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BEVILL AMENDMENT APPLIED TO COAL GASIFICATION FACILITY

SEP 15, 1987

MEMORANDUM

SUBJECT: Applicability of Bevill Amendment to the  
American Natural Gas Coal Gasification Facility

FROM: Marcia E. Williams, Director  
Office of Solid Waste

Christina Kaneen  
Assistant General Counsel for RCRA

TO: Robert L. Duprey, Director  
Region VIII, Waste Management Division

We have reviewed your memorandum of May 1, 1987, your undated memorandum received June 17, 1987, and the Planning Research Consultants (PRC) report, regarding the applicability of the RCRA mining waste and the combustion ash waste ("utility waste") exclusions (which are both part of the "Bevill Amendment") to the American Natural Gas (ANG) coal gasification facility. We have also reviewed ANG's May 13, 1987, letter on this subject and our staff met with Larry Wapensky of your staff.

Regarding the applicability of the combustion ash waste exclusion (Section 3001(b)(3)(A)(i)) to the ANG operation, ANG's operations include controlled oxygen-starved combustion of coal. Coal ash produced in the gasifiers from this combustion is equivalent to coal ash (from the same coal type) produced in utility operations. In Gary Dietrich's letter to Paul Emler, dated January 13, 1981, he stated that combustion wastes were excluded from Subtitle C regulation by the Bevill Amendment providing fossil fuel constituted at least 50 percent of the fuel mix. Assuming that coal constitutes at least 50% of ANG's fuel mix, the combustion ash waste exclusion would apply to the ash from the ANG operation.

Regarding the applicability of the mining waste exclusion to ANG's operations, we agree with you that the exclusion for "solid waste from the extraction, beneficiation, and processing

of ores or minerals" (the "mining waste exclusion") in RCRA Section 3001(b)(3)(A)(ii), applies to the coal gasification process. This is consistent with the position taken in the January 21, 1981, memorandum from Alfred Lindsey to Terry Thoem in which Mr. Lindsey stated that the mining waste exclusion clearly extends to retorting of shale and "to direct gasification and liquefaction of coal or the wastes produced by those operations."

Analyzing ANG's wastes under the mining waste exclusion, we agree with your conclusion that wastes from the following units are generated from the primary beneficiation or processing of a mineral (i.e., coal), and are, therefore, excluded from regulation under RCRA Subtitle C by the mining waste exclusion:

- The Gasification Units
- The Raw Gas Cooling and Shift Conversion Units
- The Rectisol Unit
- The Methanation Unit

However, we disagree with your analysis of the regulatory status of wastes resulting from operations that are not in the direct line of producing synthetic natural gas. We believe that the ANG operations that treat the gas liquor, the waste gases, and the cooling tower blowdown are also exempt from Subtitle C. We note that EPA has previously recognized that residues are excluded from regulation if they derive from treatment of wastes generated from mining waste. For instance, EPA suspended the listings of several such wastes when Congress enacted the mining waste exclusion. See 46 FR 4614 (January 16, 1981) and 46 FR 27473 (May 20, 1981). See also the attached letter from James Scarbrough, EPA Region IV, to John Stubbs.

We do not believe the wastes from these units become subject to RCRA Subtitle C if the treatment yields a useful by-product. Certain units at ANG's plant produce, from the liquid waste streams, materials which are to varying extents reused in the plant or sold. These include sulfur, tar oils, phenol and ammonia. In his May 16, 1985, memorandum to Harry Seraydarian, John Skinner stated that leachate generated from slag and clinker wastes was exempt under the mining waste exclusion because the leachate was derived from an exempt waste. He stated further that "the situation would be different if the slag or clinker were used as a raw material for some extractive process and a

listed or hazardous waste resulted. Under this scenario, the hazardous waste would fall outside the mining waste exclusion." We feel that this position is contrary to waste reduction goals. It is not environmentally beneficial to create a situation in which treating a waste for recovery of useful materials is subject to Subtitle C regulations whereas disposal of the untreated wastes

would be exempt from RCRA. We believe that wastes from the following units are exempt from Subtitle C because these operations constitute treatment of mining wastes:

