“It’s Not Just Dirt”
Permitting the Storage of OMYA, Inc. Mine Waste in Florence, VT

Service Learning Project for Middlebury College
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# TABLE OF CONTENTS

I. Introduction 1

II. History 2
   A. OMYA Background 2
   B. OMYA in Florence, VT 2
   C. The Proposed OMYA Tailings Pile – Timeline of Early Decisions 3

III. Research 4
   A. Mine Waste Regulations in Northeastern States 4
      1. Connecticut 4
      2. Massachusetts 6
      3. Maine 8
      4. New Hampshire 10
      5. New York 11
      6. Vermont 12
   B. Pesticides and Biocides Regulation 13
   C. Interviews of Florence Residents 15
      1. Interviewees A & B 16
      2. Interviewee C 18
      3. Interviewee D 20
   D. Summary of Interview Findings 22

IV. Recommendations 24

V. Reflections 25

VI. Conclusion 27
I. INTRODUCTION

Environmental justice provides a framework for addressing social injustice from an environmental perspective. Since the theme of the Fall 2003 ES 401 seminar was environmental justice, we were introduced to Alyssa Schuren from the Toxics Action Center and presented with several opportunities to get involved with environmental justice issues in the state of Vermont. The issue we chose to work on pitted the town of Florence, VT against OMYA, Inc. regarding the proposed construction of a mine tailings pile directly above the town’s water source. OMYA, a Swiss mining company, has several active operations in Vermont (including Middlebury) and a proposed mine in Danby, VT. OMYA operates some of the world’s largest calcium carbonate mining units, and Vermont’s marble deposits provide a prime source. One of the primary uses for this calcium carbonate is as a filler compound for paper, and other uses include pharmaceuticals and food-grade additives. As with any extractive industry, there is a complex relationship between transportation issues, land use and ownership issues, local economic benefits, public health, and the health of the environment.

One of OMYA’s mining and processing factories is located in Florence, VT, a small company town in which OMYA owns more land than the residents and is the landlord for many of the rental properties. The main issue of concern for the local organizations directly involved with OMYA issues—Residents Concerned About OMYA (RCO) and Vermonters for a Clean Environment (VCE)—was that this proposed unlined tailings pile would contain chemicals in addition to just the rock waste. The health effects of these chemicals, both individually and once combined in the dump needed to be determined. When our project began in early September, these local organizations were awaiting a decision from the state’s Solid Waste Department regarding the classification of these tailings as either earth materials (and hence not needing to be placed in a lined pit) or as solid waste, requiring a permitted liner system as well as leachate collection and monitoring systems.

After our first meeting with Annette Smith from VCE and Bev Peterson from RCO, we decided that our best course of action would be to investigate the contents of the proposed tailings pile and to research OMYA’s corporate citizenship in other cities and states in the country. As we began our research in this direction, we found it very difficult to determine the contents of the tailings because of OMYA’s unwillingness to fully disclose the chemicals used in the treatment process. In addition, press about OMYA is limited and anything published was not substantial enough to build a case against them as an irresponsible corporate citizen. This, combined with a critical first ruling on the permit issue by Jeffrey Wennberg, Commissioner of Vermont’s Department of Environmental Conservation (DEC), took our project in a different direction. Commissioner Wennberg’s first decision was that the tailings were classified as earth materials, and therefore the tailings pile would not need a solid waste permit and the tailings pile would not need a protective liner system. We decided to switch gears and familiarize ourselves with mine regulations in other New England states, with the hope that this information would reveal that Vermont had the weakest standards for the handling of mine waste. Unfortunately for us, this was not the case. Mine regulations in New England are pretty standard, but what makes regulations in Vermont unique is how waste is classified. In every other state, untreated mine waste is considered “earth materials,” and treated mine waste is “solid waste.” In Vermont, however, these classifications are open to interpretation. Commissioner Wennberg’s interpretation directed our efforts towards collecting evidence that would make him reverse his initial decision because if his decision was reversed, the tailings would be considered “solid waste,” and the pit would have to be lined.
As you will see from reading this report, Commission Wennberg did ultimately reverse his decision and even went so far as to require additional safeguards for OMYA’s existing tailings piles. While we are aware that our research did not contribute directly to this decision we hope that the information included in this report will serve as a useful reference for other OMYA issues that the town of Florence and other communities with an OMYA presence may face. In addition to summaries of mine waste regulations in the northeastern states, summaries of pesticide and biocide regulations and transcripts of interviews we conducted with Florence residents are provided.

Though the process was at times tedious and constantly changing, we were able to learn a lot about the process of realizing change within an environmental justice framework. For us the difficulty was to remain objective and committed to a project that could change all of a sudden at any moment. We realized that information is subjective and you have to consider the source before you can assess its credibility. Coming to this conclusion made it clear that this was not a simple case of David versus Goliath, but a much more intricate and complicated debate with many players and many issues compounding each other and further complicating the issue.

II. HISTORY

A. OMYA Background

OMYA is a Swiss multinational company that mines and processes chalk, limestone and marble to make calcium carbonate fillers and pigments. Finely ground calcium carbonate is used in adhesives and paints, plastics and rubber, paper, toothpaste, pharmaceuticals and food. OMYA employs about 5600 people and operates about 140 production plants worldwide. Plants are located in Florence, Vermont; Sylacauga, Alabama; Lucerne Valley, California; Perth, Ontario; Superior, Arizona; and St. Armand, Quebec. OMYA’s environmental policy reads: “It is the policy of OMYA to manage its activities in such a way as to minimize its environmental impact to the greatest extent feasible.”

OMYA is privately held by Max Schachenman and family. The parent company, OMYA AG, is based in Switzerland. One of the subordinate operating companies, OMYA Inc., is headquartered in Proctor, VT.

