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**BEFORE THE
ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING**

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

**RESPONSE TO PLAINTIFF'S FIRST SET OF DISCOVERY REQUESTS
TO MEDICINE BOW**

COMES NOW, Medicine Bow Fuel and Power, LLC (MBFP), the Permittee, by and through its undersigned attorneys, and herby respectfully Responds to Petitioner's First Set of Discovery Requests to MBFP as follows:

GENERAL OBJECTIONS

1. MBFP objects to Petitioner's Discovery Requests and the definitions contained therein to the extent they purport to impose obligations beyond those imposed by the Federal Rules of Civil Procedure.
2. MBFP objects to Petitioner's Discovery Requests to the extent they may be construed to request disclosure of information that was prepared in anticipation of litigation,

constitutes attorney work product, discloses the mental impressions, conclusions, opinions, or legal theories of any attorneys, contains privileged attorney-client communications, contains confidential or proprietary information, or is otherwise protected from disclosure under applicable privileges, laws or rules.

3. MBFP objects to Petitioner's Discovery Requests to the extent they call for Permittee to provide information that is not relevant to the subject matter involved in the pending action, or that is not reasonably calculated to lead to the discovery of admissible evidence.

4. MBFP objects to Petitioner's Discovery Requests insofar as they are vague, ambiguous, or cannot be adequately understood without clarification or definition of the vague or ambiguous words or phrases.

5. MBFP objects to Petitioner's Discovery Requests to the extent they require to MBFP provide information that is publicly available or otherwise is as equally accessible to Petitioner as it is to MBFP.

6. MBFP reserves its right to supplement, amend, or modify its responses as discovery proceeds, and to rely on any such information discovered subsequent to the time of these responses, at any time up to and including hearing.

7. MBFP further reserves its right to correct any responses to any discovery request made as a result of mistake or inadvertence, and to assert any applicable objections at any time up to and including hearing.

8. Except as expressly admitted in these responses, no facts should be taken as admitted, implied, or inferred from these responses.

9. No inference as to the existence of any responsive information or documents should be made from the assertion of any objection to any discovery request.

10. These responses are made without in any way waiving or intending to waive, but on the contrary intending to preserve and preserving, (a) all objections to competency, relevancy, materiality, privilege and admissibility; (b) the right to object to the use of any information which may be provided at the hearing of this or any other action on any ground' and (c) the right to object on any ground at any time to further discovery or other discovery proceedings involving the subject matter of Petitioner's Discovery Requests.

11. MBFP objects to Petitioner's Discovery Requests to the extent that they were not presented in a format consistent with the Wyoming Rules of Civil Procedure.

12. MBFP hereby incorporates by reference these General Objections into each specific response to Petitioner's Discovery Requests.

Subject to the foregoing, MBFP responds to Petitioner's Discovery Requests as follows:

REQUESTS FOR ADMISSION

REQUEST NO. 1: Please admit that malfunctions of the Medicine Bow Facility will occasionally occur.

RESPONSE: MBFP objects to this request as "occasionally" and "malfunction" are vague and ambiguous and the request calls for speculation. Without waiving these objections, MBFP admits malfunctions may occasionally occur, as with any operating facility.

REQUEST NO. 2: Please admit that Medicine Bow did not provide a BACT analysis for emissions from the flares to WYDEQ.

RESPONSE: MBFP objects to this request as it is legally irrelevant since the flares are control devices and a BACT analysis from MBFP was not required in the Application. Without waiving this objection, MBFP admits with qualifications. The flare provides emission control (and safety control) for sources that would otherwise vent to the atmosphere, as detailed in

Section 4 of the application. Thus, even though MBFP did not specifically provide a BACT analysis for the flares, the WDEQ, on the other hand, considered BACT for the flares and determined that the SSM plan represents BACT for the flares. (Section IV.6 of the Decision Document). In addition, WDEQ requires monitoring and recordkeeping to insure the presence of a pilot light and to insure the flares remain smokeless. (Section IV.35 of the Decision Document).

REQUEST NO. 3: Please admit that Medicine Bow did not provide a BACT analysis for emissions from the fugitive component leaks to WYDEQ.

