PRELIMINARY DRAFT Dated AUGUST 4, 2008

The Saint Paul Port Authority's Executive Summary Including Recommendations of its Preferred Alternative for an Eligible Energy Technology Fuel Mix for Rock-Tenn

After a year of study and more than 22 meetings with citizen volunteers participating as members of the Rock-Tenn Community Advisory Panel (RCAP), as well as input from other interested citizens and the City of Saint Paul, the Saint Paul Port Authority is recommending re-powering Rock-Tenn with discount-priced natural gas, utilizing carbon offsets from renewable biogas. The biogas would be produced at an anaerobic digestion facility to be built in out state Minnesota. The anaerobic digestion facility required would be the largest of its kind in the US.

We believe this solution will help:

- ensure that Rock-Tenn's 475 green-collar jobs stay here in Saint Paul.
- improve air quality in the surrounding neighborhoods.
- protect public health.
- advance our energy independence.
- the State fulfill its pledge to reduce global-warming carbon dioxide emissions 15 percent by 2015.
- promote vital economic development in Minnesota's rural communities while meeting urban needs.

This creative solution is not the only outcome of the collaboration of RCAP and the Port Authority on this study. Based upon other work this past year, Rock-Tenn will have decreased its peak energy demand by approximately 23 percent. In addition, the prospect of utilizing waste heat from Rock-Tenn's manufacturing process to supply heat to a major user or more than 300 commercial and industrial buildings along the Central Corridor could offer significant financial and environmental benefits to the businesses and neighborhoods of Saint Paul.

Rock-Tenn's Saint Paul mill is the largest paper recycling plant in the Upper Midwest. It recycles about 1,000 tons of paper everyday, converting much of it to high-value food-grade boxboard for the region's food manufacturers. It employs 475 people in competitive-paying jobs. About 385 of those positions are union jobs.

It also is one of the largest energy users in the Twin Cities, consuming energy equivalent to that used by about 22,000 homes. In August 2007, Rock-Tenn lost its primary energy source when Xcel Energy's High Bridge power plant was shut down. Steam energy from the coal-fired power plant on Shepard Road traveled along six miles of pipe to Rock-Tenn's plant near Vandalia Avenue. The pipeline cost Rock- Tenn about $40 million when it was constructed in 1984. With the closure of the High Bridge plant, Rock-Tenn began burning a mixture of #6 fuel oil and natural gas to power its operations.

The Minnesota Legislature authorized the Saint Paul Port Authority to oversee a $4 million study of renewable fuel options, increased conservation opportunities and the potential of recycling waste heat from the Rock-Tenn mill operations. For the past year, a group of 15 citizens, called Rock-Tenn Community Advisory Panel (RCAP), advised the Port Authority in its study on conservation opportunities and waste heat usage options and on a variety of renewable fuel and technology options including the combustion of: corn stover and perennial and switch grasses; farm-processing by-products, construction and demolition wood waste and urban wood waste; and Refuse Derived Fuel (RDF). The Port Authority and RCAP explored the application of solar and wind power at Rock-Tenn, and assessed energy production using gasification and anaerobic digestion. The Port Authority with RCAP also researched the environmental consequences and potential health effects of each fuel type to the Twin Cities community, as well as the economic consequences of each option to Rock-Tenn.

As noted in the research and findings, technologies and renewable fuels exist, as do environmental controls and monitoring, to assure technical feasibility and minimal public health and environmental impact.

In today's turbulent energy marketplace, however, the most difficult legislative criteria to address relates to "economic viability." The energy market and costs associated with energy are changing continually. Energy accounts for roughly 20 to 30 percent of Rock-Tenn's production costs and changes in energy pricing do affect its business in an increasingly competitive worldwide marketplace. In the past, oil and gas prices have peaked and then receded. Volatility in pricing occurs daily. Construction costs for energy projects have also increased significantly as costs for commodities have soared.