B. OMYA in Florence, VT

A vein of high quality calcium carbonate runs from Canada to Alabama. In western Vermont, the vein lies close enough to the surface so that quarrying the rock is profitable. OMYA purchased the Vermont Marble Company in 1976 and in 1979, opened the Verpol marble processing plant in Florence, VT. The site was chosen in part because of its close proximity to high voltage power lines and railroad tracks. The plant is also centrally located between deposits of marble in Middlebury, Salisbury, Brandon, Pittsford, South Wallingford, Danby, and Dorset. The Verpol plant currently processes marble quarried in Middlebury, South Wallingford and also onsite in Florence.

The plant produces various grades of dry powder, wet slurry and treated products. OMYA ships its products by rail car and by truck. What happens at the Verpol plant is not just the grinding of marble. After coarse grinding of the rock, mineral impurities are floated out of the slurry using a chemical flotation agent known as tall oil. The wash water and impurities are
pumped outside the plant and into a series of settling cells and former quarries. The settled solids are dredged and deposited in old quarries and in stockpiles on site. Another use of chemicals at the plant includes the addition of biocides to the finished slurry product.

C. The Proposed OMYA Tailings Pile – Timeline of Early Decisions

DEC Commissioner Wennberg summarized the proposal as a lagoon with a perimeter berm, to hold partially dewatered tailings. The water content of the tailings would be 1-2 parts water to 1 part solids. The capacity of the tailings facility would be about 40 million cubic feet of tailings and is estimated to cover 31 acres and be 80 feet tall at its maximum.

On August 6, 2002, OMYA presented their tailings facility proposal to the Solid Waste Program of the Waste Management Division of Vermont’s Department of Environmental Conservation. They wanted to know whether the tailings facility would need a solid waste certification under 10 V.S.A. § 6605. The waste division determined that the facility would be exempt from solid waste certification requirements under Vermont Solid Waste Management Rules section 6-301(b) (2), which reads:

(b) The following are exempt from the provisions of these rules:

(2) Earth materials resulting from mining, extraction, or processing operations except where the Secretary determines that these materials may pose a threat to public health and safety, the environment, or cause a nuisance. vii

In December 2002, the Department of Environmental Conservation received a request for reconsideration of the tailings facility’s exemption from solid waste regulations.

On September 25, 2003, DEC Commissioner Wennberg announced his tentative ruling on the question of exempting the Verpol tailings from solid waste regulations. He decided that the proposed Verpol tailings facility would not require a solid waste facility certification. Wennberg acknowledged that processing chemicals would be present among the mineral waste but still classified the waste as earth materials, “provided that the Secretary finds that the material does not pose a risk to public health and safety, the environment, or create a nuisance.”
III. RESEARCH

A. Mine Waste Regulations in Northeastern States

Mine waste regulations were researched in the northeastern states (Connecticut, Massachusetts, Maine, New Hampshire, New York) to see how they compare to Vermont’s regulations. Below is a summary of key findings, and a summary of the regulations in each state follows.

- All New England states, including Vermont but excluding New York, seem to be in a similar position, with mining not being particularly prevalent, and therefore issues dealing with mine waste disposal are not considered to be legislative priorities.
- The Vermont Solid Waste Management Rules mandate strict protective and preventive measures, including a double liner system, for solid waste facilities that are regulated under this law. This law is similar to the Massachusetts Solid Waste Facility Regulations, which also mandate a double liner system on all landfills. However, in the Vermont law, earth materials that are found not to be harmful to public health are exempt from the law.
- This combination of a seemingly strict solid waste law and an exemption loophole that is open to interpretation makes it difficult to determine whether Vermont’s mining waste laws are more or less strict than other New England states. To reach a conclusion, one might consider, a) if, by standards in other states, the OMYA tailings would have been defined as earth materials, b) if other states often grant exemptions for mine waste, and c) if, referring to precedents in Vermont, material of this nature has previously been characterized as harmful and therefore subject to the Vermont Solid Waste Management Rules.

1. Mine Waste Regulations in Connecticut

Contact Information

Bureau of Waste Management
Stan Gormley, David McKeegan
(860) 424-3021
http://dep.state.ct.us/wst/index.htm

Waste Planning and Standards Division
(860) 424-3022

Waste Engineering and Enforcement Division
(860) 424-3023

Water Bureau
Ken Feathers
(860) 424-3770
Regulation of Solid Waste

- If the solid waste is composed only of soil and rocks, it is classified as clean fill.
- If the mine tailings contain chemicals, the waste generator will hire a consultant to perform a hazardous waste determination. The results of this analysis are submitted to the Bureau of Waste Management.
- If the waste is classified as "special waste," it must be deposited in a special waste landfill.
- If the mine waste is classified as municipal waste or bulky waste (including ash), it would be deposited into a landfill with a double liner and leachate collection and detection systems.
- If additives are present in the mine waste, the waste generator would need to hire a consultant to demonstrate that those chemicals would not pose health or environmental threats.

The Bureau of Waste Management works to minimize adverse effects from the treatment, storage, disposal and transportation of solid and hazardous wastes, hazardous substances, and pesticides; promotes compliance with applicable laws and regulations; offers education and technical assistance to the public, business, industry, and professionals in the waste field; and promotes pollution prevention.

