

STATE OF MINNESOTA
ENVIRONMENTAL QUALITY BOARD

In the Matter of the Need For an
Environmental Impact Statement for
the St. Paul Cogeneration Facility
Proposed by St. Paul Cogeneration
L.L.C.

**FINDINGS OF FACT, CONCLUSIONS
AND ORDER, DETERMINING THAT
NO EIS IS NEEDED**

**MEQB DOCKET NO.
01-13-EAW-SPC**

This matter came before the Minnesota Environmental Quality Board at a regular meeting held on March 15, 2001.

Statement of Issue

St. Paul Cogeneration L.L.C. (SPC) has proposed to construct a 28.5 megawatt wood-fired combined heat and power facility in St. Paul.

Minn. Rules part 4410.4300, subp. 3 requires that an EAW be prepared for electric power generating plants and associated facilities designed for, or capable of operating at, a capacity of 25 MW or more. The MEQB is the responsible governmental unit for review of electric generation facilities with a capacity of 25 MW or greater.

The board's decision in this matter shall be either a negative or a positive declaration of the need for an EIS. The board must order an EIS for the project if it determines the project will have the potential for significant environmental effects (Minn. Rules part 4410.1700).

Based upon the information in the record, which is comprised of the EAW for the proposed project, written comments received, responses to the comments and other supporting MEQB documents, the MEQB makes the following Findings of Fact and Conclusions:

FINDINGS OF FACT

Project Description

1. St. Paul Cogeneration L.L.C. (SPC) proposes to construct a 28.5 MW combined heat and power facility in St. Paul, MN. SPC is a partnership between Market Street Energy Company, L.L.C. and Trigen-Cinergy Solutions L.L.C. Market Street Energy Company, L.L.C. is a wholly owned subsidiary of District Energy St. Paul (DESP).
2. The project will be owned by SPC. The project will be operated by Market Street Energy.
3. Construction on the project is scheduled to begin in 2001 and will be completed by December 2002.

4. The project will be located adjacent to the existing DESP facility in downtown St. Paul. The DESP site has been used to generate steam and electricity since the beginning of the 20th century. The existing DESP facility uses thermal energy to supply heating and cooling to buildings in and near downtown St. Paul.
5. The proposed project is located within the Mississippi River Corridor Critical Area and Mississippi National River and Recreation Area (MNRRA).
6. The project will burn approximately 30,000 tons of wood waste per month. Wood waste is defined in Minn. R. part 7011.1201, subp. 48 as “wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including sawdust, sander dust, wood chips, wood scraps, slabs, millings, shavings, and processed pellets made from wood and other forest residues.” The wood may be supplemented by other agricultural wastes. Minn. Stat. 216B.2424 identifies the types of agricultural wastes that may be used. Natural gas will be available as a backup fuel.
7. The project will generate up to 28.5 MW of electric power. Approximately 3.5 MW of the generated power will be used within the plant and 25 MW will be sold to Xcel Energy Inc.
8. The project will have a thermal capacity of 69.5 MW. The thermal energy generated by the project will supply approximately 80 percent of DESP’s thermal load for heating and cooling operations.
9. The proposed project will consist of a fuel-handling system, a boiler, air pollution control equipment, a steam turbine generator and other ancillary equipment. In addition the fuel source for DESP’s existing boiler number four will be converted from coal to natural gas.
10. The design for the electric transmission interconnection to the grid will not be final until mid 2001. Transmission facilities will be owned and operated by Xcel Energy Inc. All designs for the transmission interconnection that are under consideration will be less than 3 miles long and under the 200 kV threshold that triggers review of transmission facilities under the Power Plant Siting Act.
11. SPC is evaluating whether the existing wood fuel suppliers will be capable of supplying the quantity and quality of wood fuel necessary for the project. If wood suppliers are unable to meet the demand of the proposed facility, then SPC may design and construct a central processing facility for the wood fuel to ensure a reliable and homogeneous fuel supply. If constructed, a fuel processing facility would require environmental review and the environmental impacts of such a facility would be assessed at that time.
12. The existing DESP facility currently operates under Minnesota Pollution Control Agency (MPCA) Permit Number 2024-85-OT-3, issued in July 1985. The MPCA considers the project a major modification to the existing DESP air permit according to Minn. Rules part 7007.1500 and the federal New Source Review (NSR) Prevention of Significant (PSD) program (40 CFR 52.21). DESP submitted a Title V permit application to the MPCA, this project will require DESP to amend their Title V permit application.