RESPONSE: Deny. Please Refer to page 4-1 of the Application, as revised. Table 4.1 clearly notes BACT being required under PSD for VOCs, which is the pollutant of concern for fugitive component leaks. Additionally, Page 4-3, Table 4.2 presents a summary of BACT determinations, showing an LDAR program as BACT for "Equipment Fugitives." Finally, Section 4.7, starting on page 4-27 of the application, is the BACT analysis for fugitive component leaks (referred to as "Process Fugitive Emissions" in Section 4.7)

REQUEST NO. 4: Please admit that the Application estimated emissions of methanol over 10 tpy.

RESPONSE: MBFP objects to this request in that the definition of "Application" is too narrow and does not take into account changes and additions made to the Application during the course of WDEQ review; including subsequent correspondence between WDEQ and MBFP. As such the request seeks irrelevant information. Without waiving this objection, MBFP admits this request with qualifications.

The Application as submitted on 12/31/07 estimated potential-to-emit facility-wide methanol emissions over 10 tpy. However, in response to a request for additional information

from the WDEQ and based on updated information regarding the components, MBFP submitted information to WDEQ on September 30, 2008, which included an enforceable design basis justifying the less conservative estimate for methanol emissions.

REQUEST NO. 5: Please admit that Medicine Bow did not consider coal cleaning in its BACT analysis.

RESPONSE: MBFP objects to this request as it is not legally relevant. Without waiving this objection, MBFP admits with qualifications. Coal cleaning would be an inherent design change, inappropriate for this Facility's technology and location, as well as this application.

REQUEST NO. 6: Please admit that Medicine Bow utilized a top-down BACT analysis pursuant to the EPA's 1990 New Source Review Workshop Manual.

RESPONSE: MBFP objects to this request because it is compound and is otherwise too general a statement to either admit or deny. Without waiving and subject to these objections, MBFP admits this request.

INTERROGATORIES

INTERROGATORY NO. 1: For every Request for Admission that Medicine Bow either denied or admitted with qualification, please state the specific basis for such denial or qualified admission, and identify all documents forming the basis for any denial or qualified admission.

ANSWER: See MBFP's responses to Sierra Club's requests for admission, which are incorporated herein by this reference.

INTERROGATORY NO. 2: Please estimate how often Medicine Bow expects to start-up the Facility each year and provide a detailed explanation how this estimation was obtained. Please estimate the emissions of each regulated pollutant from the flares associated

with this estimate of starts. Please explain the difference between starts and cold starts.

ANSWER: MBFP objects to this interrogatory because it is overbroad and unduly burdensome. MBFP further objects to this interrogatory because it calls for speculation and seeks information not relevant to this appeal. Without waiving and subject to these objections, please see the November 11, 2008 letter from Jude Rolfes to WDEQ regarding SO₂ emissions for normal operations.

A cold start is a complete plant startup after an extended shutdown where all units are cooled and placed in standby. This startup is characterized by more syngas flaring since the downstream units will not be online at the time of gasifier light off and will require some time to ramp up. Cold starts are planned for the initial plant startup and the startup after planned shutdowns approximately every four years, but there are no other planned shutdowns requiring a cold start. Cold startup emissions are in Appendix B.

A warm start will require less flaring, if any. This will only occur as a result of a malfunction shutting down the plant. A warm start can occur if the malfunction is identified and corrected quickly.

The Application, as revised, at Appendix B references flare emissions.

INTERROGATORY NO. 3: Please estimate how many Facility malfunctions will occur each year and provide a detailed explanation how this estimation was obtained. Please estimate the emissions of each regulated pollutant from the flares associated with this estimate of malfunctions.

ANSWER: MBFP objects to this interrogatory because it is overbroad and unduly burdensome. MBFP further objects to this interrogatory because it calls for speculation and seeks information not relevant to this appeal.

Without waiving and subject to these objections, MBFP states that its estimated emissions are in the Application, as revised, Section 3.2.4 and Appendix B. Flares are discussed at 3.2.6.4.