The Waste Planning and Standards Division develops long range management plans to assure adequate disposal for municipal solid waste, bulky waste, special wastes such as asbestos, hazardous waste, and household hazardous waste. They also:
- Provide technical assistance on composting, pollution prevention, recycling, and source reduction
- Educate the public on recycling, source reduction, composting
- Conduct training courses for landfill, transfer station, resource recovery and recycling facility operators

The Waste Engineering and Enforcement Division:
- Conducts multi-media pollution prevention, monitoring, and enforcement inspections
- Processes permit applications for solid waste facilities such as resource recovery facilities, transfer stations, landfills, and biomedical waste treatment facilities
- Approves plans for the operation of solid waste facilities, landfill closures, and remediation of improper solid waste management practices
- Administers federal (RCRA) programs to regulate hazardous waste generators and hazardous waste treatment, storage, and disposal facilities
- Inspects solid and hazardous waste facilities
- Approves facility closures
- Authorizes disposal of asbestos and other state regulated wastes

Additional Information
In Connecticut, mining is regulated at the town level. Each of the state’s 169 towns may have slightly different regulations and arrangements. The State Department of Environmental Protection may regulate environmental aspects if such regulations are violated by mining operations. However, the state does not regulate mining per se.
2. Mine Waste Regulation in Massachusetts

Contact Information

Paul Emond
MA DEP Business Compliance Division
E-mail: paul.emond@state.ma.us
Phone: (617) 292-5974

Massachusetts Department of Environmental Protection
http://www.state.ma.us/dep/
General Laws of Massachusetts
http://www.state.ma.us/legis/laws/mgl/
Chapter 21B, Mining Regulation and Reclamation
http://www.state.ma.us/legis/laws/mgl/gl-21B-toc.htm
Solid Waste Facility Regulations
MA DEP Hazardous Waste Regulations
http://www.state.ma.us/dep/bwp/dhm/files/regs/100.htm

Regulation of Mining Activities

- Massachusetts mining regulations are found in Chapter 21B, Mining Regulation and Reclamation (see link above).
- Section 11 of this law deals with water quality and the water table. In addition to maintaining stability of the water table, mine facilities are required to monitor the quality of the water affected by their operations. There is, “a provision that the operator treat or remove any water contaminated with toxic chemicals and guard against such contamination; monitor and provide that any casing, sealing or otherwise management of boreholes, shafts, tunnels or wells does not cause acid or other toxic drainage materials from entering ground and surface water; a provision to insure that … water or public health hazards are treated and disposed of in a manner compatible with sound health policy and good water supply.”

Regulation of Mine Tailings

- Mine tailings are tested for being hazardous waste, but otherwise are classified as solid waste and regulated through the Solid Waste Facility Regulations (see link above).
- Hazardous waste is defined in the Hazardous Waste Regulations (see link above).
- Massachusetts does not have its own mining waste laws.
- Generally, Massachusetts has limited mining, mostly in the western part of the state. However, there is a good deal of quarrying being done.

Regulation of Landfills

- According to the Solid Waste Facility Regulations, all landfills regulated by this law are to be enhanced with a double liner system, at the minimum. In addition, there are to be primary and secondary leachate collection and removal systems on each landfill. Selections of the law follow.
19.104: Landfill Facility Plan

(4) **Landfill Design Plan.** The landfill design plan shall include:
   (a) a ground water protection system design plan which details the configuration of the liner system, leachate collection system(s), leachate pumping, storage, treatment and disposal systems, and efficiency of the liner in terms of leachate removal;

19.110: Ground Water Protection Systems

(3) **Minimum Liner Configuration.** A landfill liner shall, at a minimum, be comprised of a composite liner consisting of a low permeability compacted soil layer or admixture overlain by a flexible membrane liner. The FML layer shall be constructed so that the FML material is in direct contact with the low permeability soil layer. Liner components shall meet the design criteria specified at 310 CMR 19.110(5) through (10).

(4) **Ground Water Protection System Components.** Except as provided in 310 CMR 19.111: *Alternative Groundwater Protection System Design,* and 310 CMR 19.114: *Ground Water Protection System and Final Cover Waivers,* ground water protection systems shall consist, at a minimum, of:
   (a) a sub-grade layer;
   (b) a liner composed of, at minimum, a composite liner;
   (c) a drainage layer or layers;
   (d) a leachate collection system; and
   (e) a leachate storage system unless the leachate collection system is to be directly connected to a sewer system.

(6) **Low Permeability Layer (Liner) Standards.**

(a) **Performance Standards.** A low permeability layer shall:
   1. minimize to the greatest practicable extent the movement of leachate through the liner; and
   2. be designed and constructed to meet the permeability design standard for the expected life and post-closure period of the facility.

(b) **Design Standards.**
   1. **Low Permeability Soil/Admixture Layer Standards.** Compacted low permeability soil or admixture layers shall:
      a. have a minimum thickness of two feet;
      b. have a maximum in-place saturated hydraulic conductivity of $1 \times 10^{-7}$ cm/sec. throughout the entire thickness of the layer;
      c. have a minimum slope of two percent;
      d. be free of materials that because of their physical, chemical or biological characteristics may cause or contribute to an increase in the permeability of the liner or otherwise cause a failure of the liner; and
      e. be compacted to minimize void spaces and support the weight imposed by the waste disposal operations without settling so as to cause or contribute to the failure of the liner or leachate collection system.
   2. **Flexible Membrane Liner Standards.** Flexible membrane liners shall:
      a. be of sufficient thickness as determined by the Department;
      b. be constructed to ensure that the seams connecting FML panels are of equal or greater strength than the panels or manufacturer's seams within panels and are oriented parallel to the slope and not across the slope;
      c. have sufficient flexibility and strength for the proposed application, taking into consideration tensile strength, puncturability, stress cracking and chemical compatibility; and
      d. be capable of being seamed to produce leak-tight, high-strength seams that retain their integrity during liner installation, operating life and the post-closure period.
3. Mine Waste Regulation in Maine

Contact Information

Mining Coordinator
Mark Stebbins
mark.n.stebbins@state.me.us
(207) 287-3901

Maine Department of Environmental Protection
http://www.maine.gov/dep/index.shtml
Land Use Regulation Commission
http://www.state.me.us/doc/lurc/lurchome.htm
Maine Mining Program
http://www.state.me.us/dep/blwq/docstand/miningpage.htm
Article 8-A: Performance Standards for Quarries
http://www.state.me.us/dep/blwq/docstand/statart8A.pdf

Summary of Metallic Mineral Exploration, Advanced Exploration and Mining Law (06-096 Chapter 200 and 04-061 Chapter 13)

