



STATE OF WEST VIRGINIA  
DEPARTMENT OF NATURAL RESOURCES  
CHARLESTON 25305

September 19, 1986

ARCH A. MOORE, JR.  
Governor

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SECRETARY OF STATE

RONALD R. POTESTA  
Director  
MICHAEL A. FOTOS  
Deputy Director


NOTICE OF PUBLIC HEARING  
OR COMMENT PERIOD ON A PROPOSED RULE  
PUBLIC HEARING

AGENCY: West Virginia Department of Natural Resources  
RULE TYPE: Legislative  
RULE TITLE: Hazardous Waste Management Regulations

A PUBLIC HEARING ON THE ABOVE PROPOSED RULE WILL BE HELD AT  
7:00 p.m. on Monday, October 27, 1986 at Room 674,  
1800 Washington Street, East, Charleston, WV 25305

COMMENTS ARE LIMITED TO: ORAL  WRITTEN  BOTH   
COMMENTS MAY ALSO BE MAILED TO: Mr. Ronald A. Shipley,  
West Virginia Department of Natural Resources, Room 842,  
1800 Washington Street East, Charleston, WV 25305.

THE DEPARTMENT REQUESTS THAT PERSONS WISHING TO MAKE COMMENTS  
AT THE HEARING MAKE AN EFFORT TO SUBMIT WRITTEN COMMENTS IN  
ORDER TO FACILITATE A REVIEW OF THESE COMMENTS. THE ISSUES TO  
BE HEARD SHALL BE LIMITED TO THE PROPOSED RULE.

  
\_\_\_\_\_  
Ronald R. Potesta  
Director



STATE OF WEST VIRGINIA  
DEPARTMENT OF NATURAL RESOURCES  
CHARLESTON 25305

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NOTICE OF PUBLIC HEARING  
OR COMMENT PERIOD ON A PROPOSED RULE  
COMMENT PERIOD

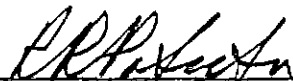
AGENCY: West Virginia Department of Natural Resources  
RULE TYPE: Legislative  
RULE TITLE: Hazardous Waste Management Regulations

A COMMENT PERIOD ON THE ABOVE PROPOSED RULE HAS BEEN SCHEDULED  
AND WILL END ON Friday, October 31, 1986 at 5:00 p.m.

WRITTEN COMMENTS ARE TO BE MAILED TO THE FOLLOWING ADDRESS:

West Virginia Department of Natural Resources, Room 842  
1800 Washington Street East, Charleston, WV 25305  
Attention: Mr. Ronald A. Shipley

THE ISSUES TO BE HEARD SHALL BE LIMITED TO THE PROPOSED RULE.

  
\_\_\_\_\_  
Ronald R. Potesta  
Director



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MICHAEL A. FOTOS  
Deputy Director

The Honorable Ken Hechler  
Secretary of State  
Capitol Complex, Suite 157-K  
Charleston, West Virginia 25305

Re: Filing of Proposed Rules (Hazardous  
Waste Management Regulations, Series  
15); Notice of Public Hearing, and  
Notice of Comment Period by the  
Department of Natural Resources

Dear Mr. Hechler:

Enclosed please find for your filing a copy of proposed amendments to the legislative rules of the Department of Natural Resources, a Notice of Public Hearing, and a Notice of Comment Period for the proposed rule.

If you have any questions, please contact Mr. Ronald A. Shipley, Special Assistant to the Director and State Hazardous Waste Coordinator, at 348-2761.

Sincerely,

Ronald R. Potesta  
Director

RRP/jhb

Enclosures

cc: Legislative Rulemaking Review Committee  
All State Hazardous Waste Agencies

FILED

FISCAL NOTE FOR PROPOSED RULES

SEP 19 AM 11:29

OFFICE OF THE COMPTROLLER  
SECRETARY OF STATE

Rule Title: Hazardous Waste Management Regulations

Type of Rule:  Legislative  Interpretive  Procedural

Agency: Department of Natural Resources

Address: 1800 Washington Street East, Charleston, West Virginia 25305

1. Effect of Proposed Rule (Estimated Total Cost)	Increase \$	ANNUAL		FISCAL YEAR	
		Decrease \$	Current \$	Next \$	Thereafter \$
Personal Services					
Current Expense					
Repairs and Alterations			Little or No Impact		
Equipment					
Other					

2. Explanation of Above Estimates:

The proposed rule will result in a minor increase in Department paperwork.