The Port Authority saw the need for an innovative approach to preserve local jobs at the major paper recycling operation in Minnesota while improving energy conservation measures and reducing the carbon footprint of Rock-Tenn's operations. The Port Authority has continued its research of the production of renewable biogas in rural Minnesota utilizing anaerobic digestion. During the study, RCAP and the Port Authority learned of wet feedstocks suitable for digestion including whole and thin stillage from corn ethanol production as well as other wet agricultural and animal by-products that are available. The Port Authority concluded that it was technically feasible, economically viable and environmentally sound to offset Rock-Tenn's use of natural gas if the price could be discounted through revenues and carbon credits from a biogas facility in rural Minnesota. Therefore it recommends the Saint Paul City Council approve the burning of discounted natural gas in Rock-Tenn's existing generators utilizing revenues and carbon offsets from the Port Authority's participation in the development of a biogas-producing anaerobic digestion facility in rural Minnesota. This recommendation involves a number of Minnesota partners to successfully produce sufficient quantities of clean biogas that results in a competitive energy price to Rock-Tenn over a sustained period of time.

It is impractical for the biogas, produced from the anaerobic digestion of a variety of organic waste materials in rural Minnesota, to be piped directly to Rock-Tenn. Instead, the biogas would be cleaned to natural gas quality and piped into the state's existing natural gas pipeline infrastructure. In this way, carbon neutral biogas from rural Minnesota would offset Rock-Tenn's use of natural gas. The production of biogas would be the least polluting of the available fuel options. Biogas emits very little long-term global-warming carbon dioxide harmful to the environment and public health that is not captured during the growth of the organic material utilized as feedstock. Depending on the method and feedstock, anaerobic digestion also provides benefits to the immediate community including management of undesirable waste, significant cleanup of water, and the production of nutrient rich soil for agricultural uses.

This approach also would use the plant's existing boilers and not require construction of a new energy facility at Rock-Tenn. There is a need to continue energy conservation efforts and the Port Authority recommends the implementation of conservation projects identified for the mill. Increased conservation and energy efficiency efforts that Rock-Tenn had engaged in prior to and with the help of this study will

also provide real, measurable and long-lasting energy reduction and cost savings.

The Port Authority also recommends further study of harnessing excess waste heat from Rock-Tenn's operations. Such waste heat could potentially be recaptured and recycled to further reduce the mill's operating costs, as well as to heat commercial and industrial buildings along the Central Corridor. The prospect of a Central Corridor energy district can serve as an environmentally sustainable catalyst for the green manufacturing zone envisioned by the Mayor. And it can amplify the environmental benefits of the Central Corridor light rail line.

Multiple "project partners" are needed to successfully implement the Port Authority's recommendations. Business arrangements need to be negotiated with various project partners including feedstock suppliers, technology vendors and operators, gas distributor and other utility support. Together these partners will be expected to provide a discount from the fluctuating cost of natural gas to Rock-Tenn. The company has indicated that the steeper the discount from the price of natural gas, the longer the company is prepared to commit to operating in Saint Paul.

A number of variables need to align if this option is to be successful – including the sale of carbon credits to supplement the natural gas-price discount and, more importantly, the successful financing of a large anaerobic digester using U.S. Department of Energy, U.S. Department of Agriculture or other loan guarantees. Our efforts also would require that Rock-Tenn commit to continue operating the Saint Paul plant for at least 10 years after the biogas delivery system is up and running.

Anaerobic digestion of organic waste materials in rural Minnesota is the cleanest and least environmentally disruptive option to the Twin Cities metro area. If all the conditions are met, it also would be the most cost-effective option for Rock-Tenn. The Port Authority is confident that all of the conditions can be met.

However, should the financials of our preferred option not be realized, the Port Authority would explore two other alternatives. Both would involve the construction of new green energy facilities at Rock-Tenn to generate the thermal (steam) energy it needs.