13. The project is subject to regulation by the City of St. Paul and state and federal agencies as listed in section 8 of the EAW.

Procedural

14. Minn. Rules part 4410.4300, subp 3 requires the preparation of an EAW for the construction of an electric power generating plant with a generating capacity of 25 megawatts or more. The purpose of the EAW is to aid in the determination of whether an environmental impact statement should be prepared. The MEQB is designated as the responsible governmental unit to prepare the EAW for these kind of projects.
15. SPC submitted the data portion of the environmental assessment worksheet to the EQB staff. The staff obtained supplemental data and prepared the EAW.
16. Notice of the availability of the EAW was published in the *EQB Monitor*, Vol. 24, No. 26, on December 25, 2000. The published notice initiated a thirty-day comment period.
17. The EAW was distributed to the MEQB distribution list on December 22, 2000, pursuant to Minn. Rules part 4410.1500.
18. A press release containing the notice of availability of the EAW for public review was provided to papers in the Twin Cities metropolitan area on January 9, 2001 and published in the *St. Paul Pioneer Press* on January 10, 2001. The comment period was extended until February 7, 2001.

Comments

19. The MEQB received 14 comment letters by the close of the comment period on February 7, 2001. None of the letters requested that an EIS be prepared for the project.
20. On January 8, 2001, the MEQB received a letter from the Minnesota Department of Transportation stating that the Department had no comments on the EAW. No response was necessary.
21. On January 9, 2001, the MEQB received a comment letter from the U.S. Army Corps of Engineers. The letter stated that no U.S. Army Corps of Engineers projects or real estate would be affected by the proposed project. The letter stated that traffic from the project might result in additional noise and congestion in the area. On February 28, 2001, MEQB staff responded that the truck traffic would largely displace the trucks now delivering coal and that the impact on noise and traffic would not be significant.
22. On January 23, 2001, the MEQB received a comment letter from the Minnesota Department of Natural Resources (DNR). The agency's comments concerned the absence of reference to

the project's location within both the state-designated Mississippi River Critical Area Corridor and the federally designated Mississippi National River and Recreation Area (MNRRA) in the EAW. MEQB staff responded in a letter dated March 5, 2001 that the record for the project would reflect this correction. SPC is aware of the site's location within the Mississippi River Critical Area Corridor and MNRRA, and must comply with provisions laid out in the St. Paul's Mississippi River Corridor Plan, St. Paul Zoning Code, Executive Order 79-19 and the MNRRA Comprehensive Management Plan in order to receive a building permit from the City of St. Paul. DNR and the National Park Service will have an opportunity to review and comment on the site plan for the proposed facility when plan comes before the St. Paul Planning Commission for review.

23. The MEQB received two comment letters from the City of St. Paul (City) on January 24, 2001, and February 7, 2001. MEQB staff responded to both of these comment letters in a letter dated March 5, 2001.

In their letter of February 7, the City requested that SPC provide a "realistic engineering assessment of the odor potential from the use of urea for nitrogen oxide (NO_x) reduction." The MEQB staff asked SPC to prepare an engineering assessment of the odor potential. MEQB staff conveyed the results of that assessment to the City in the March 5 response letter. Although odor does not appear to be an issue with wood combustion plants, odor may result when the urea or ammonia used in the Selective Non-Catalytic Reduction technology used to reduce NO_x emissions is not burned completely. SPC's consultant, Labno Environmental, Inc., used a dispersion model to predict the maximum concentration of ammonia from the SPC facility. The dispersion model, ISCST3, was the same one used to model criteria pollutants as part of SPC's air permit application to MPCA. MPCA staff confirmed that this model is appropriate for predicting ammonia concentrations. Estimates of the human odor threshold for ammonia range from 5 to 17 parts per million by volume (ppmv). The modeling shows maximum ammonia concentrations over a series of averaging times varying from 0.089 to 0.890 ppmv. The estimates are considerably less than a conservative estimated odor threshold of 5 ppmv. SPC supplied documentation to MEQB staff that the NO_x reduction equipment selected by SPC is used in a number of urban facilities without odor complaints.

Both of the City's comment letters raised issues with respect to local review and permitting of the project. The MEQB staff response stated that the EAW process does not supersede local review and permitting and that issues such as urban design, zoning issues and site plan review are more appropriately addressed at the local level.

24. On January 25, 2001, the MEQB received a comment letter from the Metropolitan Council. MEQB staff responded in a letter dated March 2, 2001.

