SOLVAY
SOLVAY SODA ASH JOINT VENTURE

July 16, 1997

Lee Gribovicz
WDEQ/AQD
250 Lincoln
Lander, WY 82520

RE: AP-W77

Dear Lee:

Per your request, the following is information concerning AP-W77, Solvay Soda Ash Joint Venture's pending permit application.

AQD #85 - Boiler:
The proposed expansion boiler will have a steam rating of 100,000 pounds per hour. It will burn natural gas, which is considered a "clean" fuel. Although final design of the boiler has not yet been made, the following are possible designs that may be used to achieve the 0.038 lb NO_X/MM Btu emission rate:

1. To improve boiler efficiency, an extended surface may be used in the convection section to reduce gas pressure drop and exit gas temperature.

2. A water-cooled front wall may prevent reradiation of energy from the refractory, thereby lowering flame temperature and NO_X levels.

3. A natural gas fired burner may employ staged air/fuel combustion. The combustion air or fuel will be added in stages, delaying the combustion process and reducing the formation of NO_X.

The Kern County, California facility noted on page 3-32 of the permit application refers to a 62.5 MM Btu/hr boiler with an emission rate of 0.043 lb NO_X/MM Btu. This rate has been determined to be BACT for a boiler of that size. This is similar to the 100 MM Btu/hr boiler Solvay Soda Ash Joint Venture plans to install, at 0.038 lb NO_X/MM Btu.

Product Silos:
Two new 325,000 ft^3 product silos will be built for the expansion project, holding approximately 10,000 tons of soda ash each. There are two existing silos with 10,000 ton capacity, and four smaller silos with 7,000 ton soda ash capacity (225,000 ft^3).

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Additional BACT information concerning the control of VOCs utilizing a Wet ESP and the control of CO is forthcoming.

If you have further questions, please contact me at (307) 872-6571.

Sincerely,

Dolly A. Potter
Environmental Engineer

cc: Bernie Dailey