INTERROGATORY NO. 4: Please explain the basis for Medicine Bow's position that the Facility's emissions of SO₂ will not include the SO₂ emission estimates that Medicine Bow provided in the Application for malfunctions and starts.

ANSWER: MBFP objects to this interrogatory as it misstates the company's position and therefore, it is impossible to respond. Please see Response to Petition at Paragraphs 35-47.

INTERROGATORY NO. 5: Please estimate how many shutdown events will occur each year at the Facility and provide a detailed explanation how this estimation was obtained. Please estimate the emissions of each regulated pollutant from the flares associated with this estimate.

ANSWER: See MBFP's answer to Interrogatory No. 2 as startup and shutdowns are directly related.

INTERROGATORY NO. 6: Please estimate how many maintenance events will occur each year and provide a detailed explanation of how this estimation was obtained. Please estimate the emissions of each regulated pollutant from the flares associated with this estimate.

ANSWER: See MBFP's answer to Interrogatory No. 2 which is incorporated herein by this reference. Please see the November 11, 2008 letter from DKRW to WDEQ which provides information to the agency regarding planned maintenance and related emissions; as well as MBFP 1.

INTERROGATORY NO. 7: Please provide a final count of components for the Facility, and provide the number of various components including valves, pumps, compressors, and connectors.

ANSWER: MBFP objects to this interrogatory because it is overbroad and unduly burdensome. Without waiving and subject to this objection, MBFP states that the final count will be available when the plant is about to be commissioned. The permit requires an “as built” final component count. Please see the Decision Document.

INTERROGATORY NO. 8: Please explain how Medicine Bow estimated emissions from fugitive component leaks.

ANSWER: Section 3.2.6.3 of the permit application, on page 3-9, provides 2 paragraphs describing the process for estimating fugitive component leaks. Pages B-30 through B-47 in Appendix B of the application provide detailed calculation sheets for all fugitive component leak calculations, including details on the stream compositions, emission factors, source of emission factors, percent control achieved through the LDAR program, and assumed component count.

INTERROGATORY NO. 9: Please provide all calculations and explain how Medicine Bow estimated methanol emissions of 9.2 tpy. Please explain any and all changes that led Medicine Bow to reduce its methanol estimate from the initial Application.

ANSWER: See the response to Request for Admission No. 4 above and Answer No. 8 above. In addition, see page B-42 in the Application, as revised. Due to planned design changes with methanol sample connections, the number of sampling connection components requiring purging was reduced compared to the original conservative estimate, thus lowering the calculated potential-to-emit emission rate. Further detail is provided in the “Equipment Leaks” emission calculation pages in Appendix B of the Application, as revised, beginning on B-32. Each calculation page represents a section of processing piping, and each calculation page provides the estimated component count for all planned piping components expected to emit

VOC through equipment leaks. Included in these component counts are the number of “sampling connections,” representing sampling connections requiring purging. The Application included a total of 30 open-ended sampling connections for methanol piping. As a result of the design changes to sampling connections, these emission calculation pages now include only 22 open-ended sampling connections from methanol piping. Any additional sampling lines designed and constructed by MBFP must be closed-loop sampling lines, which by definition, do not result in equipment leak emissions because no purging is required for such systems.

INTERROGATORY NO. 10: Please identify what HAP guidelines support Medicine Bow’s statement that the fugitive component leaks at Medicine Bow will be minor, as stated in Response para. 48.

ANSWER: The major source definition at 40 CFR 63, as incorporated into the Wyoming Air Quality Standards and Regulations, defines what is minor. In addition, MBFP relies on AP-42 emission factors, as updated from time to time by EPA.

INTERROGATORY NO. 11: Please explain the basis for Medicine Bow’s position that its LDAR program represents BACT.

ANSWER: In Section 4.7, page 4-27 of the Application, as revised, it is stated that LDAR is the only available control option identified to address BACT for fugitive equipment leaks. This analysis provides the basis for MBFP’s position. Refer also to WDEQ’s discussion in the decision document.

INTERROGATORY NO. 12: Please provide the capacity of the Facility’s carbon beds and explain their cleaning requirements.

