

BEFORE THE ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING

IN THE MATTER OF:)
BASIN ELECTRICAL POWER COOPERATIVE)
DRY FORK STATION,)
AIR PERMIT CT-4631)

Docket No. 07-2801

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

Exhibit No. 6 – Jenkins Deposition excerpts

BEFORE THE ENVIRONMENTAL QUALITY COUNCIL
OF THE STATE OF WYOMING

DEPOSITION OF: STEPHEN D. JENKINS
EXAMINATION DATE: August 13, 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
STEPHEN D. JENKINS, was taken at 8:06 a.m., on
August 13, 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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23 Also Present: Michael Fowler
 24
 25

1 PROCEEDINGS
 2 STEPHEN D. JENKINS
 3 The deponent herein, being first duly
 4 sworn to testify to the truth in the above cause,
 5 was examined and testified on his oath as
 6 follows:

7 EXAMINATION
 8 BY MR. ANGELL:

9 Q Thanks for coming, Mr. Jenkins.
 10 I'm Jim Angell, and I represent the
 11 plaintiffs in this case.

12 Have you been deposed before?

13 A Yes, I have.

14 Q Okay. So I'll just do a brief
 15 rundown of the drill, and if you have any
 16 questions, please go ahead and ask me.

17 Is there any reason you're not prepared
 18 to testify today?

19 You're not on any medications that clog
 20 your judgment or memory or anything like that?

21 A I'm not on any medications that
 22 would do that.

23 Q All right. You know that you
 24 were just sworn in under oath and, therefore,
 25 your testimony is under penalty of perjury, just

1 INDEX
 2 EXAMINATION BY: PAGE
 3 Mr. Angell 4
 4 Mr. Ruppert 297

5 INDEX OF EXHIBITS
 6 DEPOSITION PAGE FIRST
 7 EXHIBIT NO. DESCRIPTION APPEARS
 8 1 Undated document titled "Jenkins 6
 Report and Jenkins Exhibit 1"
 9 2 Undated document titled 249
 "Opportunities to Expedite the
 10 Construction of New Coal-Based
 Power Plants"
 11 3 7/1/08 "Response to Statement of 283
 Stephen D. Jenkins"

12 (Original exhibits are attached.)
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 15
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1 as if you were in a court?
 2 A Yes.
 3 Q You're aware of that.
 4 Your counsel may raise objections --
 5 I hope not; I'll do my best to avoid them -- but
 6 you understand that if he does, for the most part
 7 you'll have to go ahead and answer the question
 8 regardless. We don't have a judge here to go
 9 ahead and rule on objections, obviously; so he
 10 may need to make his record. But if I insist
 11 that you answer the question, you'll need to go
 12 ahead and answer it. There are some limited
 13 exceptions, but I don't think they're going to
 14 apply here.

15 So do you understand that, as well?

16 A Yes, I do.

17 Q All right. I'm not interested in
 18 playing a game of "gotcha" or something like
 19 that. So, please, if you don't understand a
 20 question that I ask, please, let's go ahead and
 21 ask me to clarify it, so -- we want a clean -- a
 22 clean conversation here as much as possible. We
 23 don't want to waste our time, only to find
 24 several minutes later that we've been misunder-
 25 standing one another.

1 the way?

2 A No. And, again, I was not an
3 author of the 2005 report; so I'll be -- you ask
4 the questions, and I'll answer to the best of my
5 ability on what these are.

6 Q You were an author of the first
7 2007 report, weren't you: the Exhibit -- it's
8 Exhibit 3. It's towards the back.

9 You are listed as an author of the
10 June 26, 2007 report?

11 A I was an author of that.

12 Q If you would rather, we could
13 look at . . .

14 A Let's see if I have a better one.

15 Q It looks like the same one to me:
16 Figure 3 on page 6.

17 A Yes. Okay. It was my most
18 recent report that has another. But this is just
19 as good as any. It's a general IGCC diagram.

20 Q Okay. Can you walk me through
21 that?

22 A Sure.

23 Q Just generally.

24 A This is -- these are more block
25 diagrams than systems, so I'll describe what's

1 A Yes.

2 Q All right. Go ahead, if you
3 could just walk me through.

4 A We start with coal, or whatever
5 the feedstock would be. And I would like to make
6 that fine distinction here in that in a coal-
7 based IGCC plant, the coal is a feedstock to a
8 chemical process; whereas in the PC plant that I
9 just finished discussing, it is a fuel; and those
10 are two very different and distinct words and
11 uses.

12 Q Well, let's clarify those,
13 because I was -- I had a question about what is
14 the difference between a feedstock and a fuel.
15 So if you could explain the difference to me.

16 A The fuel is what enters the
17 combustion process. For example, in the PC
18 boiler, the coal is combusted in the boiler, and
19 the carbon in that coal is combined with oxygen
20 to make carbon dioxide: that process we call
21 combustion. It is a direct fuel and it burns,
22 and we -- "burn" is a fairly simple term, but it
23 describes what occurs in the combustion process.
24 Something is reacting with oxygen and forming
25 CO2. And we burn coal, we burn gasoline in our

1 here.

2 And the nature of this diagram for IGCC
3 is in combining and integrating the gasification
4 plant, which comes from the chemical industry,
5 and the combined-cycle plant, which comes from
6 the power industry.

