UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV 24 2009

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

Mr. David Mitchell
Managing Director, Environmental
Duke Energy Corporation
P.O. Box 1006
Charlotte, NC 28201-1006

Dear Mr. Mitchell:

This letter responds to your letter of November 5, 2009 confirming your understanding of the Environmental Protection Agency's (EPA's) position on whether process wastewater to be generated at the proposed Duke Energy Edwardsport Integrated Gasification Combined Cycle (IGCC) facility is exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA), pursuant to 40 C.F.R. 261.4(b0(7)(ii)(G) (exemption for "process wastewater from coal gasification"), commonly referred to as the Bevill exemption. Based on the information provided in your letters (referred to in your November 5 letter) and at our meeting on April 23, 2009, it is our determination that the wastewater to be generated from the proposed Duke Energy Edwardsport IGCC facility does not fall within the scope of that exemption, and therefore would be subject to the RCRA Subtitle C hazardous waste regulation (if characteristically hazardous). The Agency has reached this conclusion for the reasons discussed below.

In determining whether a waste falls within the scope of the regulation excluding process wastewater from coal gasification, codified at 40 CFR 261.4(b)(7)(ii)(G), a number of considerations are relevant.

Specifically, EPA's September 1, 1989 Final Rule (Mining Waste Exclusion: Final Rule, 54 FR 36592) established criteria that mineral processing waste must satisfy to qualify for exemption under the Bevill Amendment (see 54 Fed. Reg. 36593, 36595). Of particular relevance to wastewaters from the proposed Duke Energy facility, the rule required that "residuals from treatment of excluded mineral processing wastes must be historically or presently generated and must meet the high volume and low hazard criteria in order to retain excluded status." 54 Fed. Reg. at 36595. As part of this rule, EPA explained that the Bevill

exemptions were a "one-time" event, and would not extend to new, different waste streams arising in the future, and indicated that "wastes not presently being generated or currently meeting the high volume/low hazard standard will not be considered for special waste status in the future." 54 Fed. Reg. at 36596. EPA reiterated this in addressing wastes from air pollution control devices, stating that "[r]esiduals from treatment of excluded mineral processing wastes must be historically or presently generated * * * to retain excluded status." 54 Fed. Reg. at 36614 (emphasis added). *See, Solite Corp v EPA*, 952 F.2d 473, 480-482 (D.C. Cir 1991) (describing the application of these criteria in EPA's rulemaking process and upholding EPA's one-time rule). Further, EPA has consistently interpreted all Bevill exemptions, including the exemption for "process wastewater from coal gasification" to be limited to those wastes that were studied as part of the Bevill rulemaking process. In this instance, this would include the wastes discussed in the 1990 Report to Congress (RTC), the rule preambles, and the January 1991 Notice of Data Availability. Thus, any waste that fit within the terms of the exemption at 40 CFR 261.4(b)(7)(ii)(G) would necessarily meet the terms of the binding final rule criteria, and would not differ significantly or materially from the wastes EPA studied.

EPA conducted an engineering review of the proposed Duke facility and compared it to the Great Plains Coal Gasification process studied in Chapter 5 of the 1990 RTC to identify similarities and differences in the processes, and to determine whether there were significant or material differences between the wastes. While the Duke Edwardsport project has not yet produced such wastewaters, it appears that the proposed wastewaters from the Duke facility will differ significantly from those that were evaluated in the 1990 Report to Congress (RTC) entitled, "Special Wastes from Mineral Processing." Since this is the case, the rule is clear that these wastewaters are not eligible for the Bevill exclusion.

Chapter 5.3 of the RTC indicates that the process wastewater generated at Great Plains Coal Gasification's process did not exhibit the characteristics of hazardous wastes (corrosivity, reactivity, ignitability, and extraction procedure (EP) toxicity). On the other hand, Duke provided EPA with data on the possible or likely chemical composition of the Edwardsport grey water. The majority of this grey wastewater is generated from gas cooling blowdown. That data indicates that the grey water may be characteristically hazardous for selenium and arsenic. Based on these data, EPA concludes that there is sufficient chemical differences between the exempted process wastewater generated at Great Plains and the wastewater proposed to be generated at the Edwardsport facility. Wastewater from the proposed Edwardsport facility cannot fairly be characterized as the same wastes that EPA studied in its Report to Congress. Therefore, EPA would consider these waste waters at the Duke facility not eligible for the Bevill exclusion.

Duke Energy also has asserted that all of the blowdown from the radiant syngas coolers at the proposed Edwardsport facility is Bevill exempt. However, we would note that the RTC noted in Section 5.2 that a concentrated bleed stream at Great Plains, known as cooling tower blowdown, and the residuals from the treatment of that waste stream are <u>not</u> special wastes. Since EPA has clearly indicated in the RTC that gasification blowdown is not a special waste, the blowdown from the proposed Edwardsport facility is therefore not a special waste.

Based on the evaluation of the issues noted above, the Office of Resource Conservation and Recovery (ORCR) concludes that process wastewater from the proposed Duke Edwardsport IGCC facility is not a Bevill exempt waste.

Should you have any further questions regarding this opinion, please contact Robert Dellinger, Director, Materials Recovery and Waste Management Division at 703-308-8252.

Sincerely,

Matt Hale, Director
Office of Resource Conservation and Recovery

Cc: Julie L. Ezell, Duke Energy

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November 5, 2009

Mr. Matt Hale, Director
Office of Resource Conservation and Recovery
Environmental Protection Agency
Ariel Rios Building
Mail Code: 5301P
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Re: Duke Energy Applications for
UIC Class I Nonhazardous Injection Wells

Dear Mr. Hale:

This letter is to confirm our understanding of the Environmental Protection Agency's (EPA) denial of Duke Energy's request for the application of the RCRA Subtitle C-exempt Bevill waste exemption to the Edwardsport Integrated Gasification Combined Cycle (IGCC) facility in Indiana. This exemption denial was communicated verbally to Duke Energy's consultant, Pat Quinn of The Accord Group, based on a discussion with the EPA on July 2, 2009.

This exemption, Duke Energy believes, would have appropriately supported the EPA's approval of UIC Class I Nonhazardous Injection Well permits for the facility's injection of process wastewater. We appreciate the EPA's consideration of our request although we are disappointed in the outcome. While options other than the Bevill waste exemption were raised by the EPA and discussed with Duke Energy, ultimately the additional (and uncertain) permitting outcome and time, and construction schedule to support needed new electric power generation in Indiana did not allow pursuit of those options.

Duke Energy appreciates the opportunities to mutually consider the merits of the request:

- Our meeting on April 23, 2009, and the follow-up correspondence from Duke Energy dated May 6, 2009.
- Duke Energy's February 2009 response to the EPA's request to match wastewater characteristics for the Great Plains Coal Gasification Plant.
- The January 2009 teleconference with EPA Region 5 and Headquarters on the exemption request.

- Duke Energy's August 2008 request for a Bevill exemption based on revised estimates of wastewater quality characteristics which indicated that the future wastewater stream may exhibit the hazardous characteristics for arsenic and selenium. Duke Energy's October 2008 follow-up information to EPA Region 5 on the Bevill exemption request.

Thank you for your consideration of Duke Energy's request for a Bevill waste exemption to the Edwardsport IGCC facility. Please feel free to contact me at 704-382-6952 or David.Mitchell@duke-energy.com if you have any questions.

Sincerely,

David Mitchell, Managing Director
Environmental

cc: Ms. Rebecca L. Harvey (EPA Region 5)
Ms. Maria Gonzalez (EPA Region 5)
Mr. Patrick Quinn (The Accord Group)