

**STATE OF VERMONT
Natural Resources Board
DISTRICT ENVIRONMENTAL COMMISSION #1**

RE: OMYA, Inc.
P.O. Box 10
Florence, VT 05744

**Application #1R0271-21
FINDINGS OF FACT AND
CONCLUSIONS OF LAW
AND ORDER**
10 V.S.A., §§ 6001 - 6092

I. INTRODUCTION

On March 10, 2010, OMYA, Inc. filed an application for an Act 250 permit amendment to develop a new lined tailings management facility ("TMF"). The tract of land is located on OMYA, Inc. Verpol facility in Florence, VT. The permittee's legal interest is ownership in fee simple described in a deed recorded in May 1978 in the land records of the Town of Florence, Vermont.

Under Act 250, projects are reviewed based on the 10 criteria of 10 V.S.A., Section 6086(a) (1)-(10). Before granting a permit, the District Commission must find that the project complies with these criteria and is not detrimental to the public health, safety or general welfare.

Decisions must be stated in the form of Findings of Fact and Conclusions of Law. The facts we have relied upon are contained in the documents on file identified as Exhibits 1 through 24, and the evidence received at a hearing held on April 12, 2010. At the end of the hearing, the Commission recessed the proceeding pending submission of additional information. The Commission adjourned the hearing on June 2, 2010, upon receipt of the additional information and completion of Commission deliberations.

II. JURISDICTION

The project is a material change to a permitted project and thus constitutes "development" pursuant to Act 250 Rule 2(C)(6).

III. PARTY STATUS

A. Final Party Status Determinations

Pursuant to 10 V.S.A. § 6085, the Commission heard requests for and granted preliminary party status as follows:

The following are statutory parties to this proceeding:

1. The applicants, by David Cooper, Esq., Mike Laurent, Neal Jordan, David Adilman and Eric Steinhauser.
2. The Town of Pittsford, not represented.
3. The Town Planning Commission, by Don Nickless.
4. The Rutland Regional Planning Commission, not represented.
5. The State of Vermont, Agency of Natural Resources, by Elizabeth Lord, Esq., and James Surwilo.

The following adjoining property owners were admitted as parties pursuant to 10 V.S.A. § 6085(c)(1)(E) as having demonstrated a "particularized interest" in the potential adverse impacts from the project:

6. Bev Peterson, granted under criterion 1B (water quality related to disposal of wastes). The permittee objected to party status on the grounds that Ms. Peterson is not an adjoiner to the OMYA tract upon which the lined landfill is proposed. Exhibits 23 and 24. RCO, on Ms. Peterson's behalf, filed a rebuttal. Exhibit 22. Having reviewed the filings, the Commission concludes that both OMYA tracts are subject to Act 250 jurisdiction and both involve integral components of the same OMYA processing operation. Accordingly, the Commission finds that Ms. Peterson is an "adjoiner" pursuant to the statute. We note in passing that even if the Commission concluded that Ms. Peterson was not an "adjoiner" with regard to this project, we agree with RCO that Ms. Peterson has established a particularized interest insofar as her interests in water quality in the groundwater may be affected.

The following persons or entities were admitted as parties, as indicated, pursuant to 10 V.S.A. § 6085 (c)(1)(E) and Act 250 Rule 14:

7. Residents Concerned About OMYA ("RCO"), by Sheryl Dickey, Chris Davis, and Clare Cragan under criterion 1B (water quality related to disposal of wastes). See Exhibit 21. The permittee objected to party status on various grounds recited in Exhibits 23 and 24. RCO filed a rebuttal. Exhibit 22. Having reviewed the filings, the Commission concludes that RCO has established sufficient grounds for party status inasmuch as it has one or more members who may be directly affected by groundwater quality. Accordingly, the objection to RCO is overruled and the preliminary party status grant to RCO is now final.

There were no other requests for party status.

Pursuant to 10 V.S.A. §60859(c)(2), the District Commission made preliminary determinations concerning party status at the commencement of the hearing on this application. Prior to the completion of deliberations, the District Commission re-

examined the preliminary party status determinations and found that the parties continue to qualify under the relevant criteria as stated above.