The Met Council letter suggested that there may be an opportunity in the future for the facility to team with the Minnesota Science Museum in developing a wetland treatment system for runoff from the facility. MEQB staff has forwarded these comments to SPC for their consideration.

The comment letter pointed out that the EAW had omitted reference to the project's location within the Mississippi River Corridor Critical Area and Mississippi National River and

Recreation Area (MNRRA). EQB staff responded that the record will reflect this correction (see finding 22).

The letter also raised concerns about the potential impact of the SPC facility on a planned recreational trail along the Mississippi River, across Shepard Road from the proposed project. The comments concerned the potential for odor, increased traffic, facility design, and possible visibility or safety hazards created by vapor plumes from cooling towers. MEQB staff responded that odor does not appear to be an issue at other wood-fired plants and that an engineering assessment of the odor potential for ammonia shows projected odor from the NO_x controls well under detectable odor levels (see finding 23). The truck traffic from the facility will not increase significantly and will largely displace existing coal delivery trucks (see finding 21). The project will need to receive site plan approval from the St. Paul Planning Commission (see finding 23). Site Plan review takes design and aesthetic issues into account. Based on information supplied by Hennepin County and SPC, problems with visibility and ice formation, as experienced at the Hennepin Energy Recovery Corporation's waste incineration facility, are not an issue at the existing DESP facility due to differences in the site configuration. Increase in vapor from the proposed project is not expected to be significant.

The Metropolitan Council letter also clarified that the project will require an update of DESP's Metropolitan Council Environmental Services Industrial Discharge Permit. The amended permit must be updated 60 days in advance of the increase in wastewater. SPC has committed to updating the permit before the project becomes operational.

25. On January 26, 2001, the MEQB received a comment letter from the Minnesota Pollution Control Agency (MPCA). The letter stated that the air emissions permit issued by MPCA will be for burning wood waste fuel as defined by Minn. Rules part 7011.1201, subp. 48 and will not allow the burning of treated wood. MEQB staff responded to these comments in a letter dated February 28, 2001. The response letter clarified that SPC wood fuel specifications preclude treated wood and that the air permit application will also allow burning of the types of agricultural wastes permitted in Minn. Statutes 216B.2424 (see finding 6).

The MPCA letter requested clarification on the type of storm water plan required by the project. The MEQB response letter confirmed that the facility will require a stormwater plan, not a stormwater construction permit, and that SPC has committed to submitting a stormwater plan for MPCA's approval.

The MPCA letter stated that the noise area classifications (NAC) for two sites referenced in the EAW – the St. Paul Public Library and the Science Museum of Minnesota – are incorrect and should be reclassified as NAC-1. The letter also informed MEQB staff that the predicted noise levels at the Museum site exceed permitted levels. Predicted sound levels at the Library were within permitted levels. The MEQB response letter stated that the NACs for the museum and the library sites will be corrected. SPC took additional noise measurements at the site and re-evaluated the noise potential from the project using more detailed information on the type and location of the equipment. Revised noise predictions show the predicted noise levels at the Science Museum to be within the permissible noise levels at NAC-1 locations.

26. On January 29, 2001, the MEQB received a comment letter from the State Historic Preservation Office (SHPO). The letter informed the MEQB that in its correspondence with Labno Environmental (the firm SPC engaged to prepare the environmental evaluation), SHPO had omitted the St. Paul Public Library/Hill Reference Library, the Irvine Park Historic District and the St. Paul City Hall from its list of historically and architecturally significant resources in the vicinity of the project. MEQB staff responded on February 28, 2001, that the record will reflect these changes. Additionally the SHPO reiterated the importance that these historic areas are taken into account in the design of the project. The project will require site plan approval by the St. Paul Planning Commission, which entails design review (see finding 23).
27. On February 7, 2001, the MEQB received a comment letter from Minnesotans for an Energy Efficient Economy (ME3). The letter requested that SPC commit to burn only wood that is not scheduled to be re-used or recycled and that SPC commit to reducing their use of existing coal fired boilers. MEQB staff responded on March 2, 2001, that the use of the coal boilers will be addressed in the project's air emissions permit before the MPCA. A copy of the comment letter and response was sent to MPCA.
28. On February 7, 2001, the MEQB received a comment letter from the St. Paul Neighborhood Energy Consortium. The issues raised in the comments and the MEQB staff response are referenced in finding 27.
29. On February 7, 2001, the MEQB received a comment letter from the Clean Water Action Alliance. The issues raised in the comments and the MEQB staff response are referenced in finding 27.
30. On February 7, 2001, the MEQB received a comment letter from the Minnesota Chapter of the Izaak Walton League. The issues raised in the comments and the MEQB staff response are referenced in finding 27.
31. On February 7, 2001, the MEQB received a comment letter from Sidney Binion of Burnsville, MN. The letter questioned whether the plant is using the best available technology and posited that Greenrun technology, a wood gasification system, is a better technology for the facility. MEQB staff responded to Mr. Binion's comments on March 7, 2001. While this may be a promising technology in some instances, MEQB staff does not believe that Greenrun technology would be able to meet SPC's thermal load requirements. MEQB staff forwarded Mr. Binion's comments to MPCA for consideration in their air permit process.
32. On February 7, 2001, the MEQB received a letter from Sherilyn Young, a resident of St. Paul. MEQB staff responded to these comments in a letter dated March 7, 2001.

