
- B. Fugitive dust emissions appear to be sufficiently addressed in that all road surfaces will be paved or treated as needed to prevent dust emissions.

The applicant has stated that the truck dumping facilities will be enclosed and will capture any paper dust that may be generated as waste paper is dumped.

8. NATURAL DRAINAGE WAYS:

The West Branch of the Penobscot River flows along the Southwest property line of the mill site.

The proposed plant site is currently a developed woodyard area consisting of timber lay down areas, paved and gravel surfaces, and some vegetated areas. The topography is relatively flat with stormwater runoff conveyed to the river via a series of culverts and ditches constructed as part of the Woodyard Modernization Project. The majority of the runoff from the woodyard area is routed through an existing sedimentation basin before it discharges to the river.

There will be no effect on abutting properties due to this project. Existing flow patterns will be maintained for the recycled fiber project.

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9. STORMWATER RUNOFF:

The applicant has submitted a stormwater management plan for the site based on estimates of the pre-development and post-development runoff flows for the 2, 10, and 25 year storms using the methodology outlined in "Urban Hydrology for Small Watersheds", Technical Release #55, U.S.D.A., Soil Conservation Service.

This plan has been reviewed and approved by the Bureau of Land Quality Control's Technical Services Unit.

10. EROSION AND SEDIMENTATION CONTROL:

The applicant has submitted an Erosion and Sedimentation Control Plan as Exhibit 20 of the application. This plan and plan sheets containing erosion control details have been reviewed by and revised in response to the comments of, the Bureau of Land Quality Control's Technical Services Unit which has found the revised plans to be in accordance with the Departmental standards for erosion and sediment control.

11. SURFACE AND WATER QUALITY:

The proposed project is not within the watershed of a lake or great pond.

Stormwater runoff is collected in a sedimentation basin and discharged to the West Branch of the Penobscot River. No permit from the Bureau of Water Quality Control is needed.

The applicant has submitted an Erosion and Sedimentation Control Plan. See Finding #10.

Wastewater will be treated by the existing treatment plant before being discharged. See Finding #18.

Chemicals used in the deinking/recycling process have the potential to contaminate surface water. The applicant has not submitted for review and approval a spill prevention, containment, and counter measure (SPCC) plan for the proposed facility nor have detailed plans and material installation specifications for the spill containment facilities been included with the application. The chemical storage building is not scheduled to be constructed until after December 31, 1991.

12. BUFFER STRIPS:

The 410 acre mill property is buffered from abutting property to the east and west by a forest cover on Great Northern Nekoosa property. These undeveloped portions of the site have screened and will continue to screen the mill site from adjacent properties in both directions. The West Branch of the Penobscot River borders the property to the south. The southern bank of the river is undeveloped Great Northern Nekoosa property. To the north, the site is bounded by State Route 157/11 (also Maine Street of East Millinocket). From the main mill entrance easterly to the discontinued contractor gate, there is a green belt containing trees that provide partial screening of the mill site from the road. East of the discontinued contractor gate, the green belt becomes wider, providing almost total screening of mill property. Extending from the main mill entrance to the

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west contractor entrance, there is a narrow green belt with trees broken by several commercial structures which provide limited screening of the mill property. Beyond the contractor entrance there is a wide forested area which effectively screens the mill from the road.

Construction of the recycled fiber plant will not change the existing conditions significantly. Following construction, the undeveloped area will be revegetated with trees.

The applicant will plant 2 to 3 foot tall Red Pine trees along the northern mill property boundary extending over the length of the deinking project site. The trees will be located to avoid the abutting railroad right-of-way and to allow safe operation of the facilities. The applicant has provided a landscaping plan entitled "Proposed Recycle Plant, Landscaping Plan" dated 11/5/90.

13. HISTORIC SITES AND UNUSUAL NATURAL AREAS:

The applicant has submitted a copy of a letter from the Maine Historic Preservation Commission dated March 8, 1990, indicating that this project will have no effect upon any structure or site of historic, architectural, or archaeological significance.

No unusual or natural areas have been identified on the project site. This is based on a review of the Maine Critical Areas Data Base.

