

TO: Internet Address: [rcra-docket@U.S. EPA.gov](mailto:rcra-docket@U.S.EPA.gov)

RE: RCRA Docket #: F-2002-RPRP-FFFFF

**Regulation of Hazardous Oil-bearing Secondary Materials
From the Petroleum Refining Industry and Other Hazardous
Secondary Materials Processed in a Gasification System to
Produce Synthesis Gas**

DATE: September 10, 2002

RCRA DOCKET:

Please find enclosed the Ohio Environmental Protection Agency's comments on U.S. EPA's proposal to modify the hazardous waste rules to exclude hazardous oil-bearing secondary materials from the petroleum refining industry and other hazardous wastes from the definition of solid waste when they are processed by gasification to produce synthesis gas. This proposal was issued March 25, 2002, in the *Federal Register* (Vol. 67, No. 57, pg. 13684).

Ohio EPA requests that these comments be made an official part of the record. If you have any questions or need additional clarification regarding the enclosed comments, please do not hesitate to contact Karen Hale, Division of Hazardous Waste Management, at (614) 644-2917 or karen.hale@epa.state.oh.us

Sincerely,

Christopher Jones
Director

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cc: Michael A. Savage, Chief, DHWM
Dave Sholtis, Assistant Chief, DHWM
Karen Hale, RIS, DHWM
Ed Tormey, Legal
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Section (VII): Detailed Discussion of Conditional Exclusion for Oil-bearing Secondary Materials Produced by Petroleum Refineries

General Comment: An unfortunate result of RCRA is that it has frozen in time the scope and processes that define an industry. Also, it has forever labeled the secondary materials from these industries as useless and valueless. Industries cannot evolve and incorporate technologies that further process raw materials to yield more of a wanted product or yield a new product without having to consider the impacts and constraints of RCRA. RCRA has not been implemented to recognize the evolution and expansion of industry.

We believe that oil-bearing materials derived from the petroleum refining industry that are further processed to produce synthesis gas fuel by gasification are not discarded and should not be subject to regulation under the hazardous waste program. This activity should be viewed as an industrial process that is an evolution and continuation of the petroleum refining industry resulting in the manufacture of another fuel type or product from crude oil.

Furthermore, we do not believe the petroleum oil-bearing secondary materials should be viewed as hazardous wastes being burned for energy recovery and subject to RCRA oversight. This is because these oil-bearing materials are a derivative of crude oil and the purpose of processing crude oil is to gain different forms of fuels as well as other chemicals. Therefore, the processing of the oil-bearing secondary materials is well within the scope of the intended purpose of processing crude oil and the purpose of the petroleum industry. The oil-bearing materials should be considered industrial intermediates when destined for further processing by gasification and not as wastes sent for recycling.

U.S. EPA presented many factors in the preamble discussion that demonstrate how the gasification of hazardous oil-bearing secondary materials to produce synthesis gas fuel and other products is indeed a manufacturing process and not a waste treatment process.

First, the petroleum industry is in the business of producing fuels. The business is built on using numerous processes that separate, reclaim and sequentially process materials to gain its products. Neither the institution of another technology to further process materials to gain another fuel product nor the production of a fuel product is outside the makeup of this industry. Second, the inputs into a gasification system are monitored to meet material specifications. Third, gasification systems closely control feed materials, temperature, and pressure. Fourth, the production of synthesis gas fuel is monitored and controlled to ensure the product meets the product specifications appropriate for its use either as a fuel or manufacturing feedstock. And, fifth, there are known and real uses for the fuel and byproducts of the process. Fifteen such uses were stated in the preamble discussion.

We encourage U.S. EPA to abandon the conditional exclusion pertaining to hazardous oil-bearing secondary materials produced in the petroleum refining industry and view the gasification process as a continuation of the petroleum refining industry. Oil-bearing materials destined for processing by gasification should be considered process intermediates. This proposal is an opportunity for you to institute a new way of viewing an industry and acknowledge its evolution.

Section (VIII): Other Hazardous Secondary Materials That Could Also be Conditionally Excluded When Processed in a Gasification System

- 1. Request for Comment: Should U.S. EPA expand the exclusion to allow for other hazardous secondary materials to be conditionally excluded from the definition of solid waste if they are processed in a gasification system?**

Ohio EPA supports the development of a conditional exclusion that will allow the use of hazardous secondary materials to produce synthesis gas fuel and non-fuel products. We believe this is a worthwhile effort that U.S. EPA needs to pursue.

The environmental benefits of gasifying hazardous secondary materials are significant and include the production of a clean burning fuel, a product that can be used as feedstock to produce chemical products, residuals from which chemical and metals values can be gained, and the volume of wastes disposed of is greatly reduced, which saves landfill space. All of these aspects result in the conservation of materials, natural resources and the environment.

For the most part, the six conditions presented in the preamble for the expanded exclusion are appropriate and will help ensure that only hazardous secondary materials that effectively contribute to the production of synthesis gas fuel will be gasified. However, we do offer suggestions for adding components to the exclusion in the areas of notification requirements and a variance process from the 20% total organic carbon (TOC) material specifications condition. These additional components are presented below.