3. Objectives of These Rules:

The proposed rules will substantially lower the costs incurred by the chemical industry in the handling of waste mixtures while ensuring the protection of human health and the environment.

4. Explanation of Overall Economic Impact of Proposed Rule.

A. Economic Impact on State Government:

The proposed rules should have little or no economic impact upon state government.

B. Economic Impact on Political Subdivisions; Specific Industries; Specific Groups of Citizens:


Under current legislative rules, the chemical industry in West Virginia expects to incur costs of \$56 million in new capital expenditures and in excess of \$2.5 million per year in operating costs in order to comply with federal regulations set to become effective on November 8, 1986. The proposed rule will provide

substantial cost savings to the industry in two regards. Under the proposed rule, the industry would incur new capital expenditures of approximately \$15,000 for each hazardous waste treatment facility impacted by the rules (less than 10 facilities at present). The annual operating cost of each of these facilities would be approximately \$16,000. Thus, the proposed rule is anticipated to provide a savings of \$55.75 million in initial capital expenditures and at least \$2.3 million annually thereafter.

C. Economic Impact on Citizens/Public at Large:

The proposed rule will result in a substantial costs savings to the chemical industry in West Virginia, which could ultimately result in a reduction in the costs of consumer goods.

Date: September 19, 1986

  
\_\_\_\_\_  
Director

West Virginia Administrative Regulations  
Department of Natural Resources  
Chapter 20-15, Series 15  
Hazardous Waste Management Regulations  
Proposed Rule

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DEPARTMENT OF NATURAL RESOURCES  
SECRETARY OF STATE

3.1.2 Definition of Hazardous Waste

3.1.2.a A waste as defined in Section 3.1.1 is a hazardous waste if:

3.1.2.a.1 It is not excluded from regulation as a hazardous waste under Section 3.1.3(b); and

3.1.2.a.2 It meets any of the following criteria:

3.1.2.a.2.i It is listed in Section 3.4 and has not been excluded from the list in Section 3.4 pursuant to Section 16.

3.1.2.a.2.ii ~~It is a mixture of waste and one or more hazardous wastes listed in Section 3.4 and has not been excluded under Section 16.~~ It is a mixture of a waste and a hazardous waste that is listed in Section 3.4 solely because it exhibits one or more of the characteristics of hazardous waste identified in Section 3.3, unless the resultant mixture no longer exhibits any characteristic of hazardous waste identified in Section 3.3.

3.1.2.a.2.iii It is a mixture of a waste and one or more hazardous wastes listed in Section 3.4 and has not been excluded from this paragraph under Section 16 of these regulations; however, the following mixtures of solid wastes and hazardous wastes listed in Section 3.4 are not hazardous wastes (except by application of Sections 3.1.2.a.2.iv or 3.1.2.a.2.i) if the generator complies with the requirements contained in Section 3.1.2.a.3:

3.1.2.a.2.iii.A It is one or more of the following spent solvents listed in Section 3.4.2 - carbon tetrachloride, tetrachloroethylene, and trichloroethylene - provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 1 part per million; or

3.1.2.a.2.iii.B It is one or more of the following spent solvents listed in Section 3.4.2 - methylene chloride, 1, 1, 1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, and spent chlorofluorocarbon solvents -

provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 25 parts per million; or

3.1.2.a.2.iii.C It is the following waste listed in Section 3.4.3 - heat exchanger bundle cleaning sludge from the petroleum refining industry (EPA Hazardous Waste No. K050); or

3.1.2.a.2.iii.D It is a discarded commercial chemical product, or chemical intermediate listed in Section 3.4.4, arising from "de minimis" losses of these materials from manufacturing operations produced in the manufacturing process. For purposes of this subsection, "de minimis" losses include those from normal material handling operations (e.g. spills from the unloading or transfer of materials from bins or other containers, or leaks from pipes, valves, or other devices used to transfer materials); minor leaks from process equipment, storage tanks, or containers; leaks from well-maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers or the rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing; or

3.1.2.a.2.iii.E It is a wastewater resulting from laboratory operations containing toxic (T) wastes listed in Section 3.4, provided the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pretreatment system, or provided the wastes' combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pretreatment facility. Toxic (T) wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation.

3.1.2.a.2.iii.iv It exhibits any of the characteristics of hazardous waste identified in Section 3.3.