IV. FINDINGS OF FACT

Prior to taking evidence with regard to the ten Criteria of 10 V.S.A., Section 6086(a), the Commission and all parties agreed that the permittee through submission of the application material has met the burden of proof with respect to the following criteria for Phase I,¹ Cells 1 and 2:

1 - Air Pollution	8 - Aesthetics
1(A) - Headwaters	8(a) - Wildlife
1(C) - Water Conservation	9(A) - Impact of Growth
1(D) - Floodways	9(B) - Agricultural Soils
1(E) - Streams	9(C) - Forest and Secondary Ag. Soils
1(F) - Shorelines	9(D) - Earth Resources
1(G) - Wetlands	9(E) - Extraction of Earth Resources
2 - Water Supply	9(F) - Energy Conservation
3 - Impact on Existing Water Supplies	9(G) - Private Utilities
4 - Erosion	9(H) - Costs of Scattered Development
5 - Transportation Services	9(J) - Public Utilities
6 - Educational Services	9(K) - Public Investments
7 - Municipal Services	9(L) - Rural Growth Areas
	10 - Local and Regional Plan

Therefore, the application shall serve as the Findings of Fact on these criteria.

The following written final affirmative Findings of Fact for Phase I, cells 1 and 2, pertain to Criterion 1(B) - Waste Disposal. Partial findings are made below under other enumerated criteria for Phases II and III. To the extent any proposed findings or conclusions of law are included below, they are granted; otherwise, they have been considered and are denied. See Petition of Village of Hardwick Electric Department, 143 Vt. 437, 445 (1983).

In making the following findings, the Commission has summarized the statutory language of the 10 criteria of 10 V.S.A., Section 6086(a):

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The filings in this case have included varying numerical designations of the "phases" and the "cell numbers" including the use of Roman numerals. For the sake of consistency, the Commission in this decision will refer to the phases as I, II and III and the cells as 1 and 2.

Introduction to the Findings:

Pursuant to Act 250 Rule 21 and the Master Permit Policy of the Natural Resources Board, this application involves construction approval of Phase I, Cells 1 and 2 of a larger plan to line the historical waste deposition areas at OMYA. This decision includes a combination of “partial findings” and “final affirmative findings” related to subsequent phases II and III. Accordingly, this permit decision involves “final affirmative findings” with respect not only to Phase I (the plan to line the first deposition area) but to discrete aspects of Phases II and III as well, and as further enunciated below. These findings are issued for a period of five years and are subject to renewal upon application by the permittee.

In making the following findings, the Commission has summarized the statutory language of the 10 criteria of 10 V.S.A., Section 6086(a). To the extent any proposed findings or conclusions of law are included below, they are granted; otherwise, they have been considered and are denied. See *Petition of Village of Hardwick Electric Department*, 143 Vt. 437, 445 (1983).

GENERAL FINDINGS AND FINDINGS ON NON-APPLICABLE CRITERIA

1. Overall, the Commission finds that the project represents an historically high level of protection of the state’s groundwater quality. We are aware of no other lined landfill for earth extraction waste in Rutland County (or in the State of Vermont).
2. As noted above, the scope of the project reviewed for final construction approval was narrowed to the construction of Phase I Cells 1 and 2 of the TMF. Final affirmative findings are also issued for subsequent phases to the extent that certain criteria have been found not relevant to those subsequent phases. Those criteria are enumerated below.
3. Based on the nature of the project (a lined landfill exclusively on the grounds of the permittee’s Verpol property) the Commission concludes that the permittee has demonstrated sufficient evidence for final affirmative findings for all three phases on the following criteria. No further evidence will be required for subsequent phases on the following criteria, unless, in the Commission’s judgment, circumstances have changed such that additional consideration need be made to one or more of the following criteria:

No Additional Evidence Will Be Required for Subsequent Phases on the Following Criteria:

Criterion 1 (air pollution) - the project will not result in new sources of air pollution.

Criterion 1(C) (water conservation) – water collected as leachate in the TMF shall be returned to the Verpol facility for re-use in the mineral processing operations.

Criterion 1(F) (shorelines) – the TMF is not located on or near any shorelines.

Criterion 1(G)(wetlands) - the TMF is not located on or near any wetlands.

Criterion 2 (sufficient water) – the TMF does not consume or utilize water. Any water collected from the TMF will be returned to the mineral processing facility for re-use.

