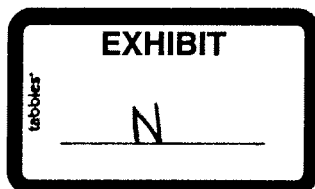


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BEFORE THE
ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING

IN THE MATTER OF:)
)
MEDICINE BOW FUEL & POWER,) No. 09-2801
LLC AIR PERMIT CT-5873.)
_____)

DEPOSITION OF RANAJIT SAHU, Ph.D., taken on behalf of the Respondent, at 170 South Euclid Avenue, Pasadena, California, commencing at 9:12 a.m., on Friday, October 23, 2009, pursuant to Notice, before CLAUDIA REYES, CSR No. 12812, a Certified Shorthand Reporter, in and for the County of San Bernardino, State of California.



The following is an unedited rough draft and is not in final form. There will be various nontranslates and mistranslates that the reporter is trained to read. Various corrections and/or changes will be made before the final version is completed. This ascii/livenote connection is being provided as a special service to be used for limited purposes; however, the reporter and jonnell agnew and associates will not be responsible for the content of such rough draft and/or any variance thereof from the final transcript.

BY MR. COPPEDE:

Q. Could you be kind enough to state your name and address for the record.

A. Sure. My first name is Ranajit, spelled R-A-N-A-J-I-T. My last name is spelled Sahu, S-A-H-U. My address is 311 North Story, S-T-O-R-Y, place, city is Alhambra, California 91801.

Q. Is that your business address, Dr. Sahu?

1 Q. Solely a safety device?

2 A. That's the main reason for the presence.

3 Q. Are you aware of any post-combustion options
4 for reducing emissions from flares?

5 A. How do you mean? You mean capture the
6 exhaust gases after the flare?

7 Q. Yeah. Any event that occurs post flare.

8 A. I don't know of any.

9 Q. Are you aware of any precombustion options
10 for reducing emissions from flares?

11 A. Yes.

12 Q. And that would mean -- simply mean,
13 controlling what goes to the flares?

14 A. It means controlling how much and what goes
15 to the flares.

16 Q. Okay.

17 A. It could mean other controls, add-on
18 controls, that would affirmatively and assuredly
19 destroy compounds before they go to the flare.

20 Q. Now, I need to get some clarification.

21 When I looked at your rebuttal report, you
22 had something in there about the SSEM start-up
23 shut-down emission minimization plan.

24 Do you recall that?

25 A. Yes. I use that terminology in the rebuttal

1 Q. Anything else?

2 A. Well -- and if, for whatever reason,
3 emission limits were deemed to be inappropriate, then
4 you would look at enforceable work practice
5 standards.

6 Q. I'm sorry. What was that last part of your
7 answer? I apologize.

8 A. I said if, for some reason, emission limits
9 were determined to be inapplicable, and I don't see
10 why they would be but just in the case that they
11 would be, you would look at enforceable work practice
12 standards.

13 Q. Work practice standards, do you mean the
14 SSEM plan?

15 A. What I mean is enforceable meaning they
16 would appear in the permit as specific requirements
17 with enforcement ability.

18 Q. And if you couldn't place emission limits on
19 the flares, then you'd rely on the work practices for
20 controlling SO2 emissions from the flares?

21 A. Right. But you first have to establish that
22 you cannot have emission limits. And only then, move
23 onto work practice standards.

24 Q. Well, let me ask it this way. And we can
25 move on. I'll try to get over this topic here.

1 As we sit here today, do you have any
2 evidence, facts, or other information that the
3 control option for controlling SO2 emissions from the
4 flares would be in any way different had the DEQ
5 conducted this top-down BACT analysis for SSM
6 emissions?

7 A. I can't rule that out.

8 Q. I'm just asking if you have the facts,
9 information, or evidence then we can discuss it. If
10 not, we'll move on.

11 A. Well, I'm saying if you did a top-down
12 analysis, you would consider numerous other options
13 that were not considered as part of the analysis.
14 And one or more of those could have resulted in the
15 BA- -- being BACT for this.

16 Q. But do you have that information, facts, or
17 evidence, as we sit here today?

18 A. Maybe I don't follow your question. I just
19 gave you my opinion that -- because the BACT analysis
20 was not done, how can you prejudge that something
21 could not have become BACT. That's hard for me to
22 understand.

23 Q. That must mean that you didn't do an
24 independent analysis to answer that question?

25 A. I did not do a BACT analysis for the SSM

1 events.

2 Q. And hence, you don't know the answer to my
3 question?

4 A. Correct. But I do know I cannot say -- I
5 thought that's what your question asked, is whether
6 it would be any different from the SSEM plan
7 currently proposed.

8 Q. Okay. Now, are you aware -- you mentioned
9 the state of Iowa as imposing emission limits on
10 flares.

11 Do you recall that? I think it was in your
12 rebuttal report?

13 A. Correct.

14 Q. Are you aware of any other states that have
15 impose emission limits on flares other than the state
16 of Iowa?

17 A. I didn't -- again, have not done a full
18 survey of what every state is doing for different
19 types of industrial flares.

20 Q. Right. So at this point in time, the only
21 state you're aware of is the state of Iowa?

22 A. I had that example before me, and I gave
23 that example in my rebuttal report.

24 Q. And how was it you became aware of the
25 permit in that case that imposed emission standards

1 Q. But I'm talking about where they're required
2 to use on the facility?

3 A. I don't know all the local rules and
4 requirements from every part of the country.

5 Q. Would it be fair to say, though, that in
6 this particular instance, you didn't -- you
7 personally, in connection with formulating your
8 opinions, you personally did not do a BACT analysis
9 for equipment leaks for this facility?

