

6-27-76

STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
AUGUSTA, MAINE 04330



BOARD ORDER  
IN THE MATTER OF

STATLER INDUSTRIES INCORPORATED ) Site Location and Solid Waste Management Order  
Augusta, Maine, Kennebec County )  
PAPER MILL SLUDGE DISPOSAL SITE )  
#00-4892-11020 ) FINDINGS OF FACT AND ORDER

After reviewing the project file which includes the application with its supportive data, agency review comments, comments from the public, staff summary and investigation, public hearing transcript and other related materials on file with regard to the above noted project, under provisions of Title 38, M.R.S.A. Sec. 483 and the Solid Waste Management Act, Title 38, M.R.S.A. Sec. 1301, et. seq. and the Solid Waste Management Regulations, Chapter IV, the Board finds the following facts:

1. Nature of Project: The applicant, Statler Industries, Inc., proposes to develop approximately 60 acres for use as a paper mill sludge disposal site off Churchill Road in Augusta. The site is to be developed in 5 phases. The first phase will include approximately 20 acres. The estimated life of the initial phase is 12 years. The total life of the site is estimated to be 33 years. Leachate will be contained and pumped to the sewage treatment plant of the Augusta Sanitary District for treatment.
2. The estimated construction cost of the project is \$538,000.
3. A letter from the First National Bank of Boston states that the applicant's financial condition is more than adequate to cover an expenditure of \$500,000.
4. As a paper making industry, the applicant has a staff of engineers and technicians. Certain of these individuals will be in responsive charge of routine operation of the landfill, and are qualified to be in responsive charge. The applicant employed the services of professional engineers and geologists in the site investigation and design of this project. These individuals are qualified to perform these tasks.
5. The operation of a sludge disposal site does not in itself generate any solid waste.
6. Rapid and thorough drainage of paper mill sludge will reduce the possibility of odor.
7. The proposed dewatering system does not represent the best available or practical design in that rapid drainage is not provided, presenting the possibility of the creation of odor.
8. The operation of a sludge disposal site does not require a water supply.
9. Access to the site will be via Churchill Road, an 18 foot wide, paved State Aid road.
10. Interior roads will be 16 feet wide, gravel travel ways.
11. An unnamed stream flows through the site.
12. The unnamed stream contains no fisheries.

13. The applicant has applied to the Maine Department of Inland Fisheries and Wildlife for a permit to divert the unnamed stream around the proposed site.
14. The proposed site contains no critical wildlife habitat.
15. The applicant has not submitted a program to monitor the performance of the landfill.
16. The consolidation and rate of consolidation of the landfilled sludge, the volume and rate of flow of leachate in the leachate collection and transport system, the consolidation and stability of the sludge retaining structures, and integrity of the leachate collection and transport system are critical elements in the performance of this site.
17. An alarm is proposed to signal an overload of the leachate transport pumping system.
18. The proposed alarm will be heard in the immediate vicinity of the pump station.
19. No full time attendant will be present at the landfill.
20. The applicant has not submitted contingency plans to prevent flooding of Riggs Brook and its tributary which flows from the site during operation of Phase V. It is possible although unlikely, that leachate and precipitation may overflow the retaining dam during periods of unusually heavy precipitation during a late stage of operation of the Phase V section.
21. The applicant has not submitted a complete earthquake stability analysis of the retaining structures.
22. Granular soils used in six inch intermediate layers in the retaining dam will allow passage of fine grained sediment from the dam core, if the texture of these granular soils is in the coarse end of the proposed textural range specifications.
23. The site consists of a partially eroded glaciomarine silt/clay sediment plain.
24. A gully eroded by an unnamed tributary to Riggs Brook has exposed glaciomarine sediments, glacial till and granitic bedrock.
25. Glaciomarine silt/clay sediments in excess of 12 feet are present under most of the site.
26. Glacial till and granitic bedrock is exposed in a small area in the eastern end of the site.
27. The applicant has not shown for an area within 1000 feet of the site all municipal and private supplies of potable surface and ground water; all commercial-industrial water supplies; all springs and seeps; existing zoning; for wells in this area, where known, depth to bedrock, static water level, yield and total depth; seasonal variations of water tables in dug wells; all buildings; all surface bodies of water; all gravel pits, stone quarries, mines, as required by Chapter 400, Section 11 C of the Department of Environmental Protection Solid Waste Management Regulations (DEP SWMR).