Criterion 3 (water supplies) – the TMF does not consume or utilize water and therefore will have no effect on water supplies from a demand standpoint. Potential impact upon water quality in adjoining or neighboring wells is considered by the Commission under criterion 1B in this decision.

Criterion 5 (traffic) – all traffic related to the TMF is contained within the Verpol facility and does not utilize public highways.

Criterion 6 (education) – no additional employees are associated with or required by the TMF.

Criterion 7 (municipal impacts) – all activities related to the TMF will be conducted on-site, at OMYA's sole cost and expense and will have no foreseeable impact on the ability of Pittsford to provide municipal or governmental services.

Criterion 9(A) (impact of growth) – the TMF will support the continued operation of the Verpol facility, will not result in increased employment, and will not stimulate secondary growth.

Criterion 9(B) (prime ag soils) - the project involves no impacts to prime ag soils.

Criterion 9(C) - (forest soils) - the project involves no impacts to productive forest soils.

Criteria 9(D) and (E)(earth extraction operations) - the project does not involve new earth extraction operations.

Criterion 9(F) (energy conservation) – construction and operation of the TMF will require no additional energy resources beyond those currently and historically associated with the development and operation of the on-site TMAs it will replace and that were utilized for tailings disposal for over 30 years (because the tailings will be delivered to the TMF in a dewatered form from the Tailings Dewatering Facility, their

disposal in the TMF will require less manipulation by heavy equipment and thus less energy than what historically was needed).

Criterion 9(G) (private utility) – the TMF is the sole responsibility of the permittee and is not shared with or used by any other person or entity.

Criterion 9(H) (scattered development) – the TMF is located entirely on property owned and the costs of operation are borne exclusively by the permittee.

Criterion 9(J)(public utilities) - the project involves no new impacts related to public utilities.

Criterion 9(K) (public investment) – the TMF is located entirely on property owned and the costs of operation are borne exclusively by the permittee.

Criterion 9(L) (rural growth area) – the TMF is located entirely on property owned and the costs of operation are borne exclusively by the permittee.

Findings Specific to Phase I, Cells 1 and 2 for Criterion 1B

SECTION 6086 (a)(1)(B) WASTE DISPOSAL:

4. The Project involves the construction of Phase I Cells 1 and 2 of the TMF, which phase specifically includes the construction of a lined facility in Cells 1 and 2 as depicted on the plans and as described in the Solid Waste Certification (“the certification”) issued by the ANR. The Certification covers all of Phase I, including both Cells 1 and 2. The permittee believes Phase I will hold more tailings than will be generated during the five-year duration of the Certification. Exhibits 8, 23a, and 16; Testimony of Laurent and Steinhauser.
5. The lined facility will receive tailings from the existing tailings dewatering facility (“TDF”) (approved and constructed pursuant to Land Use Permit # 1R0271-18) for disposal. Exhibits 1, 8, and 23a; Testimony of Laurent and Steinhauser.
6. Initially, the tailings are in a slurry form containing crushed rock that, based on particle size analyses, may be described as sandy silt, and chemical compounds utilized in the production process, most notably a flotation reagent. Tailings disposed in the TMF will have been dewatered to 85% or greater solids by weight after processing in the TDF, and will have a consistent particle size range for the solids portion. The permittee is studying the potential for commercial use of the tailings which would, if successful, reduce the need for onsite storage of tailings. Exhibit 1; Testimony of Laurent.