10 A. I did not do a BACT analysis for this
11 facility.

12 Q. Are you familiar with the RACT/BACT/LAER
13 Clearing House?

14 A. Yes.

15 Q. What's your understanding as to what that
16 is?

17 A. Well, it's a database that is maintained by
18 EPA in which states and other permitting authorities
19 submit information relating to technology assessment
20 pursuant to RACT, to BACT, to LAER, as to make those
21 determination. Generally, on volunteer basis,
22 although not always.

23 Q. Have you ever used that resource?

24 A. Sure.

25 Q. Did you review that resource that is the

1 MS. ISSOD: Objection. If you are referring
2 to a document, the document is not in front of the
3 witness.

4 THE WITNESS: I believe EPA continues to not
5 bar the states from using PM2.5 directly and not rely
6 on the surrogate policy.

7 BY MR. COPPEDE:

8 Q. Do you have any information in this case
9 that the Wyoming division of air quality was
10 prohibited from analyzing PM2.5 by using EPAs PM10
11 surrogate policy?

12 MS. ISSOD: Objection. Calls for a legal
13 conclusion.

14 THE WITNESS: Would you mind restating the
15 question. I didn't get the last part of it.

16 BY MR. COPPEDE:

17 Q. You bet.

18 Do you have any information that the Wyoming
19 division of air quality was prohibited from analyzing
20 PM2.5 by using EPAs PM10 surrogate policy?

21 A. I don't.

22 Q. Do you know whether the EPAs has promulgated
23 any rules on significant impact levels on PM2.5?

24 A. Not final rules. I'm aware of proposed
25 rules.

1 Q. Do you know whether the EPA has promulgated
2 any rules for significant monitoring concentrations?

3 A. Not final rules.

4 Q. Now, I noticed in your report you referred
5 to the Highwood Generating Station in Sunflower
6 Electric Power Holcomb station?

7 A. Yes.

8 Q. Did those cases involve coal-fire boilers?

9 A. The highwood certainly did. Both of them
10 did, yes.

11 Q. You looked at those two cases in connection
12 with emission sources for PM2.5 in this case?

13 A. Well, I gave Highwood as an example where it
14 was not only emissions but BACT analysis for PM2.5.

15 Q. Were the emission sources for the PM2.5 and
16 the Highwood Generating Station and Sunflower
17 Electric & Power, Holcomb station cases involve
18 coal-fire boilers?

19 A. Among others, boilers certainly were part of
20 the emission sources.

21 Q. But were the emission sources for that
22 particular matter PM 2.5 from coal-fired boilers?

23 A. I don't recall that the boilers were the
24 only source of PM2.5 in those plants.

25 Q. Do you recall what the other sources were

1 probably five or more years ago.

2 But I teach at quality classes. So I do
3 dispersion modelling as part of my teaching work as
4 well.

5 Q. When you did your dispersion modelling five
6 or six years ago, whenever it was you last did it,
7 what models did you use specifically?

8 A. Back then, I was using ISCST, which was the
9 EPA-approved model, the regulatory model, one of the
10 EPAs regulatory models.

11 Q. I take it then you didn't do any dispersion
12 modelling in connection with your opinions about this
13 case?

14 A. That's correct.

15 Q. Did you ever do any modelling fugitive
16 particulate emission?

17 A. You mean in this case or in general?

18 Q. Let's say in general.

19 A. Yeah. I've done that in the past.

20 Q. When was the last time you did any modelling
21 for fugitive particulate emissions?

22 A. Probably ten years ago.

23 Q. I take it, then, you didn't do any fugitive
24 particulate emission models in this case; is that
25 correct?

1 A. I did not.

2 MR. COPPEDE: I think I'm done. Can I just
3 take another short break.

4 THE WITNESS: Please.

5 (Recess.)

6 MS. VEHR: On the record.

7

8

EXAMINATION

9 BY MS. VEHR:

10 Q. I want to ask you a couple questions on a
11 document that you provided from that zip drive that I
12 we got this morning.

13 A. Okay.

14 Q. And it's PDF entitled, M bow, space, med,
15 space, bow, space, Ron. That PDF. And it appears
16 to be a list of e-mails, correspondence. It's about
17 66-pages long. So when I ask you questions, I've got
18 to scroll down since I don't have a printout.

19 A. Okay.

20 Q. I'd like to ask you questions about it.

21 A. Okay.

22 Q. And do you remember that document on your
23 PDF?

24 A. Basically, I had submitted -- provided all
25 my e-mails to counsel, and they had PDFed it, and

CERTIFIED COURT REPORTERS/VIDEOGRAPHERS

1 STATE OF CALIFORNIA)
2 COUNTY OF SAN BERNARDINO) ss.

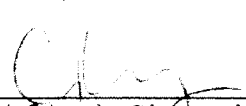
3 I, CLAUDIA REYES, CSR No. 12812, a Certified
4 Shorthand Reporter, in and for the County of San
5 Bernardino, State of California, do hereby certify;

6 That prior to being examined, the witness
7 named in the foregoing deposition, was by me duly
8 sworn to testify the truth, the whole truth, and
9 nothing but the truth;

10 That said deposition was taken before me at
11 the time and place herein set forth, and was taken by
12 me in shorthand and thereafter transcribed into
13 typewriting under my direction and supervision, and I
14 hereby certify that the said deposition is a full,
15 true and correct transcript of my shorthand notes so
16 taken;

17 I further certify that I am neither counsel
18 for nor related to any party to said action, nor in
19 any way interested in the outcome thereof.

20 IN WITNESS WHEREOF, I hereunto subscribe my
21 name this 6th day of November, 2009 .

22
23 
24 Certified Shorthand Reporter in and
25 For the County of San Bernardino,
State of California