3.1.2.a.3 In order for a mixture of a waste and one or more hazardous wastes identified in Section 3.1.2.a.2.iii to be exempt from the definition of hazardous waste, the owner or operator must comply with the following:

3.1.2.a.3.i Before claiming an exemption, demonstrate in writing to the Chief that the weekly ratio of the usage of solvents to the flow of wastewater in the headworks of wastewater treatment does not exceed the values listed in 3.1.2.a.2.iii A or B; or the annualized ratio of average flow of laboratory wastes of the total

flow of wastewater in the headworks of wastewater treatment or the combined annualized concentration in the headworks of wastewater treatment does not exceed the values listed in Section 3.1.2.a.2.iii.E. He must also report annually to the Chief the ratios or values described in this paragraph for the previous year.

3.1.2.a.3.ii Annually submit to the Chief a list of hazardous wastes that are expected to be present in the mixture to be exempted.

3.1.2.a.3.iii Before claiming an exemption, demonstrate in writing to the Chief that the mixture consists of wastewater which is treated in a wastewater treatment facility, the discharge of which is subject to regulation under W. Va. Code §20-5A-1 (including wastewater at facilities which have eliminated the discharge of wastewater).

3.1.2.a.3.iv Provide a certification in writing to the Chief that groundwater monitoring complying with either 40 C.F.R. Part 265, Subpart F, or which is approved by the Chief, is or will be in place at the wastewater treatment facility identified in Section 3.1.2.a.3.iii. A time schedule for the installation of such groundwater monitoring must be included. (Note: This requirement does not apply to wastewater treatment units or containers.)

3.1.2.a.4 The owner or operator of each wastewater treatment facility receiving mixtures of wastes under Section 3.1.2.a.2 shall notify the Chief of the receipt of such wastes on a form prescribed by the Chief.

3.1.2.b A waste which is not excluded from regulation under paragraph (a)(1) of this section becomes a hazardous waste when any of the following events occur:

3.1.2.b.1 In the case of a waste listed in Section 3.4 when the waste first meets the listing description set forth in Section 3.4;

3.1.2.b.2 In the case of a mixture of a waste and one or more listed hazardous wastes, when a hazardous waste listed in Section 3.4 is first added to the waste;

3.1.2.b.3 In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in Section 3.3.

3.1.2.c Unless and until it meets the criteria of paragraph (d):

3.1.2.c.1 A hazardous waste will remain a hazardous waste.

3.1.2.c.2.i Except as otherwise provided in paragraph 3.1.2.c.2.ii

of this section, any waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emissions control dust, or leachate (but not including precipitation run-off) is a hazardous waste. (However, materials that are reclaimed from waste that are used beneficially are not wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.)

3.1.2.c.2.ii The following wastes are not hazardous wastes even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste: (A) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC Codes 331 and 332); (B) Wastes from burning any of the materials exempted from regulation by Section 3.1.5.a.3.

3.1.2.d Any waste described in paragraph (c) is not a hazardous waste if it meets the following criteria:

3.1.2.d.1 In the case of any waste, it does not exhibit any of the characteristics identified in Section 3.3.

3.1.2.d.2 In the case of a waste which is a listed waste under Section 3.4, contains a waste listed under Section 3.4 or is derived from a waste listed in Section 3.4, it also has been excluded from paragraph (c) under Section 16.

PREAMBLE TO HAZARDOUS WASTE MANAGEMENT REGULATIONS  
EMERGENCY AND PROPOSED "MIXTURE" RULES

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STATE OF WEST VIRGINIA  
SECRETARY OF STATE

Program: Hazardous Waste Management

Regulations: Hazardous Waste Management Regulations, Series 15

Authority: West Virginia Code, Chapter 20, Article 5E, Section 6

Action: Promulgation of emergency rule, notice of proposed rule, and request for comments

Summary: On November 17, 1981 the United States Environmental Protection Agency (EPA) promulgated an "interim final rule" exempting certain mixtures of wastes and hazardous wastes from the "presumption of hazardousness" concept contained in EPA regulations originally promulgated on May 19, 1980. The Department of Natural Resources (DNR) has not adopted these exemptions as State regulations. On June 11, 1986 DNR filed an Advanced Notice of Proposed Rulemaking (ANPR) with the West Virginia Secretary of State announcing the Department's intention for rulemaking on the issue of the "mixture rule." In the ANPR, the Department outlined the history of the mixture rule, the Department's position concerning the EPA rule, the regulated community's concern with the State's current rule, the regulated community's rationale for State adoption of the EPA rule, and various options for proposed rulemaking on this issue. Comments and data were invited from the public and the regulated community on the various issues raised in the ANPR.

