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J.W. Boyce (1884-1915)

October 10, 2005

Pam Bonrud, Executive Director  
Public Utilities Commission  
500 E Capitol  
Pierre SD 57501

via email [pam.bonrud@state.sd.us](mailto:pam.bonrud@state.sd.us)

Re: In the Matter of the Application by Otter Tail Power Company on Behalf of Big Stone II Co-Owners for an Energy Conversion Facility Permit for the Construction of Big Stone II Project (EL05-022)  
Our File No. 11402.000

Dear Ms. Bonrud:

I am writing to provide information that was requested by the Commission during the September 13, 2005 public hearing in Milbank. During the public hearing, Terry Graumann presented a chart and information regarding sulfur dioxide (SO<sub>2</sub>) emissions. (See Hearing Transcript p 32-33) As indicated on page 35 of the transcript, Commission Chairman Hanson requested similar information for nitrogen oxide (NO<sub>x</sub>), mercury (Hg) and carbon dioxide (CO<sub>2</sub>).

In response to said request, enclosed please find copies of three charts depicting the emission information for the three substances identified by Chairman Hanson and a chart of bullet points providing explanations as to the CO<sub>2</sub> emissions chart.

Sincerely yours,

BOYCE, GREENFIELD, PASHBY & WELK, L.L.P.

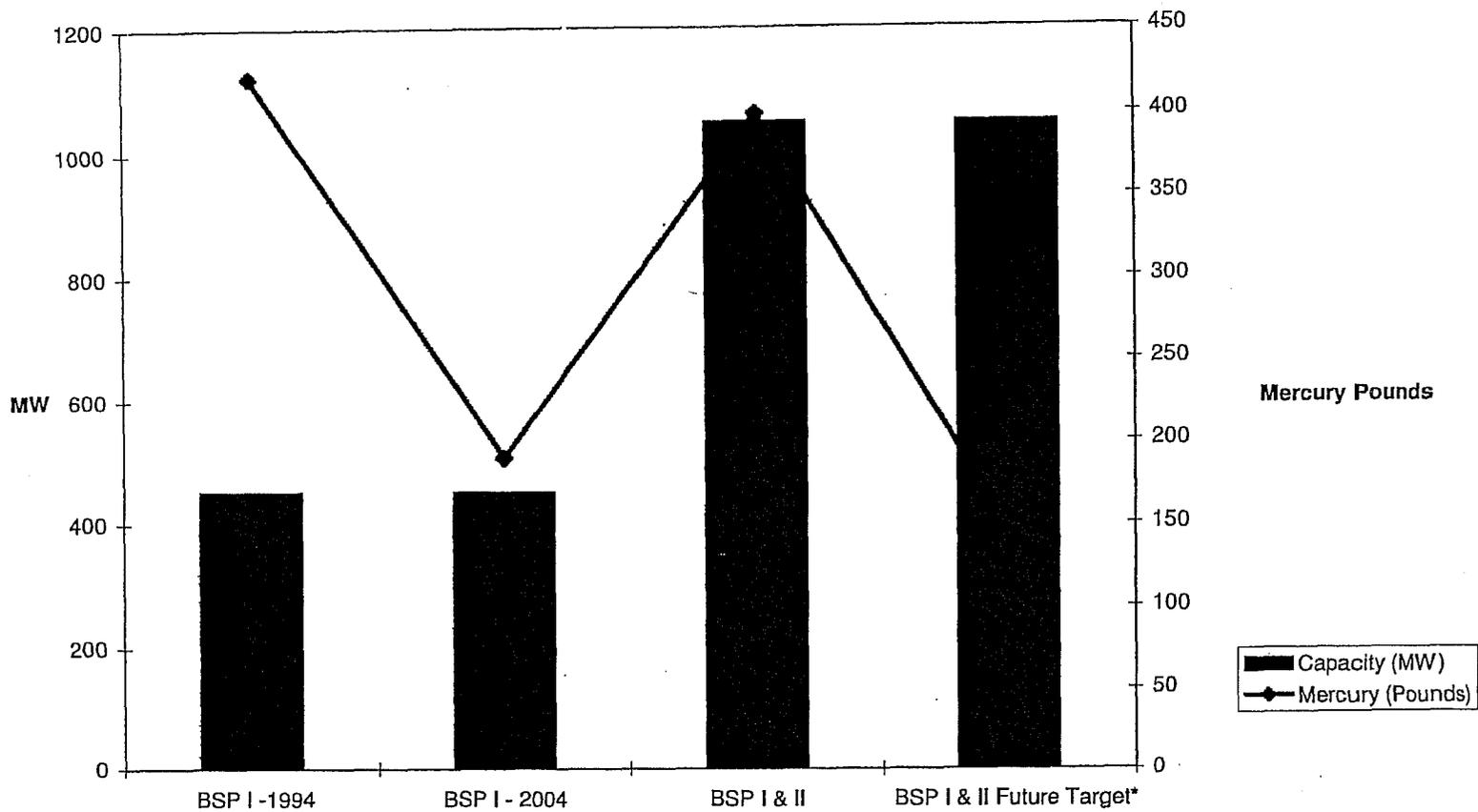
Christopher W. Madsen  
CWM/vjj

Attachments – Nitrogen emissions graph, mercury emissions graph, carbon dioxide emissions graph and chart of bullet points re the carbon dioxide graph

