

BEFORE THE ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING

IN THE MATTER OF:)
BASIN ELECTRICAL POWER COOPERATIVE)
DRY FORK STATION,) Docket No. 07-2801
AIR PERMIT CT-4631)

**RESPONDENT DEPARTMENT OF ENVIRONMENTAL QUALITY'S
MEMORANDUM IN SUPPORT OF MOTION FOR PARTIAL SUMMARY
JUDGMENT**

Exhibit No. 10 – Sahu Deposition excerpts

BEFORE THE ENVIRONMENTAL QUALITY COUNCIL
OF THE STATE OF WYOMING

DEPOSITION OF: RANAJIT SAHU, Ph.D., QEP, CEM
EXAMINATION DATE: August 15, 2008

IN THE MATTER OF:)
) Docket No. 07-2801
BASIN ELECTRIC POWER) Presiding Officer,
COOPERATIVE, DRY FORK STATION,) F. David Searle
AIR PERMIT CT-4631)

PURSUANT TO NOTICE, the deposition of RANAJIT SAHU, Ph.D., QEP, CEM, was taken at 8:04 a.m., on August 15, 2008, at 555 Seventeenth Street, Suite 3200, Denver, Colorado 80202, before Patricia S. Newton, Registered Professional Reporter and Notary Public in and for the State of Colorado, said deposition being taken pursuant to the Wyoming Rules of Civil Procedure.

Patricia S. Newton
Registered Professional Reporter

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1 PROCEEDINGS
 2 NOT YET PROOFREAD *** NOT YET PROOFREAD
 3 The material contained in this file has not been
 4 proofread. Any reference to page and line number
 5 may not be accurate. Please do not quote from
 6 this draft as this is not certified by the
 7 reporter. It is for review only.

RANAJIT SAHU, Ph.D., QEP, CEM

The deponent herein, being first duly
 sworn to testify to the truth in the above cause,
 was examined and testified on his oath as
 follows:

MR. DAY: Robin, I've handed
 Dr. Sahu a copy of his expert report and his
 expert rebuttal report. I thought, unless you
 had an objection, that rather than make them
 deposition exhibits and require us all to pay for
 multiple more copies of these large documents, I
 wouldn't make them exhibits. But if you want
 them exhibits, you can. But on the assumption
 you might not, I asked Dr. Sahu to confirm that
 I've given him two complete and accurate copies.

EXAMINATION

BY MR. DAY:

Q Can you do that, Dr. Sahu?

A Well, I have, in the last five
 minutes or so, just to be fair, glanced at it,

1 INDEX
 2 EXAMINATION BY: PAGE
 3 Mr. Day 4
 4 Mr. Esch 303
 5 Ms. Cooley 319

6 INDEX OF EXHIBITS
 7 DEPOSITION PAGE FIRST
 8 EXHIBIT NO. DESCRIPTION APPEARS
 9 1 7/1/08 Rebuttal Expert Report of 5
 10 Ranajit Sahu, with numerous
 11 attachments
 12 2 5/1/08 Expert Report of Ranajit 32
 13 Sahu on Behalf of Protestants,
 14 with numerous attachments
 15 3 Page 6-53 of the Wyoming rules 98
 16 re BACT
 17 4 6/16/03 Expert Report and 169
 18 Analysis - Basin Electric Power
 19 Cooperative's Dry Fork Station
 20 Power Plant
 21 (Original exhibits are attached.)
 22
 23
 24
 25

and I haven't done a page-by-page comparison.
 It looks -- the expert report looks
 like it has all the citations. I just thought
 there were some Internet footnote citations that,
 you know, were provided that I didn't -- maybe I
 missed them. I didn't see them printed and
 copied. So as long as one can click on them and
 get to the Internet, I suppose they are complete.

Q Well, let's go ahead and make
 these two that I've marked formal deposition
 exhibits. That way, if there's ever a question
 about whether or not we haven't fully copied
 something, we'll be able to answer it.

A Yeah, I just -- again, based on a
 very quick look that you've given me.

Q Well, we won't take any chances.
 Dr. Sahu, I'm going to hand you what
 we've marked as Deposition Exhibit 1. Can you
 identify it for us, please.