28. The applicant has not submitted information from state or federal agencies regarding hydrologic, geologic, and soils information nor indicated whether such information exists, as required by Chapter 400 Section 11 D of the DEP SWMR.
29. The applicant has submitted a 1" = 100' or less scale map showing legal boundaries of the site; areas where sludge is to be placed; locations of borings and test pits; boring and test pit logs indicating surficial units; depth to ground water; depth to bedrock as required by Chapter 400 Section 11 E of the DEP SWMR.
30. The applicant has presented plans of the site showing it as it presently exists; as it will appear at the time it is closed; and other proposed features, as required by Chapter 400, Section 12 A of the DEP SWMR.
31. The applicant has not provided for adequate drainage of the sludge for proper close out and reclamation of the site.
32. The applicant has presented plans detailing the area where refuse is to be placed; property boundaries; access roads; phases of operation; location of test pits, wells or borings; proposed drainage systems; 2 ft. contours as required by Chapter 400 Section 12 B of the DEP SWMR.
33. The applicant has presented plans showing for 300 feet outside the site all occupied dwellings; public water supplies; all private wells; all surface bodies of water; all existing roads; power lines; pipelines; public buildings; sand and gravel pits; proposed boundary fencing and accesses; leachate collection and treatment facilities, as required by Chapter 400 Section 12 C of the DEP SWMR.
34. The applicant has not adequately addressed the surface drainage of the closed site and drainage of the base of the landfill, as required by Section 12 A of the MDEP SWMR. The final grading plan contains no provisions for runoff channeling, and surface erosion of the cover soil may occur which will expose and erode sludge.
35. The upper zone of the soil surface which will be used to transmit leachate to the sand finger drains of the leachate collection system consists primarily of silt and clay. Granular material is not present in sufficient abundance and pre-dominance. This upper zone will be compressed by the weight of overlying sludge, and its permeability will be retarded. The movement of leachate toward the collection system will be adversely affected.
36. The applicant has presented plans showing bedrock surface; seasonal high water table; water drainage; existing land surface; base grade; proposed lifts; proposed cover; final grade; final elevation, as required by Chapter 400 Section 12 D of the DEP SWMR.
37. The applicant has not submitted an adequate operating manual as required by Chapter 400 Section 13 V of the DEP SWMR.
38. The applicant has not made adequate provision for reporting the results of experimentation with various sludge handling and placement techniques.
39. The applicant has not made adequate provision for monitoring surface and ground water in the vicinity of the proposed facility.

applicant submitted revised design plans at the May 24, 1979 continuation of the public hearing. Several revisions to the original plans were described at that time. Other revisions were not described. These revisions are:

- a) a gate valve is added in the cleanout manhole;
- b) a road is added leading to the force main terminous manhole;
- c) at least two manholes are added in the landfill area;
- d) the leachate pipe from the Phase I dam to the lift station is changed to high density polyethelyne;
- e) a 12 inch granular base is added under the valve manhole in section 3;
- f) the pump control panel is modified;
- g) the location of the 12 inch leachate influent pipe in the pump station is changed;
- h) modified adaptors to pipe in clean out manhole;
- i) deleted handwheel gate valve and two inch sampling point in the terminous manhole, and added a key turn gate valve and changed the orientation of the tank truck connection;
- j) deleted a gate valve on the 4 inch stub out pipe at terminus manhole;

The purpose of these modifications is unclear, although the modifications are not substantial elements in the success of the facility's design and operation.

41. The applicant has not proposed a construction and material quality control program. It is unknown whether the design engineer will supervise construction, and whether normally routine tests of the leachate transport system will be performed.
42. Construction specifications have not been provided by the applicant.
43. The material to be landfilled at this site is solid waste, as defined by the Maine Department of Environmental Protection Solid Waste Management Regulations, and it is not fluid hazardous waste, as defined by Title 38, Maine Revised Statutes Annotated, section 1320 et. seq. The material is not free flowing.

Based on the above Findings of Fact, the Board concludes that:

1. The applicant has provided adequate evidence of financial capacity and technical ability to meet air and water pollution control standards.
2. The applicant has made adequate provisions for solid waste disposal, the control of offensive odors, and the securing and maintenance of sufficient and healthful water supplies, provided rapid and thorough drainage of the paper mill sludge is accomplished.
3. The applicant has made adequate provisions for traffic movement of all types out of and into the development area.
4. The applicant has made adequate provisions 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 provisions are made for landfill performance monitoring; increased consolidation of sludge, revisions in leachate alarm methods; contingency plans to prevent flooding; earthquake stability analysis of the retaining structure and the establishment of a quality control program.