- 83 definitions of mining terms and other terms relating to wastes, regions, locations, etc.
- Permitting and application rules include a baseline monitoring plan, a pre-application conference, a submission of an Environmental Impact Report (EIR) and a consolidated permit application.
- 27 regulations regarding the proper operation of facilities, solid waste facilities, a duty to provide information demanded by the Department of Environmental Protection or the Land Use Regulation Commission (e.g. monitoring records, construction records, etc.).
- Requirements for exploration and advanced exploration include the following:
  - The Department and/or the Commission may enter any exploration site, take samples, and conduct tests in order to determine compliance with any provision of this rule or other applicable requirements.
  - Any person conducting exploration activities shall notify the Department and/or the Commission orally within 24 hours and in writing within 5 working days of any activity or occurrence during the course of exploration or reclamation which has the potential to damage public health or the environment.
- Various performance and management requirements that regulate the discharge of pollutants into groundwater.
- Legislation recommending ten types of tests to monitor pollutants and chemicals.
- Waste management regulations including lined landfills for potentially dangerous wastes, runoff management, and waste reduction policies.
- Liner systems, leachate collection systems, and other protective measures are required for the waste disposal pits which contain the most potentially dangerous mine waste.
• A pit (waste unit) cannot lie within 300 feet of a body of surface water or overlay complex hydrogeology.
• Quarries and waste units are monitored by post-closure laws.

Summary of Policies and Procedures Under the Site Location Law (06-096 Chapter 372)
• This law concerns the application and approval process of siting mining and other development sites in Maine. This document provides criteria which development sites must satisfy to gain approval, including:
  o Potential environmental threat of the development to the “character, quality, and uses” of the land, water, and air.
  o Potential threat to public health and well-being.

Summary of the No Adverse Environmental Effect Standard of the Site Location Law (06-096 Chapter 375)
• This law regards environmental concerns, such as air, water, and soil contamination (including quality and quantity of surface and groundwater), soil and sediment erosion, noise pollution (including specific dBA levels and 24 separate definitions of different sound and noise types and levels), preservation of historic sites and unusual natural areas, and effects on “scenic character.”
• Includes a section on local climate change regarding rainfall, fog, and relative humidity
• Each of the following issues has its own outline of preventative steps. Many do not have numerical standards or guidelines, and it seems that companies regulate themselves in these cases:
  o Measures to limit air pollution
  o Regulations against altering natural drainages to an “unreasonable” degree
  o Protection of existing runoff/infiltration relationships
  o Sedimentation control in rivers (i.e. facilities that are constructed to divert water flow must keep the water from reaching an erosive speed; suspended solids generated by increased soil erosion will be removed from runoff before it enters rivers)
  o Surface and ground water quality and quantity

Contact Information

Robert P. Minicucci  
NH Department of Environmental Services  
29 Hazen Drive  
PO Box 95  
Concord, NH 03302  
rminicucci@des.state.nh.us  
(603) 271-2456

State Geologist  
David Wunsch  
(603) 271-6482

NH Department of Environmental Services  
www.des.state.nh.us  
Geologic Information  
www.des.state.nh.us/asp/geology

Regulation of Mine Tailings*

- Mine tailings are classified as solid waste and regulated as such.
- They are exempt from hazardous waste classification under the Bevill Amendment, and are regulated at the state level, in accordance with EPA regulations.
- Mining today is somewhat of a moot point because it is almost entirely a thing of the past (metal mining is New Hampshire ended decades ago). There are sand, gravel and building stone operations and some crystal/semi-precious gem mining at the hobby and tourist scale. However, if mining were occurring, under solid waste disposal regulations, mine tailings would still have to be disposed of properly in order to prevent leaching. This means that mine tailings would have to be stored in a facility that is properly designed and operated.
- The only mine tailings problem that the state of NH is dealing with is an old tailings pile that is in direct contact with a stream. The upper reaches of the stream are highly acidic and sterile. This pile is in violation of surface water regulations. The DES is planning to pick up the 10,000 cubic yards of tailings, process them, and place them in a lined landfill with leachate collection and monitoring systems.
5. Mine Waste Regulation in New York

Contact Information

NY Department of Environmental Conservation, Division of Mineral Resources
http://www.dec.state.ny.us/website/dmn

Bradley Field, Director Mineral Resources Division
(518) 402-8076
dmnmine@gw.dec.state.ny.us

Regulation of Mine Waste

- Mine waste is a byproduct of the mining operation. All tailings must be PURE. Companies are not allowed to treat their tailings with any chemicals and therefore the mine waste is classified as solid waste always.
- Mine tailings are regulated through a permit process. Companies are issued a 5-year permit that must be renewed every five years.
- Storage of mine waste can occur within the permit area and nowhere else.
- Mine waste is required to produce NO runoff or wind pollution.
- There is mine waste currently being produced in NY—40 different minerals/materials.
- There is limestone mining (calcium carbonate) in NY, but no OMYA plants in the history of NY.
6. Mine Waste Regulation in Vermont

Contact Information

Agency of Natural Resources, Department of Environmental Conservation, Waste Management Division
103 South Main Street, West Building
Waterbury, Vermont 05671-0404
(802) 241-3888

Vermont Solid Waste Management Rules

Summary of Solid Waste Management Rules

- Solid waste facilities covered by this law are required to minimize discharge of contaminants and to protect surface water and groundwater (6-606a).
- Discrete disposal facilities, under which OMYA would fall, are mandated to contain liner and leachate collection systems (6-606b2A). All liner systems installed after 2/07/89 are to be of double liner construction—the primary layer made of synthetic material, the secondary layer a choice of natural or synthetic materials (6-606b2E). Other protective measures include a gas collection layer, control of surface water runoff, and provisions for slope of the land (6-606b2H-M).
- However, exemptions are granted to “earth materials resulting from mining, extraction, or processing operations except where the Secretary determines that these materials may pose a threat to public health and safety, the environment, or cause a nuisance” (6-301b2).
B. Pesticides and Biocides Regulation

Since pesticides and biocides are the components of the OMYA tailings of most concern, research was also conducted regarding the regulation of pesticides and biocides at the international, national, and local level. Key findings and web pages are listed below.