cc: Mark Rolfes (via email [mrolfes@otpc.com](mailto:mrolfes@otpc.com) w/enc)  
Terry Graumann (via email [tgraumann@otpc.com](mailto:tgraumann@otpc.com) w/enc)

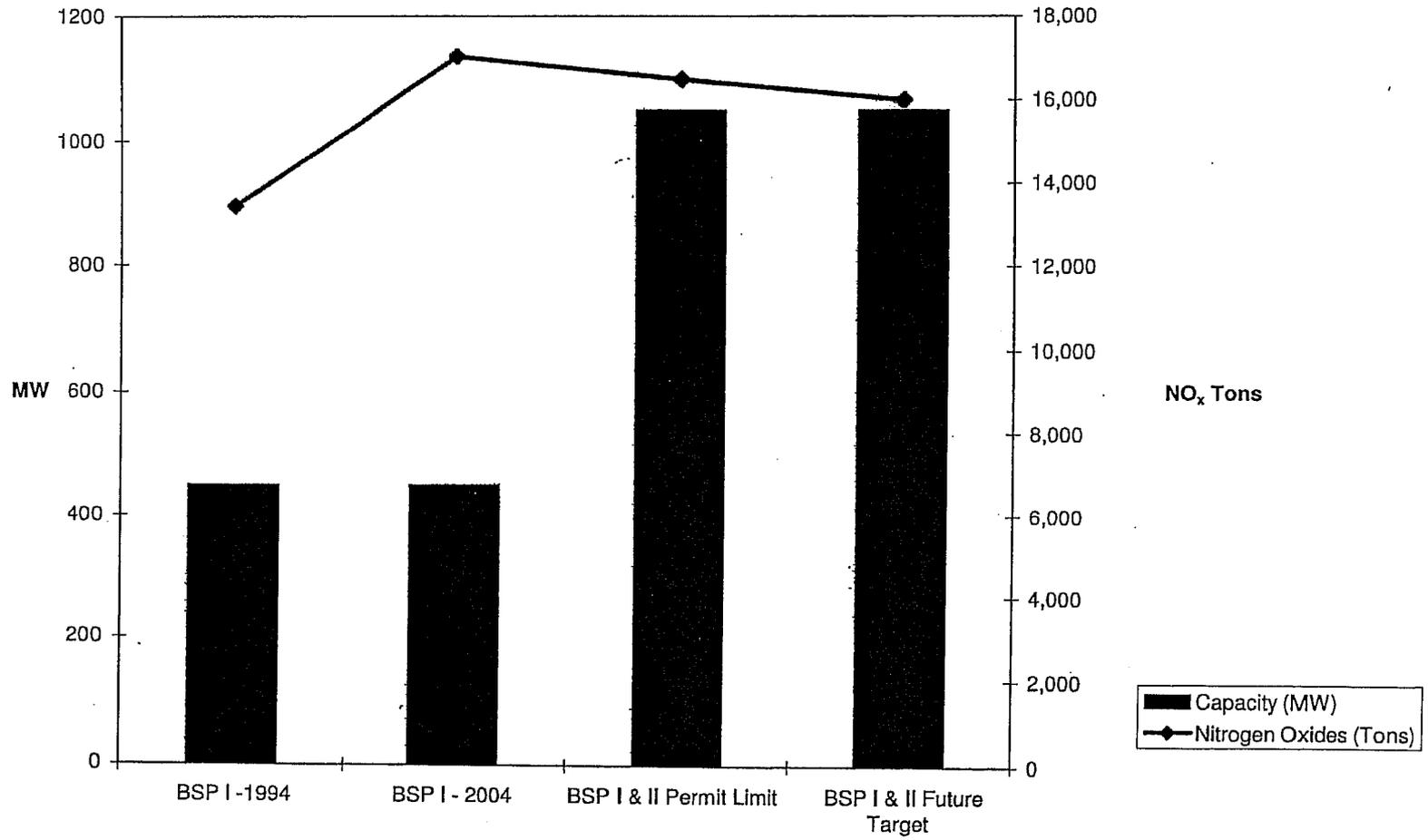
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### Big Stone I & II Mercury