The first alternative would still be linked to the generation of renewable biogas in rural Minnesota and added to the natural gas grid. But we also would build a new gas-turbine co-generation facility at Rock-Tenn powered by natural gas. This new electric turbine would generate both steam to run Rock-Tenn's machinery and electricity. Sale of the renewable electricity and carbon credits from a biogas facility would reduce the net cost of the thermal (steam) energy sold to Rock-Tenn. Although this would require a greater quantity of biogas than the continued use of the existing boilers, the new cascaded system would be highly energy efficient (the most energy efficient of all of the options) since the new co-generation plant would also continue to use the existing co-generation plant at Rock-Tenn. In addition to construction of a new plant at Rock-Tenn, it would require securing about 60 percent more biogas for offset and negotiating a power purchase agreement with an electric utility.

The Port Authority's second alternative is the gasification of renewable biomass energy crops such as willow, perennial grasses and forest residues at a new facility to be built on the Rock-Tenn campus. This option would require a loan guarantee form the U.S. Department of Energy in the range of $50 million to $70 million. It would require national Farm Bill financial assistance to establish and harvest energy crops on marginal lands, as well as contracts with farm and lumber cooperatives to accumulate these crops. The capital cost of the gasification system also would need to be refined to the $60 million to $70 million range.

Until a project is financed to meet Rock-Tenn's energy needs, all other options will remain in the event future consideration is needed.

Findings

Throughout the study, the Port Authority focused on the legislative directive in Senate File 2096 "to present the findings of its analysis and its preferred alternative for an eligible energy technology fuel mix…The recommendation of the Saint Paul Port Authority concerning its **preferred alternative fuel mix must be based on the alternative that has the least environmental impact consistent with economic viability and technical feasibility of the facility**."

These findings have been made by the Port Authority following the completion of the study, and support the Port Authority's recommendations to the Saint Paul City Council, following RCAP review

as well as review by the general public at two public meetings and the District Councils' reviews and resolutions:

1) Rock-Tenn needs 2.0 Million MMBtu (annually) and 275,000 Lbs/Hr (peak) of steam but the mill currently cannot utilize all the low grade waste heat generated by the paper making process. This waste heat should be utilized to the extent possible first at Rock-Tenn and then beyond the site at other neighboring facilities or an energy district.

2) The Port Authority shall encourage Rock-Tenn to implement as many conservation measures identified as possible.

3) Multiple technologies have been determined to be technically feasible to meet Rock-Tenn's energy needs including: anaerobic digestion, conventional combustion, and gasification.

4) Sufficient quantities of renewable fuels are available including sustainably harvested wood, refuse derived fuel (RDF), and wet agricultural fuels which can be utilized in an anaerobic digester to produce biogas.

5) All feasible technologies and scenarios being pursued by the Saint Paul Port Authority will significantly reduce greenhouse gas emissions from the mill's current operations.

6) Consistent with the legislative direction to recommend a preferred alternative that has the least environmental impact consistent with the economic viability and technical feasibility of the facility and since the Twin Cities metropolitan area is in attainment, alternatives that require a new facility on the Rock-Tenn site will utilize the U.S. Best Available Control Technology (U.S. BACT) except that the Port Authority agrees to apply air emissions controls that meet European Standards (EU) if more stringent than U.S. BACT.

7) Transportation and other smaller pollution sources have a greater impact on local air quality than controlled emissions from large industrial sources such as Rock-Tenn.

8) For any new facility, the Port Authority will continue to look at additional emission controls to the extent they are economical. The Port Authority will request and pay for additional monitoring sites.

9) A new gasification facility would add on average 36 to 41 trucks per day hauling dry biomass to Rock-Tenn, about a 0.02 percent increase over the more than 225,000 vehicles that currently travel in the area of Highways 280 and Interstate 94.

10) Regardless of the fuel option selected, there is the potential to utilize waste heat generated by Rock-Tenn operations in a district energy system that will require further study.

11) The use of anaerobic digestion as a renewable technology in this country will continue to grow.

12) Anaerobic digestion allows the use of existing infrastructure to link and use rural resources to meet the energy needs of urban areas.

13) Using biogas generated by anaerobic digestion will not only reduce the use of fossil fuels but also reduces the release of methane gas into the atmosphere that is 21 times more potent greenhouse gas than CO2.

14) The Port Authority has found that the use of any of the feasible technologies and fuels would result in lower emissions from the Rock-Tenn facility.