*International Level:*

Biocide Regulation in OECD countries
http://www1.oecd.org/ehs/Biocides/links.htm
“This page aims to provide information on biocide regulation in OECD Member countries, indicating for each Member country the responsible Ministries/Aogencies and contact points. This information reflects the national procedures that were in place mid-1998.”

*National Level:*

EPA Office of Pesticide Programs (OPP)
http://www.epa.gov/pesticides

EPA Antimicrobials Division
http://www.epa.gov/pesticides/activity.htm#Antim
The Antimicrobials Division is the main regulatory agency responsible for the registration of antimicrobial pesticides.

U.S. Food and Drug Administration (FDA)
http://www.fda.gov/
The FDA is the responsible regulatory agency for the authorization of biocidal products used as personal health care disinfectants. Furthermore the FDA together with EPA/OPP are the responsible regulatory agencies for biocidal products used in medical premises and equipment, and material preservatives.

EPA Website: Types of Pesticides
http://www.epa.gov/pesticides/about/types.htm
This page is organized by type of pest they control and whether they are chemical or derived from natural sources like plants, animals, bacteria, or minerals.

EPA Website: Regulating Pesticides
http://www.epa.gov/pesticides/regulating/index.htm

EPA List of Minimum Risk Pesticides
http://www.epa.gov/oppbppd1/biopesticides/regtools/25b_list.htm

EPA Pesticide Tolerances
http://www.epa.gov/pesticides/regulating/tolerances.htm
http://www.epa.gov/pesticides/factsheets/stprf.htm
EPA sets limits on the amount of pesticides that may remain in or on foods. These limits are called tolerances. The tolerances are set based on a risk assessment and are enforced by the Food and Drug Administration.

The pesticide tolerances that were in place as of August 1996, when the Food Quality Protection Act was signed, are subject to reassessment. This reassessment process is scheduled for completion in 2006.

Tolerances for pesticide residues in foods are published in the Code of Federal Regulations. Some pesticides are exempted from the requirement to have a tolerance.

**Vermont:**

In the state of Vermont, pesticides are regulated by the Vermont Agency of Agriculture’s Plant Industry & Laboratories Division. Key contacts are listed below.

Philip R. Benedict  
Director, Plant Industry & Laboratories  
(802) 828-3472  
phil@agr.state.vt.us

Wendy Anderson  
Pesticide Training & Certification  
(802) 828-3475  
wha@agr.state.vt.us

Cary Giguere  
Pesticide Research and Information Specialist  
(802) 828-2431  
cary@agr.state.vt.us

Nathaniel Shambaugh  
Chemist-Pesticides  
(802) 244-4510  
nat@agr.state.vt.us

Vermonters for a Clean Environment—Pesticides Used by OMYA  
http://www.vtce.org/omyabio.html
C. Interviews with Florence Residents

In order to better understand the perspectives of Florence residents on OMYA and the tailings pile controversy, we interviewed several residents of Florence. Logistical constraints and our desire to conduct the interviews in person, limited our study size to four people. Of the four interviews conducted, three names were received through RCO and one was chosen randomly from a phone book listing of Florence residents. Although the sample size was small and the proportion of RCO members was unrepresentative of the population in Florence, we do feel that these interviews reflect the views of Florence residents. The answers we received were diverse, but there were clear trends in thought. Listed below are the questions asked of each interviewee and transcripts of the interviews follow. Our comments and clarifications appear as parenthetical additions to the text.

Interview Questions:

- How far do you live from the OMYA plant?
- How long have you lived in Florence?
- Do you have a relationship or affiliation with OMYA?
- Do you consider OMYA to be a good corporate citizen?
- Are you afraid for the quality of the air or drinking water in Florence?
- (If applicable) How has life in Florence changed since the arrival of OMYA?
- Are you aware of the recent issue with the proposed tailings pile?
- What would be your ideal solution to the tailings pile controversy?
- What do you think of Vermonters for a Clean Environment (VCE), Residents Concerned About OMYA (RCO), and the Toxics Action Center (TAC)?
- Would you want to hear more from these groups?
- Would you like more of a voice in the tailings pile process?
1. Interviewees A & B

How far do you live from the OMYA plant? 1.5 miles.

How long have you lived in Florence? Since 1947 (A) and 1943 (B). Over this time, the facility has been VT Marble, then White Pigment, and then OMYA. OMYA arrived in 1982.

Do you have a relationship or affiliation with OMYA? Interviewee A worked for White Marble and subcontracted under OMYA. He stopped working for them in 1985.

Do you consider OMYA to be a good corporate citizen? Not really. OMYA didn’t provide job opportunities for local people, didn’t give jobs to people that had worked in the local plant. The local workers used to be unionized, and OMYA opposes its union (if one exists?). OMYA does, however, contribute money to the school, helps students with scholarships when asked, opens its facility to field trips for the Scouts, and pitches in on “Green-Up” day, with employees cleaning up along the truck route.

Are you afraid for the quality of the air or drinking water in Florence? Personally, we are not (they live on other side of the mountain and get their water from a different source). But, we are positive that OMYA has contributed to polluting the water of Florence’s water supply. Smith Pond used to be clear, it is now not. The painted turtles are no longer there. OMYA spills run into Smith Pond, and then Otter Creek. There used to be nice fishing, but not anymore. Even aside from the spills, we find that water quality is poor (probably due to OMYA).

Some wells now have a sulfur taste in their water, which didn’t used to be. Some had to re-drill, or bring in their drinking water. Water levels in wells are lower, now people have to dig deeper (over 500 ft. deep). Some need to use a hydro-fracturing procedure to get water. We believe OMYA’s blasting has contributed to this.

OMYA’s blasting has also affected the town’s water supply in a different way—wells have gone dry. A well that used to maintain a cattle farm and the household (now, there are no cattle) has gone dry over a few summers. Other wells have gone dry too. OMYA did drill someone else another well.