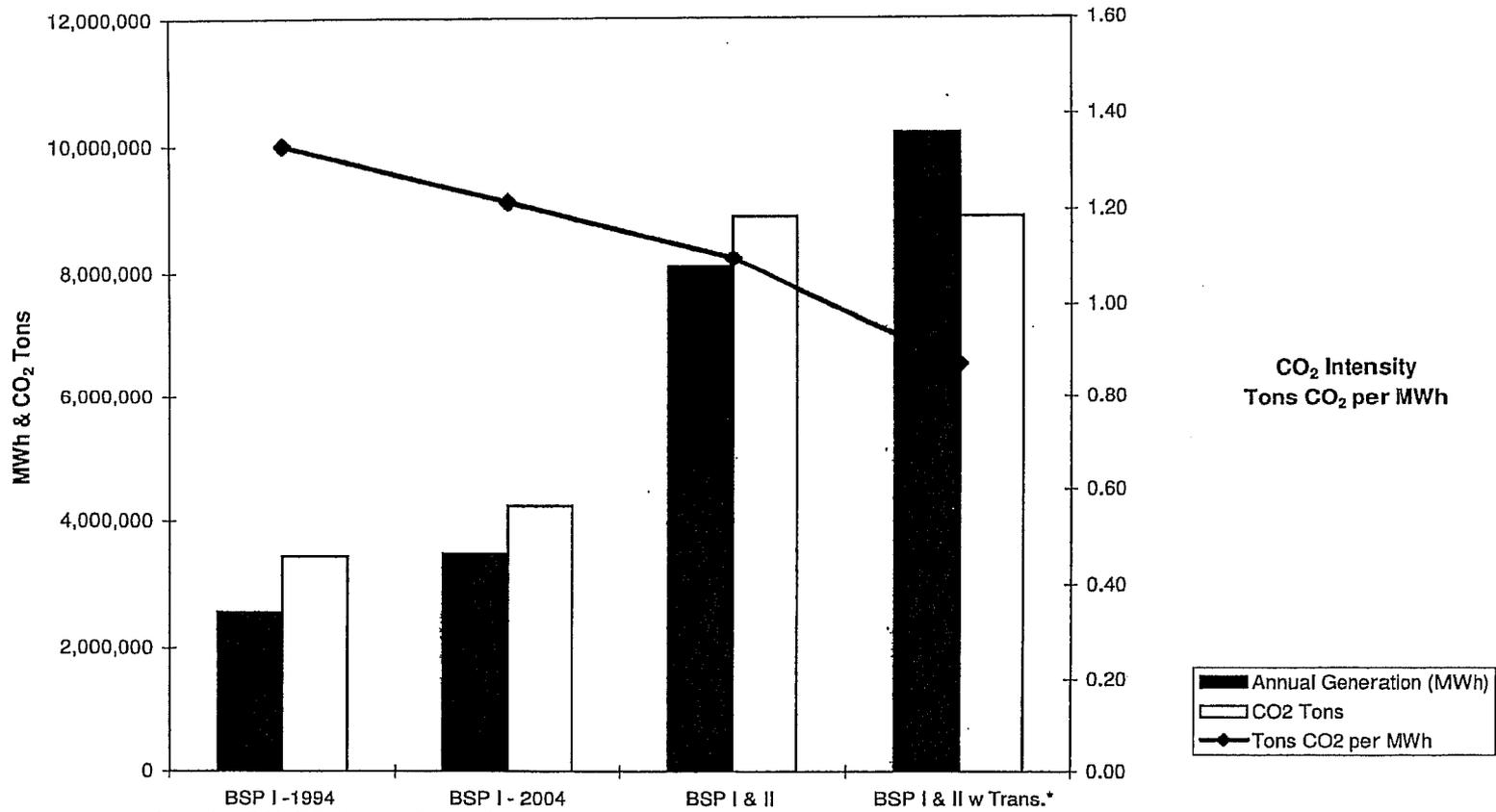


\*Mercury target based on South Dakota mercury allowance allocation under the Clean Air Mercury Rule

### Big Stone I & II Nitrogen Oxides



## Big Stone I & II Carbon Dioxide Intensity



\* Based on BSP II Project's voluntary \$25 million dollar investment in additional regional transmission capacity and potential development by others of 800 MW of wind generation

# Carbon Dioxide Emissions

- Carbon dioxide produced by combustion of all fossil fuels
- Emission rate determined by fuel carbon content and process efficiency
- No commercially available capture and sequestration technology
- In the meantime, CO<sub>2</sub> intensity is an appropriate benchmark