7. The TMF is expected to accommodate the quantity of tailings that may be generated for approximately the next 20 years (at a projected rate of up to 150,000 tons per year). Exhibit 1.
8. The certification is for the maximum allowed term of 5 years, after which further certifications will be sought for successive 5 year periods as provided in the current Solid Waste Management Rules ("SWMRs"). Accordingly, the development of the TMF will take place over time and in phases. Exhibits 1, 8, and 23a.
9. The TMF will be located on the existing tailings management areas (TMAs) and one of the settling cells that were used to dewater the tailings prior to the operation of the TDF. During the first 5 year period covered by the certification, the TMF development will involve a total of two cells (denominated Phase I Cell 1 and Phase I Cell 2) situated above the former West Settling Cell, the Loveland TMA, and a portion of the Kane & Drake TMA. Exhibits 1, 16, and 17; Testimony of Laurent and Steinhauser.
10. The location of the TMF has been selected to comply with the requirements of the Solid Waste Management Rules (SWMRs) and to avoid those areas in which disposal of solid waste is prohibited. The TMF, as designed and located, complies with all provisions of the SWMRs and equals or exceeds the standards and requirements thereof. Exhibits 1 and 23a; Testimony of Laurent and Steinhauser.
11. The TMF will contain a liner and leachate collection system. The liner system for the TMF consists of the following components, listed from top to bottom: • A 12-inch thick layer of crushed fine sand and gravel to provide filtration and prevent clogging of the geocomposite; • A drainage geocomposite on top of the geomembrane to provide lateral drainage of leachate; and • A 60-mil thick textured high-density polyethylene (HDPE) geomembrane. Exhibit 1; Testimony of Laurent and Steinhauser.
12. The TMF liner system will be constructed over three different areas: (i) existing tailings placed in former TMAs; (ii) natural ground; and (iii) near-vertical rock walls. Underlying the HDPE geomembrane is either existing tailings (proof-rolled and conditioned for moisture and density), or a 12-inch thick layer of compacted screened bedding soil. For the liner system constructed adjacent to the rock walls, a 1.5H:1V wedge of waste rock will be constructed on which the screened bedding soil will be placed. The TMF liner grades slope toward sumps so that liquid (i.e. leachate) can be collected and removed from the lined area. The TMF liner grades range in slope from 2 percent to about 67 percent (1.5H:1V). The combination of the liner grades, the drainage

geocomposite, and leachate collection pipes limit the potential for leachate head to be greater than 12 inches during routine operating conditions. Leachate collection sumps are located in Phase I, Cells 1 and 2. Leachate collected in the sumps is conveyed to a process tank within the TDF through a 4-inch diameter HDPE force main. The leachate removal pumps were sized to convey the liquid generation anticipated during normal operations. The liquid conveyed to the TDF will be re-used as process water at the Verpol facility's West Plant. Future phases and segments of the TDF are expected to contain similar features and engineering details, subject to changes that may be required by the SWMRs. Exhibit 1; Testimony of Laurent and Steinhauser.

13. The final cover system for the TMF consists of the following components, listed top to bottom: • 6-inch thick layer of topsoil that serves to support vegetation that will limit the potential for erosion. • 12-inch thick layer of Fine Sand and Crushed Gravel that serves as a protective layer and as a filter medium to limit the potential for clogging of the underlying geocomposite; • A drainage geocomposite, consisting of an HDPE drainage net with non-woven geotextile fabric heat-bonded on both sides, that serves as the lateral drainage layer; and • A 40-mil thick textured linear low-density polyethylene (LLDPE) geomembrane that serves as the hydraulic barrier. Exhibit 1; Testimony of Laurent and Steinhauser.
14. Samples of the liner and geomembranes were provided to the Commission and made available at the hearing for examination by the parties. Exhibit 16.
15. The project will not involve the employment of additional personnel. The personnel employed at the Verpol facility will use existing, permitted, on-site septic systems. Exhibit 7.
16. Stormwater runoff will be controlled on and around the TMF using sideslope terraces, downchutes, perimeter swales, and pipe culverts. Runoff directed from the TMF will flow to either the Pittsford Italian Quarry (PIQ) or to the former East Settling Cell (ESC) where the collected water either will be pumped into the Verpol facility for use in the production process or discharged in accordance with existing ANR-issued permits cited below. In addition, a portion of the ESC will be lined with an 80-mil thick geomembrane for the purposes of providing contingency storage for tailings slurry in the event that there is a TDF shutdown for more than 48 hours. If such an event occurs, the lined portion of the stormwater basin would be isolated from the remainder of the stormwater system until such time as the tailing slurry is completely removed. Although the Vermont stormwater standards require designing stormwater management features based on the expected peak flows from a 10-year or 25-year storm, the stormwater management features associated

with the TMF were conservatively designed based on a 100-year, 24-hour storm. Stormwater runoff will be managed in accordance with existing construction and disposal permits NPDES Discharge Permit #3-0395, Multi-Sector General Permit #4508-9003 and Stormwater Discharge Permits #3512-9010 and #3512-9015. Exhibits 7, 10, and 11.