14. SCENIC CHARACTER:

No adverse impacts on scenic character have been identified. The project is located on an existing mill site. To minimize the visibility of the project, the applicant will plant Red Pine trees along the northern mill property boundary extending the length of the deinking plant site, as described in Finding #12 of this order.

15. WILDLIFE AND FISHERIES:

The project has been reviewed by the Maine Department of Inland Fisheries and Wildlife (IF&W). No concerns were raised in IF&W's review of the project.

16. SOILS:

A geotechnical investigation of the project site was conducted by S. W. Cole Engineering, Inc. S. W. Cole found 5.5 to 11 feet of fill material overlying native soils. The fill material generally consists of silty sands and sandy silts with gravel, cobbles, some boulders and varying amounts of organic material. Fill within the southerly portion of the site and below the existing paved area appears to be predominantly dense granular soil fill. Organic material, including bark, logs and woodyard debris, was encountered within the fill in explorations made east, north and west of the paved area. The thickness of organic material varied from about 2 to 5 feet at the exploration locations. The underlying native soils consisted primarily of dense glacial till. At several test borings, very stiff clayey silt and dense sandy silt soils were encountered below

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the fill material. Bedrock core samples were obtained at eight test boring locations. The depth to bedrock ranged from 18.7 to 30.1 feet, becoming deeper from east to west. Water levels at the time of exploration generally ranged from depths of about 6 to 12 feet below the ground surface.

S. W. Cole made numerous recommendations on site preparation and construction activities based on soil properties and limitations in their report entitled "Preliminary Geotechnical Engineering Report For: Proposed Recycled Fiber Plant Project, Great Northern Nekoosa Corp., East Millinocket, Maine" dated 6/14/90.

One recommendation made by S. W. Cole was that general site preparation should include removal of all organic fill material from the building sites.

The applicant has agreed to implement all recommendations made by S. W. Cole.

17. GROUNDWATER QUALITY:

The project site is not located on a significant sand and gravel aquifer.

No on site wells are proposed and no wastewater will be disposed of in subsurface disposal systems. Solid waste will be disposed of at the Dolby III landfill.

The storage and use of chemicals in the deinking/repulping process has the potential to contaminate groundwater.

The applicant has not submitted for review and approval a spill prevention, containment, and counter measure plan for the proposed facility nor have detailed plans and material installation specifications for the spill containment facilities been included with the application.

18. WASTEWATER DISPOSAL:

All process and sanitary wastewater from the recycling/deinking process will be treated in Great Northern Nekoosa's on-site wastewater treatment plant. An amended license has been received from the Department authorizing the discharge of the treated waste stream from the treatment plant for the project.

This project has been reviewed by the Bureau of Water Quality Control, which recommended approval.

19. OPEN SPACE:

The applicant has submitted a letter from the Town of East Millinocket, dated June 4, 1990, which indicates that this project as proposed, satisfies all local open space requirements.

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20. NOISE:

A noise study for this project was conducted by Noise Unlimited, Inc.

Noise associated with the operation of the proposed Recycled Fiber Plant will come from the following sources:

- A. Trucks delivering waste paper
- B. Hydraulic truck dumper for unloading waste paper trucks
- C. Loader pushing wastepaper into the Warehouse
- D. Fork lift trucks inside the Warehouse
- E. Ventilation fans on the Warehouse and Process Building
- F. Process equipment such as a disperser, repulping drum, screw conveyor and sludge press inside the Process Building.

Average noise levels outside the Process Building and Warehouse are expected to be 60 dBA and 50 dBA, respectively.

Noise Unlimited, Inc. concluded in its Noise Assessment that the proposed project as designed can be constructed, operated and maintained, in compliance with Maine DEP regulations, East Millinocket noise limits, and EPA guidelines.

21. FLOODING:

The recycled fiber plant will be located on an existing permitted mill site. The structures associated with the recycled fiber plant will be located about 1000 feet from the West Branch of the Penobscot River, well beyond and above the 100 year flood elevation for the river.

