

VERMONT ENVIRONMENTAL BOARD
10 V.S.A., Chapter 151

RE: Town of Sunderland by Findings of Fact and
Robert E. Woolmington, Esq. Conclusions of Law
Witten & Carter, P.C. and Order
P.O. Box 620 Declaratory Ruling #200
Bennington, VT 05201

This decision pertains to a petition for declaratory ruling filed with the Environmental Board by the Town of Sunderland on November 6, 1987, concerning whether the placement of ash in the Sunderland landfill or the construction of a liner and **leachate** collection system constitute a material change in landfill operations so that a permit amendment must be obtained by Vicon Recovery Systems, Inc., the owner of the landfill. This decision also includes an appeal of Land Use Permit Amendment #8B0301-2 issued by the District #8 Environmental Coordinator on September 23, 1987 in accordance with Board Rule 34(D). That amendment was an administrative amendment incorporating the Disposal Facility Certification Modification issued on April 18, 1985 by the Agency of Environmental Conservation (now Agency of Natural Resources). The 1985 Certification allowed Vicon to dispose of ash from its **Rutland** incinerator in the Sunderland landfill. This decision also pertains to a request by the Bennington County Regional Commission for a declaratory ruling concerning whether an amendment is required for certain physical activities that took place at the landfill which included expansion of the landfill beyond the approved construction area and encroachment onto a floodplain and wetland.

On December 1, 1987, a prehearing conference was convened by Acting Chair Jan S. Eastman, and a Prehearing Conference Report and Order which included preliminary party status decisions was issued on December 8. In response to a number of preliminary issues raised by the parties, the Board issued a Proposal for Decision on December 30. On January 12, 1988 the Board convened a public hearing and heard oral argument from the parties regarding its Proposal for Decision. On January 27, the Board issued a Memorandum of Decision. On February 3 the Board issued a Revised Memorandum of Decision which is incorporated herein. On February 16 and April 6 the Board convened a public hearing with the following parties participating:

Town of Sunderland (Town) by Robert E. Woolmington,
Esq.
Vicon Recovery Systems, Inc. (**Vicon**) by Edward V.
Schwiebert, Esq.

State of Vermont, Agency of Natural Resources (Agency)
by Stephen B. Sease, Esq.
Bennington County Regional Planning Commission
(Regional Commission) by Gregory Burke
Jane Mitchell (conditionally) and Mr. and Mrs. Leigh
Perkins (conditionally) by Thomas D. Wall, Esq.

The hearing was recessed on April 6 pending the submission of proposed findings of fact and conclusions of law by the parties and review of the record and deliberation by the Board. On April 28 the Board received Proposed Findings from the Town, the Agency, and Vicon. The Board conducted deliberations on May 3 and May 26. On June 7 the Board completed its review of the record, declared the record complete and adjourned the hearing. This matter is now ready for decision. The following findings of fact and conclusions of law are based exclusively upon the record developed at the hearing. To the extent the Board agreed, with and found necessary any findings proposed by the parties, they have been incorporated herein; otherwise, said requests to find are hereby denied.

I. ISSUES IN THE DECLARATORY RULING

A. Background

On March 30, 1983, the District #8 Environmental Commission issued Land Use Permit #8B0301 for the so-called Sunderland landfill. The permit incorporated the conditions of the Disposal Facility Certification issued by the Agency on March 21, 1983. Condition #1 of the permit states that "[n]o changes shall be made in the project without the written approval of the District Environmental Commission." Condition #5 of the Permit states:

Any proposed revisions to the State certification shall also be submitted to the District Environmental Commission for its review, possible modification and approval prior to being incorporated into this permit. A public hearing may be called at the discretion of the commission for review of such proposed amendments.

On April 18, 1985, the Agency issued a Disposal Facility Certification Modification (1985 Certification) authorizing the disposal in the landfill of ash or residue from **Vicon's Rutland** Resources Recovery Facility.

