Rombough, Kyrik

From: Alex J. Sagady & Associates [ajs@sagady.com]
Sent: Monday, May 12, 2008 1:10 AM
To: Rombough, Kyrik
Cc: John.Davidson@usd.edu; Jake4mail@speednet.com
Subject: Rectisol CO2 Vent at Hyperion

Kyrik:

I've searched high and low in the Hyperion air permit application and I cannot find any information at all on stack gas conditions (including temperature, DSCM/sec, etc.), stack height, stack location for the Rectisol CO2 vent at the Hyperion IGCC power plant.

Do you have any of this information?

Inasmuch as the 4.2 lb/hr hydrogen sulfide emission rate is in the same ballpark as the hydrogen sulfide mass emission rate from a garden-variety 1000 ton per day kraft pulp mill recovery boiler (typically using a 3-400 ft stack), and is larger than the predicted hydrogen sulfide emissions from all of the refinery process emission units, some caution is needed on this emission source as to H2S / odors.

Hyperion's claims that only CO and H2S are discharged. Have they submitted any additional information to support that claim, such as process temperature review to determine any other non-condensible gases that might be present (i.e. CS2 or COS)?

There is no evaluation of a caustic scrubber to control emissions in the H2S BACT review for this source, for example in a packed tower. There is no evaluation using this process gas as input to some of the combustion sources at this site after re-heat (for example by some of those 400+ waste heat flue gas discharges from the process heaters).

Finally, BACT determinations are supposed to consider the consequences of control decisions on unregulated pollutants. There is no evidence in the application of any evaluation of the effect of a control decision on both odors and hydrogen sulfide as unregulated pollutants when the carbon monoxide control decision was made for this source.

Thanks for considering this message. Any additional information you may have on the CO2 vent discharge would be helpful.

Regards,

Alex Sagady
Environmental Consultant to
Sierra Club Living River Group

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Alex J. Sagady & Associates http://www.sagady.com

Environmental Enforcement, Permit/Technical Review, Public Policy, Expert Witness Review and Litigation Investigation on Air, Water and Waste/Community Environmental and Resource Protection Prospectus at: http://www.sagady.com/sagady.pdf

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Rombough, Kyrik

From: Alex J. Sagady & Associates [ajs@sagady.com]
Sent: Monday, May 12, 2008 1:12 AM
To: Rombough, Kyrik
Subject: one other question

What does "BFW" stand for in Hyperion's
process flow diagrams?

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Alex J. Sagady & Associates http://www.sagady.com

Environmental Enforcement, Permit/Technical Review, Public Policy,
Expert Witness Review and Litigation Investigation on Air, Water and
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