A It appears to be a copy of my
 rebuttal expert report in this case.

Q Okay. I want to ask you some
 questions first about your analysis on
 subcritical versus supercritical.

Can you tell me first, where did you

1 12, it says -- the last sentence says,
 2 "Therefore, wet electrostatic precipitators...and
 3 fabric filter materials should have been
 4 considered in the BACT analysis."
 5 Do you see that?
 6 A Yes.
 7 Q Could you please list for me the
 8 specific fabric-filter materials that you contend
 9 should have been considered.
 10 A I can't tell you off the top of
 11 my head. There are probably two or three. There
 12 aren't that many major fabric-filter manufac-
 13 turers in this country. They have a variety of
 14 bag materials that may be appropriate for the
 15 type of dust that's going to come off of the
 16 boiler and control system. That should have been
 17 considered.
 18 Q Well, when you wrote the -- when
 19 you wrote in your expert report the phrase
 20 "appropriate fabric filter materials" --
 21 A Right.
 22 Q -- which fabric-filter materials
 23 did you specifically have in mind?
 24 A If you look at the previous page,
 25 I think I was speaking to Teflon or PTFE type of

1 I mean, EPA has been doing evaluations of various
 2 types of coatings through their technology
 3 evaluation program, working with the baghouse
 4 vendors in different bag types and coating types,
 5 and they've been successful, at least based on
 6 the test results that they've been getting, to
 7 controlling PM2.5 with certain combinations of
 8 these bags and coatings or bags or coatings.
 9 Q Okay. And so am I reading your
 10 report correctly to say that you're suggesting
 11 here that a baghouse filter that includes the
 12 PTFE coating would do -- would be able to at
 13 least help control PM2.5?
 14 A Right. I'm saying you're already
 15 going to have a baghouse for this boiler, and
 16 it's going to have bags on it.
 17 Q Right.
 18 A With a somewhat little bit of
 19 extra effort in terms of the bag selection, one
 20 can also control PM2.5, the fine particulates.
 21 Q Okay. That would be like coating
 22 of the PTFE?
 23 A Yeah, I gave that as an example
 24 because I thought I saw some test data on that,
 25 some vendor claims on that, that seemed to be

1 bags and coatings.
 2 Q Okay. So that's what you mean by
 3 specific fabric filters at the end of that
 4 paragraph?
 5 A Right. It could be more besides,
 6 but certainly those types.
 7 Q What does "PTFE" stand for?
 8 A I think it's polytetrafluoro-
 9 ethylene. It's a polymer.
 10 Q Is that a coating or a bag
 11 material?
 12 A I believe that's a coating.
 13 Q And explain to me how coatings
 14 work with respect to baghouses.
 15 Is this a separate coating that's
 16 applied to the fabric filter that might otherwise
 17 be employed for larger particles?
 18 A Yeah, it could be -- a coating as
 19 distinct from bag material itself is the coating
 20 that would go on the substrate, which is the bag
 21 itself. Okay. So what somebody would want to
 22 look at for control of PM2.5 would be to use a
 23 baghouse filter and then apply this particular
 24 PTFE coating?
 25 A Right. And that's an example.

1 very promising.
 2 Q Okay. If you look at paragraph
 3 2, there's a sentence that refers to the Seitz
 4 memo, and it goes on to say that "concerns about
 5 monitoring and modeling PM2.5 have been largely
 6 resolved."
 7 Do you see that?
 8 A I think I was quoting that from
 9 -- that "largely resolved" phrase I think came
 10 from a Federal Register maybe preamble relating
 11 to the PM2.5.
 12 Q You're talking about the "largely
 13 resolved" language? Or which language are you
 14 quoting?
 15 A I thought that "largely resolved"
 16 language. Isn't that the sentence you wanted me
 17 to look at?
 18 Q Well, I was going to ask you what
 19 you meant by "largely resolved."
 20 A I believe that is a quote -- or
 21 that is taken from EPA's FAR notice directly.
 22 But what I understand from it is these issues,
 23 while they were technical hurdles back when the
 24 Seitz memo was written in 1997, I believe, have
 25 since, in the intervening decade, been addressed.