On or about January 29, 1987, a request for an advisory opinion regarding the need for Vicon to obtain an amendment to dispose of ash in the landfill was filed with the

District #8 Environmental Coordinator. On July 7, the Coordinator issued Advisory Opinion #8-052, in which he stated that the disposal of ash in the Sunderland landfill did not constitute a material or substantial change and that the permit need only be amended administratively to incorporate the 1985 Certification, pursuant to Board Rule 34(D). A copy of Advisory Opinion #8-052 was provided to the Town but not to the Regional Commission. No one appealed the advisory opinion. On September 23, 1987, the District Commission amended Land Use Permit #8B0301-2, incorporating the 1985 Certification. Copies of amended Land Use Permit #8B0301-2 were not provided to statutory parties and Land Use Permit #8B0301-2 was not appealed.

By letter dated November 16, 1987, the Regional Commission requested the Coordinator to review activities that had taken place at the Sunderland landfill to determine whether Vicon should obtain a permit amendment. These alleged activities included installation of the liner and **leachate** collection system, expansion of the landfill beyond the approved construction area, and encroachment onto a floodplain and wetland. The Board decided to address the question of whether these activities constitute changes to the permitted project that require a permit amendment as part of these proceedings.

B. Substantive Issues

The Town believes that Vicon needs to obtain a permit amendment from the District Commission. The Town claims that construction of a liner and **leachate** collection system are activities that constitute a "material change" as defined by Board Rule 2(P). The Town also believes that the administrative amendment issued by the District Commission in September, 1987, to allow Vicon to dispose of ash in the landfill was not proper because it went beyond "record-keeping" and raised the likelihood of significant impacts under criteria 1, 4, 5 and 8(a) of Act 250. The Town believes that the District Commission should therefore hold a hearing to review the impacts.

The Regional Commission believes Vicon needs to obtain a permit amendment for the significant changes that have occurred at the landfill, including expansion of the boundaries of the approved construction area, encroachment onto the floodplain and wetland, disposal of ash, and installation of a liner and **leachate** collection system.

Certain area property owners believe that Vicon needs to obtain a permit amendment to dispose of ash and to install a liner and **leachate** collection system.

In its Memorandum of Decision dated February 3, 1988, the Board identified the issues to be addressed as follows:

1. Whether the disposal of ash at the landfill constitutes a material change so that an amendment is required.
2. Whether the installation of the liner and **leachate** collection system constitute a material change so that an Act 250 permit amendment is required.
3. Whether the amendment issued by the District Commission on September 27, 1987 authorizing Vicon to dispose ash at the landfill was properly treated as an "administrative amendment" pursuant to Rule 34(D).
4. Whether the alleged expansion of the landfill beyond the approved construction area and the encroachment into a floodplain and a wetland go beyond the activities authorized by the Permit so that an amendment is required.

C. Party Status

Requests for party status were made by Vermont Railway, Emeline C. Wright, and the Sunderland Zoning Board. The Coalition to Save the Batten Kill, consisting of the Batten Kill Conservancy and individuals, sought party status pursuant to Rule 14(B) under Criteria **1(water pollution)**, 3, 4, 5, 7, **8(aesthetics)**, 8(a), and 9. Vermonters Organized for Clean-up sought party status pursuant to Rule 14(B) under Criteria 1(B), 3, 4, **8(aesthetics)**, and 8(a). Trout Unlimited requested party status pursuant to Rule 14(B) with respect to Criteria 1, 4, and 8(a). The following persons sought party status as adjoining property owners through Tom Wall, Esq.: Mr. and Mrs. Leigh Perkins, Jane Mitchell, Laura Jean Harwood, Gerald and Anne Wilcox with respect to Criteria 1, 2, 4, 5, 7, **8(aesthetics)**, and 8(a). Gerald and Anne Wilcox also sought party status on Criteria **1(air pollution)** and 9(B).

Vicon objected to the party status of the Coalition, Trout Unlimited, the Zoning Board, Vermont Railway, and all the neighbors represented by Tom Wall. The Acting Chair granted party status to all the adjoining property owners represented by Mr. Wall, the Coalition, and Trout Unlimited on a preliminary basis pursuant to Rule 14(B). In its

February 3 Memorandum of Decision, the Board reversed the Acting Chair's rulings and limited party status to Vicon, the Town, the Agency, and the Regional Commission.

On February 4, the Board received a letter from Trout Unlimited requesting reconsideration of the denial of party status and on February 10, the Board received an objection from Mr. Wall to the denial of party status to the Coalition and the area property owners.