- The Stretford Unit
- The Gas Liquor Separation Unit
- The Phenosolvan Unit
- The Phosam W Unit

Similarly, we believe the cooling tower blowdown and related wastes are also exempt as wastes from ore processing. The January 21, 1981, memorandum from Alfred W. Lindsey regarding the RCRA status of wastes from synfuels processes, including coal gasification, states that the mining waste exclusion "extends to wastes produced from the process...provided they are unique to the 'ore' processing operation. [However the] ... exemption does not extend to wastes... which are not unique to synfuels operations like spent cleaning solvents, cooling tower blowdown, and ion exchange regeneration wastes."

We believe Mr. Lindsey's statement regarding cooling tower blowdown is best interpreted as only applying to blowdown from industrial cooling apparatus which is incidental to making synfuels. The composition of the blowdown from such cooling towers is not dictated by (i.e., is not "uniquely associated with") the extraction, beneficiation, and processing of ores and minerals. ANG's cooling tower receives the liquid treated waste stream from a mining process. The blowdown procedure is used to remove from the cooling tower contaminants contributed by this liquid waste stream. In the cause of the ANG operation, the ANG cooling tower blowdown is a pollution control residue which is derived from waste produced in the coal gasification process (and is thus "uniquely associated" with the coal gasification process). As such, it is excluded from regulation.

This is consistent with our position on other large volume wastes. For example, cooling tower blowdown from fossil-fuel

fired electric utility cooling towers is currently exempt and is under study in a forthcoming Report to Congress. thus, the ANG units listed below treat an excluded waste, i.e., cooling tower blowdown, so the wastes from these units are also excluded from regulation:

The Cooling Tower Unit  
The Multiple Effect Evaporator Unit  
The Liquid Waste Incineration Unit  
The Gasifier Ash Handling System

From this analysis, we conclude that two of the ten wastes you list on page 2 of your May 1, 1987, memorandum attachment as "potentially regulated" are not excluded from potential regulation under RCRA Subtitle C:

1. Wastes from cleaning operations, vehicle maintenance operations, container storage areas and laboratory areas, and wastes from the oily water separation system.
2. Spent methanol catalyst from the methanol plant.

Regarding the flue gas and ash wastes from the steam generation system, insufficient data are available from the RRC report to determine the status of these wastes.

Finally, you requested our view on the reinjection of the Multiple Effect Evaporator liquid waste concentrate into the pasifiers. Since the vast majority of the input to the gasifier is an ore or mineral (i.e., coal), the waste from this unit would remain excluded from regulation even if the MEE waste gas were not exempt from Subtitle C. This is consistent with our position in previous correspondence regarding the status of ore processing with mixed feedstocks (e.g., memorandum from Marcia Williams to david Wagoner, dated June 10, 1986; memorandum from John Lehman to Phil Bobel, dated April 4, 1984; and letter from John Lehman to D.M. Friedman, dated August 22, 1983 (all attached)).

In conclusion, we recognize the ANG facility is essentially a Bevill operation producing Bevill wastes which are currently excluded from RCRA Subtitle C regulations. The two exceptions listed above are still potentially subject to Subtitle C regulation.

We do want to stress that the exemption from Subtitle C may be temporary. The exemption of any wastes from processing an ore or mineral can be lifted by EPA after providing a Report to Congress that addresses the factors identified under Section 8002(f) of RCRA. Further, we have serious reservations as to whether the operations at the ANG facility would remain exempt, were the facility to be reconfigured to conduct significant organic chemical synthesis with the synthetic natural gas or the gas liquor as a feedstock.

While we hope the above discussion clarifies our review of the legal status of the various units at the facility, we recognize that exempt wastes can be of environmental concern. There are other authorities under RCRA for obtaining information and for taking corrective actions as appropriate. We encourage you to use these authorities to investigate and address health or environmental impacts.

If you have any questions, please contact: Ben Haynes (FTS/475-7242) of OSW or Meg Silver (FTS/382-7706) of OGC.

#### Attachments

cc: Regional Administrator, Regions I-X

J. Winston Porter

Jack McGraw

Ben Haynes

Meg Silver