17. The TMF also will include a leachate management system to collect and transport leachate from the TMF and return it to the calcium carbonate production process for re-use. OMYA currently implements and will continue to implement, a groundwater and surface water monitoring plan that has been approved by the SWP and in use and refined over the course of several years. Exhibits 7, 12 and 16.
18. Results from periodic monitoring demonstrate compliance with applicable standards at all points of compliance. Exhibits 7 and 13.
19. The project does not involve the storage of fuels, chemicals, cleaning fluids, solvents, batteries or pesticides. The TMF will be a lined facility with a leachate collection system to collect and return leachate that may emanate from the TMF to the Verpol calcium carbonate production facility for re-use. Exhibit 7.
20. Currently there are two primary (biannual) water monitoring operations per year (May and October) for both groundwater and surface water, and two additional quarterly operations in August and January focused on surface water. With respect to groundwater monitoring, groundwater samples are collected from 23 on-site monitoring wells, 3 offsite monitoring wells, 9 on-site surface water locations, four off-site residential wells, 1 off-site municipal well, 2 off-site surface water locations and 3 Hogback Quarry surface water locations. Analytical results will be reported to the Town of Pittsford, participating off-site well owners, and the VTDEC following each sampling event. The monitoring plan incorporates a contingency plan based on specified thresholds. These thresholds include specified locations and concentrations of certain chemicals that if detected would trigger additional reporting and monitoring requirements. Exhibits 23a, 12, 16, and 17.
21. At the hearing and in subsequent party status filings, RCO and, by extension, Bev Peterson, raised questions about whether or not the construction of a lined facility on top of historically deposited waste materials represented a risk of undue water pollution. Testimony and Exhibits 21 and 22. In summary, the concerns had to do with a potential for increased concentrations of iron, manganese and possibly arsenic occasioned by the reduced oxygen in precipitating water as a result of the impervious lining. Exhibit 22. A second

concern had to do with protracted contact between the historically deposited waste and the groundwater, citing pending litigation related to this issue. If RCO were to prevail on the issue of removal of the historical deposits, then that removal would be made more difficult as a result of the lined landfill on top of it. RCO requests that the Commission require OMYA to “conduct a site specific study on whether the waste disposal facility will increase arsenic contamination before permitting the project to move forward.” Exhibit 22. OMYA’s written response, contained in Exhibit 23b, was prepared by Geosyntec Consultants (“Geosyntec”), the engineering firm which participated in the Agency of Natural Resources studies related to the plans for this landfill. According to Geosyntec, “[c]onstruction of the lined facility on top of the existing unlined Tailings Management Areas (TMAs) is not expected to cause a risk of undue water pollution under Criterion 1.” Exhibit 23b. In arriving at this conclusion, Geosyntec relies upon “extensive groundwater and surface water monitoring and assessment at the Site [which] have indicated that there is no current threat to human health or the environment, and no indication of future threats” citing the Section 5 Study that was conducted in preparation of the Solid Waste Certification. Exhibit 23b. Of the two chemicals of concern, AEEA and arsenic, the appearance in samples has been “sporadic” and “does not show increasing trends.” Exhibit 23b. Furthermore, the concentrations of AEEA have been shown to be decreasing and “the levels of arsenic in groundwater are consistent with what commonly is observed at other sites where groundwater migrates through soil and rock in which arsenic naturally is present (so called geogenic arsenic).” Moreover, as Geosyntec concluded, “[t]he proposed lined Tailings Management Facility (TMF) is not expected to cause an increase in groundwater concentrations of these two chemicals.” Exhibit 23b. The Commission has reviewed the filings in this case and concludes that, by a preponderance of the evidence presented to the Commission, the permittee has established that the project will not pose an undue risk of water pollution under Criterion 1. The Commission will, by permit condition, require notification in the event that future water quality monitoring results indicate that the conclusions reached by Geosyntec are incorrect. Moreover, the Commission will retain jurisdiction under criterion 1 and will reserve the right to conduct further hearings and to impose additional conditions in the event that water quality monitoring results indicate an undue risk of water pollution.