Florence used to get its water supply from Fox Rock—on OMYA property. About ten years ago, OMYA put in wells by Otter Creek and Fox Rock is now a puddle.

How has life in Florence changed since the arrival of OMYA? The volume of traffic through Whipple Hollow Road is much heavier now. OMYA’s tractor-trailers have, a few times, run over our mailbox. We complained to OMYA and never heard back from them.

Traffic is the biggest issue. Brandon especially complains. Most shipping used to be by rail, now it’s more by trucks.
There is also a lot of dust on roads. When you wash windows, after 2 weeks it doesn’t look washed. This film is gritty, and is harder to get off. However, OMYA has contracted a section of the road, takes care of it (waters it) instead of the town, and does a good job.

Noise pollution used to be much worse, now it’s a constant hum.

OMYA is buying up the town’s houses. If you complain, OMYA will offer to buy you out. People pay $200/month or less in rent (even on whole farms) for houses that OMYA now owns. You feel as if you’re being pushed out by OMYA.

Now, land is posted and not open to everyone.

We feel that it’s the newer people, the “flatlanders,” in Florence and Pittsford that are complaining most about OMYA. They wanted the ideal Vermont setting and modernization.

You see some bumper stickers: “We Support OMYA” (the company that does OMYA’s trucking, Carter’s). Other bumper stickers: “Watch out for truck traffic on Rte 7 because of OMYA.”

Are you aware of the recent issue with the proposed tailings pile? We have read about it in the papers. It will not affect this side of the mountain, but will affect people in Florence (they were not aware of the proposed size of the tailings pile).

What would be your ideal solution to the tailings pile controversy?
There’s no other option, where else should the waste go?

What do you think of VCE, RCO, TAC? I (Interviewee B) hear from the local groups through my job at the school.

Would you want to hear more from these groups? We wouldn’t want to be involved.

Would you want to hear more from OMYA? OMYA has a booth at the Rutland Fair and Essex field days, where you can get info. They also have an open house twice a year. At these times we do read up on OMYA, and are satisfied.

Do you want more of a voice in the tailings pile process? No. There’s a mountain between our house and OMYA, we’re not in the valley area. The pile won’t affect us.
2. Interviewee C

How far do you live from the OMYA plant? 0.5 miles.

How long have you lived in Florence? 25 yrs. Approximately when I moved to Florence, OMYA bought out the facility from White Pigment (the facility had been VT Marble, then White Pigment, then OMYA).

Do you have a relationship or affiliation with OMYA? My father worked at the facility under all three ownerships, over 40 years. He retired in 1996. I also have acquaintances that work there.

Do you consider OMYA to be a good corporate citizen? No, they don’t care, particularly about water quality. However, they did once compensate me for a furnace and windows that broke due to OMYA’s blasting (1-2 yrs ago). OMYA did not know about RCO until she called them at that time to complain. Tom Sawyer (OMYA environmental health and safety officer) tries to comfort the residents. They do help the town.

Are you afraid for the quality of the air or drinking water in Florence? Very much. Diabetes and cancer have plagued my street, and my father and my cat have suffered from diabetes. In the last 25 years, I’ve lost 4 dogs to cancer.

OMYA’s runoff goes to Smith Pond and then Otter Creek. A swale from the plant runs east to the town’s water supply. Concerning the new tailings pile, OMYA’s argument has been that water only runs north and south, but here is an example where it runs east. Most people have to drink the town’s water. At OMYA, they use bottled water.

I foresee an increase in dust with the new dump.

How has life in Florence changed with OMYA? All the houses used to be owned by VT Marble. When OMYA came, people owned their own houses and took care of them. Now, OMYA is buying back all of the houses (method of control).

OMYA has brought a huge increase in trucking in Florence. One tractor-trailer goes by my house every minute, even on the weekend. There’s lots more calcium dust (OMYA is now washing the street).

OMYA is the tax base. Some think OMYA is great.

Are you aware of the recent issue with the proposed tailings pile debate? Absolutely. She started RCO, and is aware.
What would be your ideal solution to the tailings pile controversy (and OMYA’s general violations)? A temporary injunction—to teach OMYA a lesson. I don’t want OMYA out. In the history of OMYA, they’ve had many spills—the fines don’t bother OMYA.

What do you think of VCE, RCO, TAC? They work hard, especially VCE. We could do more to increase residents’ awareness through mailings and phone calls. Many residents think the tailings pile will only be ground stone, they don’t know about the chemical mixture. It’s good that the issue is making the papers.

Would you like more of a voice in the tailings pile process? I feel like I have little say. But, OMYA applied for the Act 250 permit 1 year ago, and they still haven’t gotten it. It’s a long process, people can’t afford to get involved (lawyers’ fees).

The Water Resources Board hasn’t listened, regarding diabetes. Florence is a sub-town; Pittsford doesn’t want to stir up trouble (would hurt their tax base).
3. Interviewee D

How far do you live from the OMYA plant? Approximately ¾ of a mile.

How long have you lived in Florence? I was born and raised in Florence, moved to Connecticut where my wife and I raised a family, and then we moved back to Florence 3 ½ years ago.

Do you have a relationship or affiliation with OMYA? My son has worked in the lab at the OMYA plant for 8 yrs.

Do you consider OMYA to be a good corporate citizen? They could be worse, but they could also be much more responsible. Comparing OMYA in Florence to IBM (unspecified locale), the town with IBM is better off with IBM than it was before.

In response to grievances, OMYA has bought homes that are adjacent to the plant for prices that are well below market value.

In response to wells going dry, on occasion OMYA has paid for the cost of drilling a new well, as was the case with the O’Keefe’s, who brought OMYA to court.

In general, OMYA has cleaned up its act in the past few years because it knows that it is being watched. Some of the residents do complain about excessive dust, noise, truck and train traffic, and noticeably lower water tables. The degree of these disturbances depends largely on the location of the home and the proximity to OMYA.

