

Section 5 Study Oversight Team Meeting Summary

Place: Oak Room at 49 Main St, Proctor, VT

Date: Wednesday, January 2nd 2008 [with follow-up call Friday, Jan 4th]

Time: 3:00 p.m.-7:00 p.m. [plus conference call 2-3:30 pm (1/4/08)]

Meeting Attendees (in alphabetical order):

Name	Affiliation
David Adilman	Geosyntec
Michael Ames	Cambridge Environmental
Claire Ayer	State Senate
Ernie Brod	RCO (alternate)
Tony Colak	Omya
Anna Conterato	University of Vermont
Emerson Frost	Florence (alternate)
Laura Green	Cambridge Environmental
Julie Hackbarth	ANR
Britt Holmen	University of Vermont
Mike Laurent	Omya (alternate)
Matt Levin	VCE (alternate)
Don Nickless	Pittsford
Bev Peterson	RCO
Jo Anne Shatkin	CLF Ventures
Annette Smith	VCE
Jasmine Tanguay	CLF Ventures
Dano Weisbord	CLF Ventures

I. Welcome and Introductions

- Facilitator Dano Weisbord welcomed the group. He provided an overview of the meeting by reviewing the proposed agenda. Meeting participants introduced themselves and their affiliations.

II. Approval of meeting summary for November 27th Meeting

- CLFV distributed copies of the draft meeting summary for the November 27th meeting.
- As a result of feedback received earlier in the day, some adjustments to the Section III of the meeting summary were made, and CLFV also distributed text that replaced Section III of the previously distributed summary. The group engaged in a brief discussion of the content of Section III and additional appropriate changes to the text.

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- Annette Smith requested that the AEEA section be supplemented to contain a level of detail similar to other sections. Jasmine Tanguay said she would work with Laura Green to add technical information to the section.
- Bev Peterson raised an issue with how the noise presentation was represented and presented her recollection of Dr. Copley's statements. Jasmine said she would confer with Dr. Copley to check the accuracy of the section.
- Given the additional work to be done on the summary, the revised version will be circulated once more to the Oversight Team before being posted to the OmyaInVermont.net website.

III. Presentation Of Preliminary Phase II Findings

- Laura Green introduced members of the scientific team whom some of the OT had not yet met: Mike Ames, Britt Holmen and Anna Conterato.
 - a. Tenets of toxicology and chemistry of flotation agent**
 - Dr. Green presented a brief overview of toxicological principles. She noted, "Everything is toxic; the dose makes the poison."
 - Different chemicals have different potencies. Risk equals dose times potency. Dose requires exposure. Exposures are typically via ambient air, drinking water, or food. Ambient air is nearly always a completed exposure pathway.
 - She explained the chemistry of the flotation agent (FA). FA is a mixture of semi-synthetic organic chemicals to be added to that water so that the non-calcium carbonate ore can be floated out. Flotation agent is primarily comprised of a fatty byproduct of pulp/paper mills, tall oil or liquid rosin.
 - Through fractional distillation, fatty acids can be distilled out as essentially a pure product. This fatty acid, which is a natural chemical, then becomes a semi-synthetic chemical because this synthesized part (which is called an imidazoline ring) is formed from the presence of aminoethyl-ethanolamine. Ideally, all this aminoethyl-ethanolamine would be used up, but in this case it is not. This residual aminoethyl-ethanolamine is what's potentially dangerous in the tailings.
 - Dr. Green displayed a graphic of the West Plant showing inputs and outputs of the flotation tank, including product and tailings. Tailings are the waste, simply, of any beneficiation of ore, or anything else--they includes water and solids. When the tailings come out of these flotation tanks, they're 90% water with the dissolved aminoethyl-ethanolamine which is essentially wastewater, and 10% minerals.
 - b. Update on Conceptual Exposure Model and Fate and Transport**
 - The original CEM didn't include the Hogback Quarry because at the Phase I stage we hadn't yet confirmed it as a likely source.
 - Perchlorate found in settling basins at the Hogback meant it needed to be added to the revised CEM.

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- We've also added the arsenic released from bedrock and possibly from tailings, migrating north, possibly off site.
- In terms of AEEA, if discharges were made at the permitted outfall, it would constitute an ecological exposure. In terms of persistence in the environment, AEEA is likely subject to biodegradation: "bugs eat it as a carbon source"
- Geosyntec also showed updated groundwater gradients for the site.