ANSWER: Cleaning is not required. The absorbent will be changed out when

absorption capacity is reached or fines restrict flow through the carbon bed. Information regarding the carbon bed capacity is found in Appendix G of the Application, as revised.

INTERROGATORY NO. 13: Please explain why Medicine Bow’s maximum modeled annual-averaged PM10 24-hour concentration is much higher than its maximum modeled PM10 24-hour concentration.

ANSWER: MBFP modeled emissions in accordance with the guidance provided by WDEQ. The difference in concentration results from the application of the 1994 MOA between EPA and WDEQ. The short-term PM10 emissions from haul roads (trucks traveling on haul roads) do not have to be included in the air model in accordance with the MOA. Thus, the modeled emissions, on a [lb/hr] basis, are not included for the 24-hour model runs. However, those emissions, on a [tpy] basis, are included in the annually averaged model runs.

INTERROGATORY NO. 14: Please explain whether the total costs reported by Medicine Bow for total enclosure of the coal storage pile include both direct capital costs and indirect capital costs (annualized costs).

ANSWER: MBFP objects that this interrogatory is vague and ambiguous. Without waiving this objection, MBFP responds that the phrase “indirect capital costs (annualized costs)” is not a defined term found in the top-down BACT analysis, nor does it match terminology in well-known control costing guidance. The costs for covered storage are in the BACT analysis which is in the MBFP Air Permit Application as Appendix F.

INTERROGATORY NO. 15: Please provide the indirect capital costs (annualized costs) of a total enclosure of the coal storage pile.

ANSWER: See response to No. 14.

INTERROGATORY NO. 16: Please provide the purchase equipment costs for a total enclosure for the coal storage pile. Please identify all documentation supporting this estimate.

ANSWER: MBFP objects as this request is not relevant to the appeal. The documentation supporting the cost estimate for total enclosure is provided in the MBFP Air Permit Application Appendix F.

INTERROGATORY NO. 17: Please provide the average cost effectiveness of each control option considered for the coal storage pile and provide the underlying calculations.

ANSWER: The average cost effectiveness of a control option considered in a BACT analysis, expressed as dollars per ton of pollutant removed, is defined as the “control option annualized cost,” or TAC, divided by the difference between the “baseline emissions rate” and the “control option emission rate.” Reference page B.37 of the EPA’s New Source Review Workshop Manual (draft, Oct. 1990), and the Equation 1 presented below.

$$\text{Average cost effectiveness} = \frac{TAC}{(\text{Baseline emission rate} - \text{control option emission rate})} \quad \text{Equation 1}$$

The TAC value, also referred to as “levelized annual cost” (refer to pg. b.4 of the EPA’s New Source Review Workshop Manual for similar terminology) for each control option is presented in Table 1 of Appendix F in the MBFP Air Permit Application.

The “control option emission rate” for each option is also provided in Table 1 of Appendix F of the MBFP Air Permit Application as the “Annual PM-10 Emissions (tpy).”

AS TO OBJECTIONS

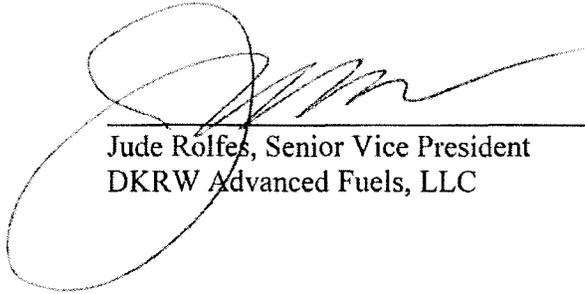


Mary A. Throne (5-2699)

VERIFICATION

I, Jude Rolfes, hereby certify that upon information and belief the foregoing interrogatory answers are true and accurate to the best of my knowledge and belief.

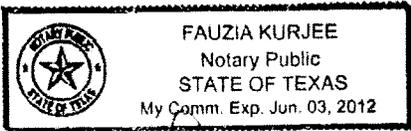
DATED this 19th day of August 2009.