Water used to “gush” out at Fox Rock, but now it is down to a trickle. The water table has dropped, resulting in neighbors having to drill wells that are 600-650ft deep. I believe that OMYA is exceeding their allowed water quota, but that no one is willing to say anything because of a combination of reasons.

Noise and stress caused a friend of mine to die of a stress-related heart attack.

Are you afraid for the quality of the air or drinking water in Florence? OMYA employees do not drink the tap water. I wonder about the steam that is discharged, the chemicals that are being discharged. I have my well-water tested regularly.

How has life in Florence changed since the arrival of OMYA? Life has not changed that much as a result of OMYA’s presence, it has only changed for those who are affected. OMYA’s presence has decreased property values because of the noise. Everybody is a little bit more modern, but the types of people are the same. Everybody in the town still works for a living.

Very few people “make waves” about OMYA because OMYA pays a large percentage of the town’s taxes. People who aren’t directly affected don’t really care about what OMYA is doing.
Are you aware of the proposed tailings pile debate? Yes, I am a member of RCO.

What would be your ideal solution to the tailings pile controversy (and OMYA’s general violations)? Potential expansion of the rail line. It is intended to decrease truck traffic in Florence and along the Route 7 corridor from Florence to Middlebury. The rail line will cut down on the noise, as the number of trucks driven back and forth from the quarry to the plant will decrease. However this will not be a solution to the traffic from trucks that travel long distances. In regard to the proposed tailings pile, the pit should be lined just like pits for other dumps, or the waste should be placed elsewhere, away from the town’s water source.

What do you think of VCE, RCO and TAC? RCO, VCE and TAC have accomplished a lot. The vigilance of RCO and VCE has prevented the construction of the tailings pile from simply being “rubber stamped.” RCO has had the most significant influence of the three groups. Annette Smith has been a very helpful resource because she knows her stuff.

Would you (or others) want to hear more from these groups? People in town are interested enough to want to receive a newsletter.

Would you like more of a voice in the tailings pile process? OMYA is listening to citizens and groups such as RCO, VCE and TAC that represent the interests of the residents.
D. Summary of Interview Findings

Impressions of OMYA:

- The residents have very divergent feelings towards OMYA, with some appreciating the plant, some indifferent, and others being opposed.

Concerns about the tailings pile:

- Spills and general discharge from the OMYA plant have negatively impacted the town’s water supply thus far. All interviewees were confident that the tailings pile would continue this trend.
- A significant aspect of the debate is the difference in opinion over which direction the water will flow. Some interviewees claimed that water from OMYA has already been shown to flow west to east. Should water flow east (perhaps only during storms), it would flow down the steep side of the mountain on which the tailings pile will sit, and will flow directly towards the town.
- OMYA has not had an independent hydrologist come. OMYA did not drill any test wells on other sides of the tailings pile (in the direction of the town), rather, only on the side toward which they maintain all the water will flow.

Differences between those residents involved in RCO and those uninvolved:

- In terms of familiarity with the issue of the tailings pile, those unaffiliated with RCO were less familiar with the concerns and less concerned themselves. One interviewee was not aware of the scale of the proposed pile.
- Those unaffiliated find that there’s no other option for disposing of the waste. Those affiliated with RCO demand a lined landfill, and harsher penalties for OMYA’s other transgressions.
- Those unaffiliated generally do not want to be involved with VCE, RCO, and TAC. They do not want more of a voice in the tailings pile process. In contrast, RCO members would like a larger say.
- Only RCO members cited cancer and/or diabetes as being a community phenomenon connected with water pollution by OMYA.

All interviewees were in agreement on the following:

- OMYA has, over time, negatively affected the quality of local surface water, in addition to the town’s water supply. Smith Pond has turned from clear to dirty, and there are no more fish in the pond.
- OMYA is not a good corporate citizen for a number of reasons. OMYA is generally (supposedly) unaware of, and unresponsive to complaints. However, it does help out the town through financial contributions, etc., and OMYA is responding to the town’s concern about increased dust.
- They did not want OMYA to leave the community. Florence is better off with OMYA than without.
Other community concerns about OMYA:

- According to the interviewees, even though many Florence residents would rather not “make waves,” they still complain about the problems connected with OMYA.
- Sulfur taste of well water.
- Lower water levels in wells.
  - As the water table has dropped, residents have had to dig much deeper wells (500 – 650 ft.).
- Suspicion that OMYA is exceeding allowed water quotas.
- Increased traffic through the town.
- Noise pollution.
  - Those most bothered by OMYA’s noise pollution live “up on the hill,” farther from the OMYA plant located in the valley. However, residents that live close to the plant are faced with increased traffic and dust.
- Dust on roads, windows, etc.
- Increased property ownership by OMYA.
  - OMYA is buying up the town’s houses as a method of control, and now owns a large proportion of town property. According to one interviewee, only 3 houses in the neighborhood at the base of the hill (just past the pond when coming into Florence) are not owned by OMYA.

Other issues brought up during the interviews:

- Potential increase in dust with the dump.
- Some residents are unaware of the chemical mixture going into the tailings pile.
- Pittsford, the government that apparently administers over OMYA, is not concerned with, or responsive to, Florence residents.
- OMYA is behaving as a better corporate citizen in recent years because “it knows it is being watched.”
IV. RECOMMENDATIONS

DEC Commissioner Wennberg reversed his initial decision in a late November, 2003 ruling. This final decision defines OMYA’s tailings as solid waste and would require OMYA to apply for Solid Waste Certification. Within the Solid Waste program, though, there are various ways to proceed and there are options that would not require lining the pile. Commissioner Wennberg’s decision carried additional stipulations and even went so far as to require investigation of OMYA’s existing tailings piles. While this indeed was good news, there are other pertinent issues to address and this by no means closes the case against OMYA, Inc. in Florence, VT. Listed below are some of our recommendations for future work.