- 2. Request for comment: Should the Agency develop a set of general criteria for the types of hazardous secondary materials appropriate for gasification which the States could then use to develop procedures (e.g., rulemaking or a state specific variance procedure) for identifying specific waste streams that are excluded?**

Ohio EPA does not support the use of a set of general criteria and State specific identification as the mechanism of identifying excluded materials. We believe this type of approach will make the implementation of the exclusion overly burdensome and costly for both the overseeing agency and the regulated community.

A state would need to dedicate significant time and resources in order to develop its own regulatory exclusion through legislation and/or rulemaking. Furthermore, such an approach would promote an inconsistent regulatory framework across the states as to what hazardous secondary materials are appropriate for gasification and eligible for exclusion. This result would be burdensome for a company who is established in a number of states, wishes to exclude hazardous secondary materials and needs to understand and comply with significantly different state programs. All of these results of a set of general criteria and state-specific identification mechanism can discourage the use of the exclusion by States and the regulated community and render the exclusion ineffective.

Therefore, in order to promote a minimum level of national consistency regarding the regulation of hazardous secondary materials processed by gasification, we favor that U.S. EPA develop and finalize a conditional exclusion for hazardous secondary materials processed by gasification.

However, to allow for some regulatory flexibility regarding the hazardous secondary materials that can be processed by gasification, we suggest that a variance procedure be a component of the exclusion. The materials specification condition of the proposed exclusion would dictate that only those hazardous secondary materials containing 20% or more TOC can be gasified. And, as a general rule, this condition seems to be appropriate. However, there may be specific situations where materials containing less than 20% TOC can be shown by the generator to be appropriate for gasification. A variance procedure would provide the overseeing agency the flexibility to evaluate such situations and establish case-specific conditions for hazardous secondary materials that do not meet the specified TOC content but are otherwise appropriate inputs for a gasification system.

- 3. Request for Comment: Should the Agency require specific design and operating conditions for all components of the gasification system including the cleanup, polishing and secondary product recovery systems?**

Setting design and operating conditions may adversely impact the versatility of this

process and unnecessarily prohibit the processing of certain hazardous secondary materials. There are already several factors inherent in the expanded exclusion that will ensure that gasification systems are designed and operated appropriately. Therefore, we do not believe it is necessary to specify additional design and operating conditions for gasification systems beyond what is given in the proposed definition of gasification unit.

The exclusion requires the synthesis gas product to meet the constituent limits given in the comparable fuel/syngas rule (i.e., 40 CFR § 261.38). These limitations on the contaminants allowable in the synthesis gas fuel will, in part, drive the design and operating conditions of the gasification unit.

Also, as explained in the preamble discussion, a gasification system can be used to produce a number of products. Different system designs and operating parameters will likely be necessary to produce these products from various input materials. So, it would be difficult to specify universal system design and operating conditions that would apply to all combinations of material processing and product production scenarios.

Lastly, the emissions of gasification systems and the industrial processes used to burn the synthesis gas fuel are subject to oversight and regulation under the air pollution program. The emissions limits imposed under a facility's air permit will impact the makeup of the materials (both hazardous and nonhazardous) processed in a gasification unit.

4. **Request for Comment: What is the market for building and operating gasification systems in the future, including future capacity for gasification.**

Currently, no gasification systems are in use in Ohio. However, Ohio EPA recently issued an air permit for a gasification system that will co-process refuse-derived fuel (RDF) produced from municipal solid waste and coal. The synthesis gas fuel will be used to power a combined turbine/steam system to produce electricity. The feedstock ratio is roughly two parts RDF to one part coal. The system will have a capacity to process roughly 50 railcars of material daily generating 580 megawatts of electricity. Five hundred and thirty megawatts will be sold.

Also, another Ohio company is considering the installation of a gasification system for the production of electricity. However, this venture is only in the developmental stages.

5. Request for Comment: Should recordkeeping and notification requirements be conditions of the exclusion?

We do not believe that specific recordkeeping requirements are necessary for this exclusion beyond those provided in rule 40 CFR § 261.2 (f). However, we do suggest that the conditional exclusion specifically reference rule 40 CFR § 261.2 (f) as well as the rule regarding speculative accumulation, 40 CFR § 261.1 (b)(8). Referencing these rules will ensure the person implementing the exclusion is fully aware of conditions of the exclusion and his responsibilities.

6. Request for Comment: Should the exclusion apply if a broker is involved?

The exclusion should still be applicable when brokers are involved. However, companies involved in the brokering of excluded hazardous secondary materials should be subject to two additional documentation related requirements. These would be in addition to the documentation and recordkeeping responsibilities contained in 40 CFR § 261.2 (f) and 40 CFR § 261.1 (b)(8).

First, the owner/operator of the brokerage company should keep a record of the excluded materials he manages. The record needs to include the name and address of the generator of the excluded material, a description of the excluded material (including TOC content) and the name of the facility to which the broker sends the excluded material. This is so the overseeing agency can verify the applicability of the exclusion to the materials by contacting the generator, if necessary, since the exclusion applies at the point of hazardous waste generation or after bonafide treatment. Second, brokers of excluded material need to notify the overseeing agency of their existence. The notification should include the name of the business owner/operator, the name of the facility, the location of the facility, a description of services offered and whether excluded materials are consolidated and/or stored at the facility. This is so the overseeing agency knows who is consolidating excluded materials and monitor their compliance with the exclusion.