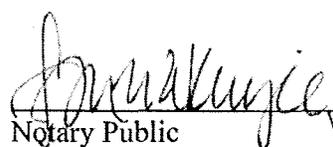
Jude Rolfes, Senior Vice President
DKRW Advanced Fuels, LLC

STATE OF TEXAS)
) ss.
COUNTY OF HARRIS)

The above and foregoing was subscribed and sworn to before me on the 19th day of August by Jude Rolfes.



Fauzia Kurjee
08/19/09



Notary Public
My Commission Expires: June 03, 2012

REQUESTS FOR PRODUCTION

REQUEST NO. 1: Please produce all documents referred to, related to, relied on, or otherwise supporting Medicine Bow's responses to Interrogatories 1-17.

RESPONSE: The documents are found in the Administrative Record and are available to Sierra Club. See also MBFP 1.

REQUEST NO. 2: Please produce any documentation and the engineering design details supporting Medicine Bow's position that malfunctions and other non-routine events will not occur at the levels estimated in the Application.

RESPONSE: MBFP objects that this request is vague and ambiguous. Without waiving this objection, there are no documents responsive to this request.

REQUEST NO. 3: Please provide a copy of EPA's May 2008 *Protocol for Equipment Leak Emission Estimates*, referenced in Response paragraph 49.

RESPONSE: The reference is to EPA's 1995 emission factors, as updated in May 2008. The link is: The website is: <http://www.epa.gov/ttn/chief/ap42/ch05/index.html> It has been updated since May 2008.

REQUEST NO. 4: Please provide all engineering drawings supporting the Facility's final component count.

RESPONSE: The permit does not require submission of a final component count until the facility is constructed. As such, there are no documents responsive to this request.

REQUEST NO. 5: Please produce any engineering sketches and related documentation of the closed loop sampling system described in Response paragraph 54.

RESPONSE: The closed loop sampling will be per the AP-42 Section 5.2.8 – “The closed-loop sampling system is designed to return the purged fluid to the process at a point of lower pressure. A throttle valve or other device is used to induce the pressure drop across the sample loop. The efficiency of a closed-loop system is assumed to be 100 percent.” AP-42 is a regulatory document available to the Petitioner.

The drawings are part of technology information package supplied per technology service agreements and technology licenses. As such, they are proprietary.

REQUEST NO. 6: Please provide any engineering sketches related to the design of the Facility’s carbon beds.

RESPONSE: The mercury bed catalyst quote is provided at Appendix G of the Application.

REQUEST NO. 7: Please provide a copy of the 1994 Memorandum of Agreement with the EPA, referenced in Response paragraph 62.

RESPONSE: This document is provided at MBFP 2 through MBFP 6.

REQUEST NO. 8: Please provide all calculations and supporting documentation related to the SO₂ Potential to Emit calculations referred to in paragraphs 37 and 40 of the Response.

RESPONSE: Please see responses to Interrogatories 2-6.

REQUEST NO. 9: Please produce all communications between Medicine Bow and WYDEQ regarding the Facility that are not contained in the Administrative Record.

RESPONSE: To date, MBFP has not identified any correspondence that is not contained in the Administrative Record. However, MBFP did not receive the record until August 3 and will supplement this response, as necessary. MBFP is providing copies of email to

and from WDEQ (MBFP 7 through MBFP 145). MBFP's response is limited to communications between MBFP and WDEQ, Air Quality Division, related to the Permit.

Respectfully submitted this 19th day of August 2009.

MEDICINE BOW FUEL & POWER, LLC
Respondent/Permittee

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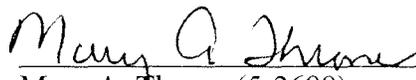
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CERTIFICATE OF SERVICE

I, Mary A. Throne, hereby certify that on this 19th day of August 2009 a true and correct copy of the foregoing **Response to Plaintiff's First Set of Discovery Requests to Medicine Bow** was served in accordance with the requirements of Chapter I, Section 3(b) of the Department of Environmental Quality Rules of Practice and Procedure and Rule 5 of the Wyoming Rules of Civil Procedure, by United States mail to:

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