At the February 16 hearing, the Board reconsidered its rulings and granted party status to Jane Mitchell and Mr. and Mrs. Leigh Perkins as adjoining property owners on Criterion 1(B) pending the submission of evidence that their lands would be directly affected by the flow of runoff from the Vicon site through a culvert onto their lands. The Coalition, VOC, and Trout Unlimited were denied party status but the Board ruled that if it needs more information after hearing the testimony of the other parties, it will reconsider granting party status to Trout Unlimited. The Board has reviewed these party status decisions and determined that as no additional evidence is needed from Trout Unlimited and no evidence was submitted showing a direct effect on land owned by Ms. Mitchell or the Perkins, the Board will deny them party status.

II. FINDINGS OF FACT

1. In 1983, Vicon purchased 25 acres of land including a **14-acre** sanitary landfill in the Town of Sunderland. The landfill is subject to Land Use Permit #**8B0301**, issued on March 30, 1983. The Board takes official notice of Land Use Permit #**8B0301** including the findings of fact and conclusions of law.

2. Condition #1 of Land Use Permit #**8B0301** states the following:

The project shall be completed as set forth in Findings of Fact and Conclusions of Law **8B0301**, in accordance with the plans and exhibits stamped "Approved" and on file with the District Environmental Commission, and in accordance with the conditions of this permit. No changes shall be made in the project without the written approval of the District Environmental Commission.

3. The landfill received a Facility Certification from the Agency on March 30, 1983, which was modified on April 18, 1985, to allow the disposal of ash in the landfill

from **Vicon's Rutland** Resource Recovery Facility. Vicon submitted the 1985 Certification to the District #8 Environmental Commission on April 30, 1987.

4. On July 7, 1987, the District #8 Environmental Coordinator issued Advisory Opinion #8-052 which stated that Vicon did not need to obtain an amendment to dispose of ash in the landfill. The Regional Commission was not provided a copy of the Advisory Opinion.
5. On September 23, 1987, the District #8 Environmental Coordinator issued Amended Land Use Permit #8B0301-2 as an administrative amendment. This amendment incorporated the 1985 Certification. Neither the Town of Sunderland nor the Regional Commission received notice of this amendment.
6. The landfill, which is certified for 51,000 cubic yards of solid waste and cover material, accepts municipal solid waste. The landfill is operated in eight cells; each cell is excavated to an elevation of 660 feet. After excavation of a cell, solid waste is dumped into the landfill, compacted with heavy equipment, and covered on a daily basis with six inches of material which is compacted. As each section of a cell is filled, 12 inches of intermediate cover is placed on it and, when completed, another 18 inches of cover material is placed on top.
7. The waste is trucked to the site. The number of truck round trips average 12 per day.
8. The landfill is approximately 300 feet from the Batten Kill. River Road runs between the landfill and the river.
9. Vicon plans to bring ash from its incinerator in **Rutland** and dispose of it in a lined portion of the landfill. One four-acre cell would be used for the placement of a liner that would hold the ash. The cell would be cleared, grubbed, stripped, and excavated to a depth ranging from 660 feet to 667 feet in elevation. A sloping bottom would be created to allow drainage and collection of **leachate** in the liner system.
- 10; The cell is designed for a four-year life. Once the cell is capped and closed no further **leachate** would be generated.