BASED on the above findings of fact, the Department makes the following conclusions pursuant to 38 M.R.S.A. Section 481 et seq.:

- A. The applicant has provided adequate evidence of financial capacity and technical ability to develop the project in a manner consistent with state environmental standards.
- B. The applicant has made adequate provision for traffic movement of all types into, out of or within the development area and the traffic increase attributable to the proposed development will not result in unreasonable congestion or unsafe conditions on a road in the vicinity of the proposed development.
- C. 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 other natural resources in East Millinocket and in neighboring municipalities, provided that the applicant plants the Red Pine trees as proposed.

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D. The proposed development will be built on soil types which are suitable to the nature of the undertaking and will not cause unreasonable erosion of soil or sediment nor inhibit the natural transfer of soil, provided that appropriate temporary and permanent erosion control methods are implemented.

E. The proposed development will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur, provided that specific designs for chemical containment structures and an SPCC plan are submitted for review and approval.

F. The applicant has made adequate provision of utilities, including water supplies, sewerage facilities and solid waste disposal, roadways and open space required for the development; and the development will not have an unreasonable adverse effect on the existing or proposed utilities, roadways and open space, provided that solid waste is disposed of as described in finding #4 of this order and wood ash generated by the burning of clean wood construction waste is disposed of at the Dolby III Landfill.

G. The activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties nor create an unreasonable flood hazard to any structure.

H. The activity is not located on adjacent to a sand dune system.

THEREFORE, the Department APPROVES WITH THE ATTACHED CONDITIONS the application of Great Northern Nekoosa Corporation to construct a recycling/deinking plant in East Millinocket, Maine in accordance with the following conditions:

1. The Standard Conditions of Approval, a copy of which is attached.
2. Prior to December 31, 1991, the applicant shall submit an amended SPCC plan that includes the new facilities, engineering detail plans and material/installation specifications for spill containment facilities to the Bureau of Land Quality Control for review and receive the approval of the Commissioner prior to commencement of construction of the chemical storage building.
3. Thirty days after the facility becomes operational, monthly TCLP sampling of the primary deinking sludge shall be performed for a period of three months. Thereafter, quarterly sampling shall occur for a period of nine months. Sampling shall be performed in accordance with the sampling and analytical plan submitted to the Bureau of Solid Waste by the applicant on November 2, 1990. During this sampling period primary deinking sludge shall be placed at Dolby III landfill in known locations such that it could be removed.
4. If the Toxicity Characteristic Leaching Procedure shows that the ink sludge is a hazardous waste, the applicant shall submit to the Bureau of Land Quality Control for review and receive approval of the Commissioner for a new plan to dispose of the waste prior to disposal of any of the material. Any other permits needed from the federal, state, and/or local government for the new disposal plan shall be obtained by the applicant prior to disposal of the waste.

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5. Prior to the disposal of ash contaminated soils at the Dolby III landfill, the applicant shall submit for review and approval to the Bureau of Solid Waste a sampling and analytical plan designed to determine the physical and chemical characteristics of the waste.

If it is determined that the waste cannot be disposed of at the Dolby III landfill, the applicant shall submit a revised waste disposal plan for the ash contaminated soil to the Bureau of Land Quality Control and shall receive approval of the Commissioner for the plan prior to disposal.

6. Prior to disposal of any excavated materials generated during construction of the project using the standards set forth in Chapter 404 of the Solid Waste Management Rules, the applicant shall submit to the Bureau of Land Quality Control for review a plan showing the location of the disposal area and cross-sectional view of the disposal site.

7. Within one year from completion of construction of the deinking facility, the applicant shall plant the screen of trees shown on the landscape plan filed in the Site Location application.

8. In addition to any specific erosion control measures described in Finding 11 of this order, the applicant shall take all necessary actions to ensure that their activities or those of their agents do not result in noticeable erosion of soils on the site during the construction and operation of the project covered by this approval.

DONE AND DATED AT AUGUSTA, MAINE, THIS 10<sup>th</sup> DAY OF Dec., 1990

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Dean C. Marriott  
DEAN C. MARRIOTT, COMMISSIONER

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

Date Of Initial Receipt of Application 7/11/90

Date Of Application Acceptance 8/3/90

Date Filed with Board of Environmental Protection \_\_\_\_\_

REINK:AC