

Perma Pure Systems Application Data Form

1 *Where is the preferred mounting location for the conditioning system?*

Directly on the probe _____ *Stack dia* ____ *Flange dia* ____
At the stack with 6' of heated sample line _____
On the ground in an analyzer shed _____

Note that stack mounting does save considerable heated line expense, but in colder climates, freeze protected line will still be required. If stack mounted, location must be accessible for filter replacement and maintenance.

2 *What is the area classification ?*

General _____

Class I, Div. II _____

3 *If there is any SO₂ in the sample, what is the concentration?*

_____ ppm SO₂

If the concentration of sulfur dioxide will be 100 ppm or less in the sample, there should be no sulfuric acid mist problems. If the concentration exceeds 1000 ppm, there will very likely be a sulfuric acid mist problem and a larger system will be required.

4 Will the DeNOx process be in use (will ammonia be injected into the stack to reduce nitrogen oxide emissions)? If, so an ammonia scrubber must be added to the system to protect the dryer and analyzer from the formation of ammonium bisulfate, a precipitate formed by the reaction between residual ammonia and sulfur dioxide in the sample.

The NH₃ concentration is?

_____ ppm NH₃

5 *If there is HCl in the sample, what is the concentration?*

_____ ppm HCl

Hydrogen Chloride will not hurt the system, but will require that all wetted surfaces be a fluorocarbon polymer (either Teflon® or Kynar®) instead of stainless steel so that there is no corrosion.

6 The Perma Pure dryer requires a purge gas to remove the water vapor from the system.

Will -40°C dew point air be available?

YES _____

NO _____

7 *What is the initial water content and temperature of the sample?*

Coal or Oil combustion = ~12% H₂O/vol _____

Natural Gas = ~22% H₂O by volume _____

Wet Scrubber = ~50% H₂O by volume _____

Other _____

Sample Temperature _____

8 *What is the total sample flow rate required by the analyzers?*

_____ LPM

If good quality instrument air is not available, the optional heatless dryer will be build into the system to provide dry purge air for the Nafion gas dryer that processes the sample gases.

9 *What are your electrical requirements?*

110 VAC, 60Hz _____

220 VAC, 50 Hz _____

10 Company _____

Contact _____

Phone _____ Fax _____