11. Incinerators generate ash by combusting solid waste. Two types of ash are produced: bottom ash, comprised of heavy particulate solids collected at the bottom of furnaces, and fly ash, light particulate solids removed from the incinerator flue gases. These are mixed together before disposal.
12. Incineration of garbage and refuse reduces the volume by 65-70%. The ash contains a concentration of metals, particularly lead and cadmium.
13. Under proposed federal and some state guidelines, ash is considered a "special waste" instead of a typical solid waste, and therefore managed differently.
14. **Vicon** intends to transport the ash from its incinerator in **Rutland** to the landfill in sealed 42-cubic yard trucks. The trucks will operate within state load limits.
15. The ash will contain approximately 25 to 30 percent water by weight when it is taken to the landfill. The liquid in the ash (quench water) results from the quenching of the ash in an acid neutralizing sodium hydroxide bath at the incinerator. The liquid waste mixed with the ash will annually contain more than 250,000 pounds of sodium chloride, more than 400,000 pounds of sodium sulfate, and more than one million pounds of sodium nitrate.
16. At the landfill, the quench water will mix with precipitation to form leachate. Approximately 2,500 gallons per day of **leachate** on an annual average will be generated from the ash. The amount of **leachate** will vary depending upon the amount of precipitation and the degree to which each cell has been filled.
17. After the area is excavated, the installation of the liner will involve grading and rolling of soils to form a smooth bed for the liner and placing the 40 mil polyvinyl chloride (PVC) liner, consisting of sheets cut to the width of the area and welded. The liner will be inspected for defects and patched and sealed as necessary. A layer of coarse sand material will be placed over the liner, along with a leak detection system that will be monitored daily. A 60 mil **high-density polyethylene (HDPE)** liner will be placed on top of the leak detection system. The 32 inch wide HDPE panels will be welded together, inspected, and sealed as necessary. Eighteen inches of sand will be placed over the **HDPE** liner. These sand layers are not required in a municipal solid waste landfill.

18. A piping system to collect the **leachate** will be placed within the sand. The pipes will convey the **leachate** to two 6,000 gallon epoxy coated, precast concrete tanks which are contained within a 60 mil HPDE liner with a leak detection system.
19. It is possible that either or both of the liners will develop a leak. If a leak occurred in the upper liner, it would be discovered through the leak detection system. If a leak occurred in the lower liner it would be discovered through the monitoring wells placed around the site. If a leak occurred, that portion of the cell, or the entire cell, could be capped and covered so that no more **leachate** would be generated.
20. The **leachate** will periodically be pumped into 6,000 gallon tank trucks for removal from the site. The trucks will enter the site from a previously unused access road off of River Road. To enter the landfill to collect the leachate, tank trucks must stop at a railroad crossing on a curve on River Road.
21. The tank trucks will transport the **leachate** to a waste treatment facility in another state. Vicon does not have a contract for **leachate** disposal. No waste treatment facility in Vermont is currently certified to accept this leachate.
22. The lined area around the **leachate** storage tanks has been designed to provide temporary storage for over 325,060 gallons which might be necessary in the event of a large rainfall. Six inches of rain in 24 hours, the maximum expected in 24 hours once every hundred years, would produce a maximum of 240,000 gallons of leachate.
23. A sedimentation pond and 3.5 foot sand berm to retain rainfall will be constructed on the side of the cell toward the Batten Kill. The pond must be routinely maintained to remove accumulated sediment so that it will not become ineffective and allow sediment to be washed into the Batten Kill. Good ground cover must also be maintained to prevent severe erosion.
24. In the fall of 1987, Vicon commenced construction of a liner and **leachate** collection system for disposing of ash in the landfill. Vicon stripped, grubbed, and excavated the site; expanded the excavated area onto the floodplain and wetland, beyond the limits established in Land Use Permit #8B0301; and removed a berm and line of trees that previously screened the landfill from River Road and that were required to be

left in place by Land Use Permit #8B0301. At least two monitoring wells were buried by the construction activity. Vicon did not apply for an amendment before undertaking these activities.

25. During construction in the fall of 1987, Vicon installed erosion control measures. During rains on November 30 and December 1, 1987, surface runoff from the site overwhelmed the erosion control barriers, and sediment and water were discharged into the Batten Kill. A brown plume of sediment ran down the river.
26. River Road in the area of the landfill lies within the floodplain of the Batten Kill and has flooded over and become inaccessible during periods of high water. In August, 1976, the Batten Kill rose above the junction of the proposed access road and River Road, leaving River Road impassable for several days. In 1976, the Batten Kill rose above the 100-year flood line.
27. During the week of March 28, 1988, Vicon's erosion control barriers were submerged under standing water.