7 Q I'm sorry, can I just stop you
8 for -- you said it comes from the chemical
9 industry?

10 A Yes.

11 Q I thought -- it seems like one
12 thing everyone says when talking about the
13 history of gasification, they say it came from
14 town gas. Is that not right?

15 That was its earliest application?

16 A Early applications were more in
17 the use of pyrolysis, which is somewhat different
18 from gasification; but that's where the produc-
19 tion of town gas graduated into the gasification
20 in the late 1700s. I would consider that a
21 chemical process.

22 Q Okay. Well, maybe you'll explain
23 to me why that's so.

24 Anyway, the two parts of the plant are
25 above and below the dotted line; is that right?

1 cars, and the same thing occurs: gasoline.

2 Q That's --I'm sorry.

3 A Gasoline is the fuel that
4 combusts in an internal-combustion engine that
5 makes our automobiles run.

6 Q Combustion is itself, some are
7 saying, a chemical process, isn't it?

8 A A type of one, yes.

9 Q Okay.

10 A Because carbon is reacting with
11 oxygen but fully going to carbon dioxide.

12 Q Uh-huh. So -- I'm sorry, so the
13 key part of definition of "fuel" for you is what?

14 A The fuel is what is combusted.

15 Q The fuel is what is combusted?

16 A Yes. You do not want coal to
17 combust in an IGCC plant.

18 Q So --

19 A If the coal is combusted,
20 something has gone very wrong.

21 Q Okay. And you say that's the
22 defining feature of a fuel: is the thing that is
23 combusted?

24 A Yes.

25 Q It's not the source of the

1 energy; it's the thing you light up?
 2 A Whether it's wood or coal or
 3 gasoline, that's what is burned.
 4 Q And in the PC plant where there's
 5 treated coal, is that sometimes treated with
 6 chemicals? Right?
 7 A Yes.
 8 Q Then -- so that's all -- that
 9 stuff isn't removed before combustion, is it?
 10 A No. You add it in prior to
 11 combustion in the case we discussed: to keep it
 12 from freezing or whatever.
 13 Q Right. Whatever those chemicals
 14 are, are also combusted or affected by the
 15 combustion process, as well?
 16 A It depends on what they are and
 17 whether they're combusted or not. They may not
 18 combine with oxygen; they may not combust.
 19 Q Which ones do and which ones
 20 don't?
 21 A If you were to add some kind of
 22 mineral treatment like calcium, calcium does not
 23 combust. There's no flame when you add oxygen to
 24 calcium.
 25 Q Is there some reason you would

1 add calcium to coal?
 2 A To change the nature of the ash.
 3 Q So folks do this?
 4 A Some have, yeah. It's -- it's
 5 rare with PC boilers.
 6 Q And what -- are there other
 7 chemicals that do combust that are added?
 8 A Some of the organic type of
 9 chemicals that you might use for de-icing have
 10 carbon in them and they might combust. I don't
 11 -- they're used in such small quantities, that I
 12 don't know that anyone's ever considered what
 13 happens to those when those materials go through
 14 the boiler with the coal.
 15 Q So no one considers them part of
 16 the fuel?
 17 A It's part of the coal, but they
 18 may or may not combust.
 19 Q It's part of the coal? A mineral
 20 -- I'm just envisioning, no doubt incorrectly,
 21 they're spraying something on top of the coal.
 22 A Yes.
 23 Q It doesn't then become part of
 24 the coal, does it?
 25 A Well, it's around the coal and it

1 may come out with the ash.
 2 Q Or it may combust?
 3 A It might combust.
 4 Q But no one considers that part of
 5 the fuel?
 6 You wouldn't consider that part of the
 7 fuel?
 8 A It's not what you're -- the
 9 primary reason for having combustion. That's for
 10 making heat with that coal that you just bought
 11 and that you just crushed and that you just blew
 12 in the boiler.
 13 Q And then the defining feature of
 14 fuel is it's a thing that combusts?
 15 A That's what it's for. And we
 16 combust coal for heat, we combust gasoline to
 17 expand in an internal-combustion engine and push
 18 a piston, and we combust wood in our fireplaces
 19 for heat, and that act of burning creates heat.
 20 Q In a nuclear plant --
 21 Do you know anything about nuclear
 22 plants?
 23 A Very little.
 24 Q No doubt more than I.
 25 But my understanding is that there's

1 -- is there combustion going on?
 2 A I think if there is, then
 3 something has gone horribly wrong in that plant.
 4 Q That's my guess, as well. But
 5 nevertheless, there are -- there's a fuel there,
 6 is there not?
 7 You hear about fuel rods.
 8 A Yes, that's what they call them.
 9 Q Would you consider that a fuel?
 10 A I would not -- I'm not an expert
 11 in nuclear power and -- that may be a terminology
 12 that they use.
 13 Q So for your definition, it
 14 wouldn't be a fuel; is that right?
 15 A It doesn't combust. It shouldn't
 16 combust.
 17 Q And, therefore, is not a fuel?
 18 A Not as far as I'm concerned,
 19 yes --
 20 Q In your eyes?
 21 A -- for the purposes of what we're
 22 talking here with PC boilers and IGCC and
 23 gasification.
 24 Q Is there a technical definition
 25 you're applying here, I mean, a regulatory