Documenting and drawing media attention to public perception of the tailings pile issue:
- Continue the work that was started with our interviews.
- Circulate a questionnaire that addresses how residents feel about living with OMYA as they influence taxes, increase noise, influence property values, change the water table, etc.
- Draw media attention to residents’ opinions of OMYA
- Raise public awareness outside of the towns of Florence and Pittsford

Strengthening VT mining and waste regulations:
- Write to legislators pressuring them to adopt stricter laws or at least hold corporations such as OMYA more responsible (stricter regulations and greater oversight).
- The state should consider requiring chemicals-laced tailings such as those produced by OMYA to be stored in a lined pit.
- Investigate mining and waste disposal laws that regulate OMYA processing plants in other U.S. locations: Lucerne Valley, CA; Superior, AZ; Sylacauga, AL.

Pesticides and chemicals use at the Verpol plant:
- Petition the VT Agency of Agriculture to de-list the pesticides currently used at OMYA’s Verpol plant.
- Draw media attention to OMYA’s use of chemicals, which would increase awareness on a state-wide or region-wide basis.
- Conduct an independent (3rd-party) hydrological survey of the site of the proposed pile. Drill groundwater monitoring wells on all sides of the proposed pit and test for chemicals reported in the tailings.
- Focus efforts on researching health affects associated with chemicals that are in the tailings.

Other Recommendations
- The state could work to enhance the rail system that connects markets and mining operations to the Florence plant. This would decrease truck traffic through Florence and along the already crowded Rt. 7 corridor.
- Increase communication with citizens’ groups by providing more feedback and suggestions for next steps.
V. REFLECTIONS

Throughout this semester, our understanding of the OMYA tailings pile controversy in Florence, VT changed several times. As we were introduced to more of the actors involved, and experienced some of the frustration seen by groups like RCO over the long term, we saw our initial assumptions break down and our expectations violated. Here, we’ve recorded our experience in navigating this process, our initial perceptions and goals, and how they changed over these past three months. Essentially, we now have a better appreciation for the complexity involved in such cases, the difficulty in maintaining objectivity, and the dissatisfaction that comes with knowing an injustice of some sort is taking place, but not knowing how to remedy it through the legal system.

Initial perceptions of the tailings pile controversy:
- This would be a story akin to the plot of Erin Brokovich, a simple narrative of David vs. Goliath and good vs. bad.
- One can always refer to state regulations to solve environmental problems.

The evolution of our perceptions:
- After visiting the OMYA plant, we were more willing to accept the possibility that OMYA is, in fact, a good corporate citizen. However, after speaking with Annette Smith from VCE, we were also willing to consider the validity of her suspicions: that OMYA often covers up its environmental offenses and is probably distorting the truth about the health hazards associated with the proposed tailings pile.
- Lack of information proved to be a problem (especially as we only acquired OMYA’s tailings pile characterization, listing chemical contents of the waste, at the end of the semester).
- There has been no independent investigation of the tailings characterization, and it is very possible that OMYA’s investigator was biased in his assessment.
- There is no absolute truth in this environmental justice case. Along these lines, we were confronted with the overwhelming obstacle of deciding whom to trust, and often felt somewhat paralyzed by this.
- The state regulations were not clear, and seemed somewhat flexible; it was difficult to draw conclusions from Vermont’s regulations. The Vermont Solid Waste Management Rules stipulate that solid waste landfills should include a double liner system. However, exemptions are made for earth material that does not pose a threat to human health, and this characterization of the waste is obviously a matter of opinion.
- The issue is not simple, after all. From what information was available to us, we cannot say with certainty that OMYA is violating any environmental regulations, or that the tailings pile will damage public health.

Initial goals:
- Interview a representative of OMYA, perhaps Tom Sawyer. Obtain OMYA’s position on the tailings pile debate, understand OMYA’s perception of the risk to
public health, and get as much information as possible on the composition of the tailings pile.

- Contact Pat Parenteau, lawyer associated with the Environmental Law Clinic of the Vermont Law School, and ask for guidance from him.
- Contact DEC Commissioner Wennberg and request that the state of VT conduct independent, unbiased hydrological research of the OMYA property and an analysis of the chemicals in the waste tailings.
- Research mining waste regulations in the New England states, hopefully building a case to pressure Vermont into creating tougher laws.

**Final goals:**

- Research mining waste regulations in the New England states, hopefully building a case to pressure Vermont into creating tougher laws.
- Research how the FDA regulates biocides.
- Document OMYA’s impact on Florence residents through a series of interviews, in order to characterize the relationship between OMYA and the town.

We chose not to tackle another goal offered to us by Alyssa Schuren, that being to research OMYA in terms of RCRA, the history of RCRA in Florence, and past experiences with RCRA at other OMYA sites and other mining sites. We investigated this option and found the laws too difficult to untangle, and felt that we had enough on our plates trying to understand mining waste laws of the New England states.
VI. CONCLUSION

Having read and discussed environmental justice throughout the semester and having participated in this project we are finally able to see the benefits of environmental justice. The fact is you cannot separate the environment from political and social issues. The environment is just the setting for larger social injustice.

John Muir once said that “when we try to pick out anything by itself, we find it hitched to everything else in the universe.” This is the vision of environmental justice. Every thing we do as humans effects everything we do as humans. It affects the way we live our lives and the quality of life we live. Everything that happens in the world is tied in with everything else. Environmental justice provides a framework for understanding this. It takes our impacts on the “natural” world and puts them right back in our faces and lets us know that we cannot hide from them forever. They are already starting to affect us, and if we do not do something soon, there will be nothing left to do.

http://www.omya.com/e/history2.htm
http://www.omya-na.com/about.htm
http://www.omya-na.com/1.1.11.htm
http://www.vtce.org/insideomya.html
http://www.vtce.org/understandingomya.html
http://www.omya-na.com/1.1.1.1.htm
http://www.imcc.isa.us/pubs/noncoal.html