Therefore, the Commission concludes that this project will meet applicable Division of Wastewater Management Regulations and will not result in the injection of waste materials or harmful or toxic substances into groundwater or wells or result in undue water pollution.

Additional Requirements Prior to Approval of Phases II and III

As noted above, the final affirmative findings issued above with respect to Phase I, Cells 1 and 2 are issued for a period of five years, subject to an application for renewal of those findings. With respect to Phases II and III, construction is not presently approved. At such time as the permittee seeks approval for construction of Phase II or III, it will be obligated to file an application for an amendment to this permit. Such application must contain evidence of conformance with the following Act 250 criteria:²

- Criterion 1B (water pollution) – The applicant must file the new Solid Waste Certification for the Phase applied-for as well as a summary of historical monitoring results and such other evidence as is relevant in the Schedule B to establish conformance with Criterion 1B including, but not necessarily limited to stormwater construction permit, stormwater discharge permit, multi-sector general permit .
- Criterion 4 (erosion) – To the extent applicable (e.g. if not covered by an existing plan), OMYA must submit modified erosion control plans or Stormwater Pollution

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At such time as an application is filed for approval of Phase II or III, the Commission may require evidence on criteria in addition to those below if changed circumstances dictate that additional criteria are newly relevant. In its proposed finding, Exhibit 23c, the permittee described this in the following manner:

“Because Solid Waste Disposal Certifications have a limited term, applications to the Waste Management Division for future certification will be made by the Permittee every five years (or as required by the Solid Waste Management Rules). Accordingly, to the extent the Solid Waste Management Rules then in effect require a change in management techniques that requires a change in construction that would constitute a material or substantial change to the development approved in this permit, a timely application for amendment to Land Use Permit #1R0271, as amended, will be submitted to the District Commission. In addition, in the event Phase 1 Cell 1, or a subsequent stage of the development of the TMF for which Certification has been issued by the Waste Management Division, is filled to final grade before the end of the period of duration of Certification, notwithstanding the lack of material or substantial change to the development or a need for new Certification, a timely application for amendment to Land Use Permit #1R0271, as amended, will be submitted to the District Commission along with the appropriate fee calculated in accordance with the Act 250 Rules and statute then in effect. Specifically, if the construction methods and materials employed for the subsequent stages of development are the same as for Phase 1 Cell 1, no material or substantial changes that would require the District Commission to revisit any of the final affirmative findings of fact and conclusions issued in connection with the present permit are anticipated. On that basis, any future application for amendment to the master permit seeking construction approval of any subsequent stage of the development will be accompanied by the appropriate fee for final approval for the construction of such stages as amendments to this master permit. In the event the construction methods and materials for any subsequent stage of the development of the TMF are different from those for Phase 1 Cell 1 and such differences constitute material or substantial changes, future applications will identify those differences and will request final review by the District Commission under all applicable Criteria.”

Prevention Plans as necessary to accommodate the subsequent phase of development then proposed.

- Criterion 9(J) (public utility services) – To the extent applicable (e.g. an increase in demand for electricity in connection with the operation of a subsequent phase), OMYA must submit evidence that necessary supportive governmental and public utility facilities and services are available and that an excessive or uneconomic demand will not be placed on such facilities and services.
- Criterion 10 (Town and Regional Plan) – In the event an applicable Town or Regional Plan has been modified by the time a subsequent phase of development is proposed for final review, OMYA must submit information demonstrating that the proposed development is in conformance with any duly adopted local or regional plan.

V. SUMMARY CONCLUSION OF LAW

Based upon the foregoing Findings of Fact, it is the conclusion of this District Environmental Commission that the project described in the application referred to above, if completed and maintained in conformance with all of the terms and conditions of that application, and of Land Use Permit #1R0271-21, will not cause or result in a detriment to public health, safety or general welfare under the criteria described in 10 V.S.A., Section 6086(a).

VI. ORDER

Based upon the foregoing Findings of Fact and Conclusions of Law, Land Use Permit #1R0271-21 is hereby issued.

Dated at Rutland, Vermont, this 2nd day of June, 2010.

By /s/ Phillip J. Nexon
Phillip J. Nexon
Chairperson, District #1 Commission

Commissioners participating in this decision:

Michael J. Henry
Amanda Beraldi