5. The proposed development will be built on soil types which are suitable to the nature of the undertaking provided sand drainage blankets are provided to conduct the leachate to the collection system, and provided that an adequate thickness of compacted silt/clay sediment is placed over exposed areas of bedrock and glacial till.
6. The applicant has complied with Chapter 400 Section 12 A (Design Information) of the MDEP SWMR, provided that it submit revised design plans regarding surface drainage of the closed landfill, and drainage of the base of the landfill.
7. The applicant has complied with Chapter 400 Section 12 B (Detailed Site Maps and Plan) of the MDEP SWMR, in that it has submitted detailed design plans on the items required by this section.
8. The applicant has complied with Chapter 400 Section 12 C (Additional Design Map Information) of the MDEP SWMR provided that it describe the items modified in its revised design plans which were not described at the Public Hearing.
9. The applicant has complied with Chapter 400 Section 12 D (Cross Sections) of the MDEP SWMR, in that it has submitted cross sections depicting the items required in this section.
10. The applicant has not complied with Chapter 400 Section 11 C (Site Map) of the MDEP SWMR, in that many items required under this section have not been identified. However, dwellings and water supplies in areas greater than 300 feet from the landfill have been identified in the public hearing and staff investigations.
11. The applicant has not complied with Chapter 400 Section 11 D (Hydrologic, Geologic, and Soils Information) of the MDEP SWMR, in that it has submitted no information from state or federal agencies regarding hydrologic, geologic and soils information, nor indicated whether such information exists. However, consideration of this information is insignificant, due to the thorough analysis performed by the applicant, except that information on the areal extent and hydrologic properties of the bedrock is needed.
12. The applicant has complied with Chapter 400 Section 11 E of the MDEP SWMR (Boring or Test Pit Logs and Map), in that it has submitted the information required by this section.
13. The applicant has not complied fully with Chapter 400 Section 13 V of DEP SWMR, in that a complete description of the operation of the facility is not provided.

However, the Board approves the application of Statler Industries, Inc. to operate a sludge disposal site in Augusta subject to the following conditions:

1. The Standard Conditions of Approval, a copy attached.
2. The applicant shall submit a ground and surface water quality monitoring program for review and approval by the Department prior to operation of the facility. This program shall include measures to monitor ground water contained in bedrock, in soils at various depths, and surface waters in Riggs Brook, tributaries to Riggs Brook, site runoff, and leachate which is collected for treatment.

3. The applicant shall submit a landfill performance monitoring program for review and approval by the Board prior to operation of the facility. This program shall include measures to monitor consolidation and rate of consolidation of the land-filled sludge, volume and rate of flow of leachate in the leachate collection and transport system, consolidation and stability of the sludge retaining structures, integrity of the leachate collection and transport system, and volume and rate of flow of site runoff.
4. The applicant shall submit for review and approval by the Board prior to operation of the facility a contingency plan to prevent flooding of Riggs Brook, and its tributary which flows from the site, during operation of Phase V of the facility.
5. The applicant shall present for review and approval of the Dept. prior to construction of the main retaining dam a complete earthquake stability analysis of the facility.
6. The applicant shall submit for review and approval by the Board within 30 days, and in no case after initiation of operation revised design plans and specifications which, when implemented, will increase the amount and rate of consolidation of the sludge in the landfill. Such plans may include the use of basal and interior sand drainage blankets.
7. The applicant shall install the leachate pump station alarm such that the alarm signal is telemetered to the applicant's office in Augusta, where individuals capable of responding to the alarm shall be present 24 hours per day.
8. The applicant shall submit a full report to the Board on its investigations with the various sludge landfill placement and handling techniques identified in its application. This report shall be presented to the Department no later than 12 months after operation of the site begins. The applicant shall consult with the staff of the Department's Division of Solid Waste Management during the investigative program and preparation of the report.
9. The applicant shall submit for review and approval by the Dept. a site operation manual. This manual shall be submitted no later than 13 months after operation of the site begins. This manual shall include items required in Section 13 V of the Maine Department of Environmental Protection Revised Solid Waste Management Regulations, and other items pertinent to the nature of this facility.
10. The applicant shall submit for review and approval to the Board detailed construction plans and specifications for Phases II, III, IV, and V. These plans and specifications shall be submitted prior to placement of sludge in these areas. These plans shall include plans to cover exposed areas of bedrock and glacial till with compacted silt/clay sediment.
11. In the construction of the main retaining dam, the applicant shall ensure that soils used in construction of the intermediate six inch drainage layers will not be too coarse to allow passage of grains from the fine grained sediments used in the construction of the dam and its core. Textural analyses of soils to be used shall be presented for review and approval by the Dept. prior to construction of the main retaining dam embankment.

12. The applicant shall submit for review and approval to the Dept. prior to construction a comprehensive construction monitoring and quality control program.
13. The applicant shall submit for review and approval to the Department prior to installation an explanation of the items identified in Finding of Fact #40 of this Order. These items are modifications in the design of the facility, and have not been explained.
14. The applicant shall submit for review and approval to the Dept. prior to any construction work other than construction of the access road, land clearing and grubbing activities, construction specifications provided to the contractor or contractors engaged to construct all or parts of the facility. These specifications shall include leachate collection and transport system integrity testing.
15. The applicant shall submit for review to the Department prior to operation all available information from State and Federal agencies on the nature and hydrologic properties of the bedrock in the region of the facility.

DONE AND DATED AT AUGUSTA, MAINE, THIS 27TH DAY OF JUNE, 1979.

BOARD OF ENVIRONMENTAL PROTECTION

BY: *David E. Judas* Deputy Acting  
for Henry E. Warren Chairman

PLEASE NOTE ATTACHED SHEET FOR APPEAL PROCEDURES....