Ms. Young's letter requested that ash waste be used as a soil enhancer and that SPC honor the waste reduction hierarchy in using only fuels that are otherwise unusable. MEQB responded that her letter had been forwarded to SPC for their consideration.

The letter requested additional information on the noise impacts from the project at the St. Paul Yacht Club and the bluffs along St. Paul's West Side. MEQB staff responded that the

noise data from Harriet Island indicates that there is significant noise attenuation from the distance between the project and the locations sited by Ms. Young, and that noise from the project should not affect current sound levels at either the Yacht Club or the bluffs.

Ms. Young's letter also expressed concerns about the control of pollutants other than NOx and particulate matter, and the continued use of coal-fired boilers at the DESP facility. MEQB staff responded that the MPCA air permit will regulate air emissions for a variety of pollutants. The continued use of coal-fired boilers at the DESP facility is, likewise, better addressed in the MPCA's air permit process (see finding 27). A copy of Ms. Young's letter was forwarded to MPCA for consideration as part of their air emissions permit.

EIS Standard and Criteria

33. In deciding whether the project has the potential to result in significant environmental effects, the MEQB considered the four criteria set forth in Minn. Rules part 4410.1700, subp. 7. These criteria are:
 - A. type, extent and reversibility of environmental effects;
 - B. cumulative potential effects of related or anticipated future projects;
 - C. the extent to which the environmental effects are subject to mitigation by ongoing public regulatory authority; and
 - D. the extent to which environmental effects can be anticipated and controlled as a result of other available environmental studies undertaken by public agencies or the project proposer, including other EISs.
34. With regard to the first criterion (type, extent, and reversibility of effects), the MEQB finds that the project will have essentially no impacts on water quality or wildlife. The project's land use impacts have been minimized by the location of the project adjacent to an existing steam generating facility. The proposed facility will emit pollutants into the air but the amount of these pollutants will be restricted by air permits and the impact of these additional pollutants is expected to be minimal. Odors from the facility are not expected to be significant.
35. With regard to the second criterion (cumulative potential effects of related or anticipated future projects), the MEQB finds one anticipated future project and one possible future project connected to this project. The project will require connection to the electric transmission system. Plans for the electric transmission line to connect the facility with the electric power grid have not been finalized, but in all options being considered, the electrical interconnection will be under the 200 kV threshold that triggers review of transmission facilities under the Power Plant Siting Act. The project may require an off-site wood processing facility. If constructed, a fuel processing facility would require environmental review and the environmental impacts of this facility would be assessed at the that time.
36. With regard to mitigation, there are several federal, state and local permits required to ensure that specific environmental effects are mitigated.

37. There are no other specific environmental studies addressing the potential environmental effects of the project.

CONCLUSIONS

1. The MEQB has jurisdiction in determining the need for an environmental impact statement for this project.
2. The Environmental Assessment Worksheet for the proposed St. Paul Cogeneration Project was distributed as required by the Minnesota Environmental Policy Act and Minn. Rules parts 4410.1500.
3. Responses have been provided to all substantive and timely comments on the EAW.
4. The record includes adequate information to determine whether the proposed St. Paul Cogeneration Project has the potential for significant environmental effects.
5. The proposed St. Paul Cogeneration Project does not have the potential for significant environmental effects.
6. Any findings that might properly be termed conclusions and any conclusions that might properly be termed findings are hereby adopted as such.

ORDER

Based on the Findings of Fact and Conclusions contained herein and on the entire record:

The Minnesota Environmental Quality Board hereby determines that the proposed St. Paul Cogeneration project does not require the preparation of an environmental impact statement.

Approved and adopted this 15th day March 2001.

State of Minnesota
Environmental Quality Board

Gene Hugoson, Chair