III. CONCLUSIONS OF LAW

Board Rule 34 requires an amendment for any substantial or material change to a project subject to an Act 250 permit. Rule 2(G) defines substantial change as "any change in a development or subdivision which may result in significant impact with respect to any of the criteria specified in 10 V.S.A. § 6086(a) (1) through (a) (10)," and Rule 2(P) defines material change as "any alteration to a project which has a significant impact on any finding, conclusion, term or condition of the project's permit and which affects one or more values sought to be protected by the Act." Rule 34(D) provides:

A district commission may authorize a coordinator to amend a permit without notice or hearing when an amendment is necessary solely for record-keeping purposes and raises no likelihood of impacts under the criteria of the Act. In particular, administrative amendments are authorized to transfer a previously unrecorded permit to a new landowner, or to incorporate a revision in a certification of compliance when such revisions do not have any impact on the criteria of the Act.

When Vicon purchased the Sunderland landfill in 1983, it was subject to Land Use Permit #8B0301. That permit authorized the operation of a sanitary landfill on 14 acres. The authorization was based upon the premise that the landfill would only accept municipal solid waste.

Vicon now proposes to dispose of incinerator ash in the landfill and to install a liner and **leachate** collection system. Vicon began installation of the liner and **leachate** collection system in the fall of 1987. In September, 1987, the District Coordinator issued an administrative amendment authorizing the disposal of ash. This amendment did not address the installation of a liner and **leachate** collection system.

The conditions and findings of fact of the permit emphasized that operation of the landfill in strict conformance with the permit, the findings of fact, and the plans presented to the Commission by the Applicant would be essential to ensure compliance with the 10 criteria of 10 V.S.A. § 6086(a). Condition #1 includes the requirement that the Applicant obtain written approval from the District Commission before making any changes to the landfill.

In a declaratory ruling proceeding, the Board is not required to determine whether a project will comply with the ten criteria of 10 V.S.A. § 6086(a). It need only decide whether an activity will result in a substantial or material change to the project. A determination of whether an activity will be a "substantial change" to a project involves a two-step process. First, the Board must find that a physical change will take place, and second, the Board must find that such change may result in significant impact with respect to any of the criteria specified in the ten criteria. See In re H.A. Manosh Corporation, 147 Vt. 367 (1986). A determination of whether an **activity will** result in a "material change" to a project also involves a two-step process. First, the Board must find that an "alteration" will take **place**. This alteration need not be a physical change, but could simply involve a change in use. See In re Greg Gallagher, No. 87-172 (Vt. S. Ct. May 27, 1988). The Board must then find that such change "has a significant impact on any finding, conclusion, term or condition of the project's permit and which affects one or more values sought to be protected by the Act." Board Rule **2(P)**.

The Board concludes that Vicon must obtain an Act 250 permit amendment for the following reasons:

1. An administrative amendment was not appropriate for incorporation of the 1985 certification from the Agency allowing ash disposal in the landfill. Such an amendment was clearly not for the purposes of "record-keeping" and the

The clearing and excavation of the site, including removal of the berm and the trees, were significant changes that caused additional impacts. Among these were soil erosion, discharge of silt to the Batten Kill, and exposure of the landfill to sight from River Road. A permit amendment should have been obtained before any of these activities were undertaken that caused changes to the project as permitted.

The Board arrived at the conclusion that Vicon must obtain a permit amendment with some reluctance. The need to address the problem of waste disposal in Vermont, as well as throughout the country, is critical. Incineration may be the best solution and the Board does not wish to obstruct those who are working toward finding solutions. The Board believes that the net environmental benefit which lined landfills and treated leachates will provide to Vermont requires that environmental regulation be applied with reason and broad perspective. The efforts of private and public entities to solve the problems inherent in the safe, disposal of municipal solid wastes must be supported. The decision that Vicon needs to obtain an amendment is based upon the facts and circumstances specific to the Sunderland landfill, and the current requirements of Act 250. It does not necessarily mean that the installation of liners in every municipal solid waste landfill in the state will require an Act 250 permit amendment or that clarification of the state review process of such activities is not appropriate.

IV. ORDER

On or before July 24, 1988 Vicon must apply for an amendment to Land Use Permit #8B0301 for the project as currently proposed to install a liner and **leachate** collection system in the Sunderland landfill and to dispose of incineration ash therein.



Jan S. Eastman, Acting Chairman
Lawrence Bruce, Jr.
Arthur Gibb
Samuel Lloyd
Roger N. Miller