

WORK ORDER NO. 2
AIR EMISSIONS EVALUATION
For
ROCK-TENN ENERGY FACILITY STUDY

This Work Order is pursuant to the Professional Services Agreement between Barr Engineering Company (Barr) and Market Street Energy Company, LLC (MSE) dated October, 31, 2007. The terms and conditions of this Professional Services Agreement apply to the Scope of Work described in this Work Order.

SCOPE OF SERVICES:

Barr shall prepare the following:

1. A summary of permitted emission limits for biomass energy sources of relevant size in Minnesota and other states.
2. As directed by the technology review efforts of the study, research and prepare a summary matrix of air emissions rates (lb/hr, lb/MMBtu, tpy) by fuel type, energy conversion configuration and emission control scenario. Emissions to be researched are those listed as criteria pollutants, CO₂ and Hazardous Air Pollutants (HAPs). [Legislative Grant Item 3]
 - a. Prepare a summary of air emission control costs to address those pollutants that affect human health.
 - b. Provide a report to document emission factor sources and emission calculation methodology.
3. Air emission comparisons, including:
 - a. A comparison of emissions between proposed biomass energy conversion configurations, historical High Bridge power plant emissions and Rock Tenn's existing energy plant emissions that correspond to the delivery of Rock-Tenn's energy demand.
 - b. Determination of the project's carbon footprint (i.e., closed loop carbon vs. non-renewable carbon within the envelope of the project) compared to the existing plant operations.
4. Materials for presentation to citizen's panel.

Participation in a project kick-off meeting is included in this work order.

SCHEDULE FOR DELIVERABLES

Services in this scope of work will be provided during the Facility Study phase of the project, which extends through the 1st Quarter of 2008.

1. Summary of existing permitted projects by November 16, 2007
2. Air emissions rates and control costs summary by February 1, 2007
3. Comparison of proposed, High Bridge and existing Rock Tenn emissions by February 1, 2007
4. Materials for presentation to citizen's panel by February 1, 2007

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Project Team

Principal: Rich Hardegger;
Project Manager: Chandler Taylor;
Project Advisors: Joel Trinkle, J.Wachtler
Control Technologies Engineer: Jack Kennedy
Air Quality Engineers: Matt Peters, Gina Lott

ASSUMPTIONS AND CLARIFICATIONS

- Assume bi-weekly project team meetings to communicate status or to review deliverables. Meetings to present emissions information to RCAP are included within the scope of Work Order 1.
- Information and data generated by this Work Order will be used to address EAW information requests and for preparation of an eventual air permit application.
- Assume that not more than ten projects with relevant size and biomass criteria will be found and summarized.
- Assume emission evaluations for six fuel types, up to four energy conversion configurations and up to 3 control scenarios. The evaluations do not include fuels or by-product material handling.
- Unless otherwise provided, Barr will prepare control equipment cost estimates from EPA cost references or preliminary vendor quotes. Assume potentially 12 (4 emission units X 3 control systems) cost estimates.
- Barr will use published information on biomass energy conversion emissions. This work order does not include or approve testing of biomass fuels.
- Rock-Tenn will provide a carbon balance for the existing plant. Barr assumes that the Rock-Tenn information will be ready to incorporate into the comparison without significant changes.
- Presentation materials will consist of summary table handouts and a PowerPoint presentation of not more than 20 slides.
- This work order scope does not include a formal permitting applicability analysis.