c. Methods and results of Dust study

- Cambridge Environmental (Dr. Ames) and Britt Holmen's team from the University of Vermont presented their dust study methods and findings.
- Dust in air is higher at and near Verpol truck routes than elsewhere; dust in neighborhood air from tailings, if any, could not be discerned. The elemental analyses of dust sources suggest that at least some of the dust on truck routes is due to Omya sources.
- Omya's *on-site* operations were not a direct, measurable source of dust in the area during the study period.
- Overall, the primary measured dust concentrations at the nine sites are comparable to the lower range of average TSP concentrations historically measured in Vermont under U.S. EPA's air quality monitoring programs.
- Regional transport of particulate matter is an important source of dust at all monitoring locations – perhaps the most important source overall (a finding consistent with the generally similar dust levels observed among the sampling locations).
- The increases in dust levels at these locations were not correlated with being either downwind of, or closer to, tailings management areas or mineral processing operations.
- Even if unusually sizable quantities of dried tailings dust were blown off site, air quality would be no more degraded than if similar quantities of ordinary soils were liberated into ambient air under high-wind conditions
- Air quality in the neighborhood was not found to be detectably affected by dust blown directly from the Site, but air along and near the truck route to and from the site was found to contain more dust than air at nearby but less heavily trafficked locations
- The primary dust concentrations at the sampling sites suggest a distinct, localized elevation in dust concentrations along the Omya truck route indicating that dust levels along the truck route are similar to levels found along roads that carry more traffic. Overall, these data indicate that dust concentrations along the truck route are approximately 50-100% greater than at other locations in Florence.
- Ernie Brod asked why samplers weren't located on tailings pile itself. The scientists responded that the tailings piles do not appear to be a source of significant dust, and little dust escapes the site. It is possible that, under conditions that did not occur during our study, fugitive dust blown from the TMAs might affect local ambient dust levels. Yet even the modeled concentration is likely to be a significant over-estimate because it does not account for (among other factors) the effect of the trees near and just off the site to both reduce the wind speeds at the roadway surfaces, and filter out dust blown into the air.

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IV. Next Steps

a. Upcoming activities

- Dano Weisbord reviewed several upcoming meetings that have been scheduled or will be scheduled shortly. A discussion of the Section 5 Study findings among consultants, ANR, DoH, and others will be held in Waterbury, tomorrow, Jan. 3, 2008. The scientists will be holding a discussion of Section 5 Study findings with VCE/RCO and other neighbors on a date to be determined in the coming weeks. CLFV is helping to set up a meeting for the consultants to present their findings in a community forum to residents of Pittsford/Florence and other interested parties.

b. Discussion of proposed Study due date extension

- The group engaged in a lengthy discussion about the possibility of requesting an extension from the Legislature to deliver the report approximately one month later than the legislation requires it.
- The group discussed the importance meeting the deadline and the likely legislative response to such a request. Senator Ayer said that a formal extension would require a rule suspension and approval from all four committee chairs. It could be added to the budget adjustment bill for approval by the legislature.
- Annette Smith noted that these deadlines are routinely treated with a great deal of flexibility and Omya shouldn't have a problem if they ask for an extension.
- Tony Colak said that the process thus far has been characterized by "good work and collaboration." He said he hopes this will continue after the submittal date. He expressed a desire to fulfill the legislative obligation and address any outstanding issues even after the report goes in.
- Annette Smith said that if we keep to the January 15th deadline "it increases the likelihood" that VCE would feel it necessary to make independent comments on the report and suggested this would be unfortunate.
- The group explored the topic of what activities would happen during the month extension. Laura Green explained the tasks that her team would like to complete during that time period, such as additional data analysis, meeting with ANR and neighbors, and allowing more time for feedback on the draft report.
- The meeting was running over-time, and an agreement had not been reached on whether to request an extension, so the group decided that it would continue the discussion on a conference call. The call will be held on Friday January 4th at 2pm. (The summary of this call is appended below).

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January 4th Conference Call Participants (in alphabetical order):

Name	Affiliation
David Adilman	Geosyntec
Tony Colak	Omya
Laura Green	Cambridge Environmental
Julie Hackbarth	ANR
Mike Laurent	Omya (alternate)
Matt Levin	VCE (alternate)
Don Nickless	Pittsford
Bev Peterson	RCO
Jo Anne Shatkin	CLF Ventures
Annette Smith	VCE
Jasmine Tanguay	CLF Ventures
Dano Weisbord	CLF Ventures

- Don Nickless asked for a characterization of the rationale for a delayed submittal. Annette Smith further explained the rationale presented at the 1/2/08 meeting to the group. The group considered various options (a draft submittal, an incomplete submittal, no submittal, a complete submittal).
- Tony Colak asked whether we could be certain the report could be completed given an additional 30 days. “Every deadline agreed to at the end of this call will be delivered on, you have my word,” promised Laura Green.
- After an extended discussion, Mike Laurent proposed that the presentation the consultants made to Oversight Team and ANR earlier in the week be made into a deliverable for the legislature—and that the group request that the consultants be granted another 30 days to complete the final report. The deliverable would serve as a “progress update- a demonstration of where we are.” The group agreed to this proposal.
- Laura Green agreed to work with her team to explore a deliverable based on the presentations that might work for the legislature. The consultants would also provide them an outline and table of contents for the Integrated Report.
- Cambridge Environmental and the Oversight Team agreed to draft letters that could be submitted with the materials on January 15th explaining the rationale for the extension request. CLFV agreed to work on mechanics of extension request documentation and submittal delivery.