DNR received comments from the regulated community and the public. Having considered these comments, the agency is today concurrently promulgating an emergency rule and proposing the same rule as an amendment to current legislative rules. Adoption of the proposed rule will render the State's Hazardous Waste Management Regulations to be substantially similar to the EPA interim final rule.

Dates: The emergency rule becomes effective on September 22, 1986. A public hearing on the proposed rule will be held on October 27, 1986 at 7:00 p.m. in the Director's Conference Room 674, 1800 Washington Street East, Charleston, West Virginia. Comments on the proposed rule will be received until the close of business on October 31, 1986.

Contact: For further information contact Mr. Ron Shipley, Special Assistant to the Director, Director's Office of Regulatory Affairs, Room 842, 1800 Washington Street East, Charleston, West Virginia 25305, phone (304) 348-2761.

Supplemental Information:

A. Background

The current EPA "mixture rule" was promulgated on November 17, 1981 as an "interim final rule." EPA accepted comments on this rule and has not yet promulgated a "final" rule. EPA's interim final rulemaking amended the previous federal mixture rule which stated that a waste mixture resulting from a mixture of a waste and one or more listed hazardous wastes was hazardous. Thus, under the previous rule all mixtures containing a hazardous waste were presumed to be hazardous, regardless of the concentration, quantity, source or treatment which such a waste mixture received.

In promulgating the November 17, 1981 mixture rule, EPA "recognized that a rule designating all waste mixtures containing listed hazardous wastes as hazardous could create some unintended results." However, EPA also noted the validity and need for their original mixture rule in certain cases:

"This is not to say that the mixture presumption does not have validity in many settings involving mixtures of listed wastes and wastewater. . . . Furthermore, many wastewater treatment facilities contain unlined surface impoundments which are of special environmental concern when they are used to treat, store, or dispose of hazardous waste. Many pollutants are water soluble, and impounded wastes are constantly exposed to water under conditions where a hydraulic head can develop. Hazardous constituents are especially available for leaching to the environment under these conditions."

In the November 17, 1981 mixture rule, EPA amended its regulations so that: (1) certain mixtures of wastes containing "listed" hazardous wastes are exempted if the mixture is a wastewater and its discharge is subject to Section 402 or Section 307(b) of the Clean Water Act; and (2) mixtures of wastes containing hazardous waste that are listed solely because they exhibited a hazardous waste characteristic are exempted once the mixture no longer exhibits any hazardous characteristics.

EPA decided that these exempted discharges of wastes "do not pose a substantial threat to human health or environment" because they are in very low concentrations and are treated in wastewater treatment plants with approved NPDES permits.

The Department of Natural Resources does not have a "mixture rule" containing exemptions similar to current EPA provisions contained in 40 C.F.R. 261.3(a)(2)(iii) or (iv). The State's regulations in this regard (Section 3.1.2 of the Hazardous Waste Management Regulations, Series 15) are analogous to the EPA rule that existed before the promulgation of the interim final rule on November 17, 1981. The State's Hazardous Waste Management Regulations (HWMR) define as hazardous all wastes generated from the mixture of a waste and one or more hazardous wastes "listed in Section 3.4 and which has not been excluded in Section 16." HWMR does not contain any of the exemptions contained in the federal regulations explained above.

The reason the Department did not adopt the EPA mixture rule was its belief that the EPA rule posed problems concerning both administrative workability and protection of human health and the environment.

The regulated community has expressed a number of concerns with DNR's position on the mixture rule during meetings with the Department and in other forums. They contended that: (1) the small quantities of hazardous waste in the EPA-exempted mixtures can be treated effectively in wastewater treatment plants and thus do not pose a risk to human health or the environment; (2) current State regulations require segregation of small quantities of hazardous waste, which is expensive and not worth the cost in light of the benefit gained; (3) the delisting procedure, the only method DNR provides for exempting such wastes from regulation, is cumbersome and wasteful of resources; (4) permit modifications necessary in certain situations to authorize the receipt of EPA-exempted mixtures at treatment facilities are time consuming; (5) current State regulations place West Virginia chemical manufacturers at an economic disadvantage compared to manufacturers in neighboring states which have adopted the EPA mixture rule; and (6) some treatment facilities would be required to undergo costly renovations or close due to their handling of a small amount of the mixture rule wastes.

To resolve these issues, the Department filed an Advanced Notice of Proposed Rulemaking on June 11, 1986 in which the Department outlined the history of the mixture rule together with the DNR and industry concerns, suggested alternatives for resolution of the issues, and invited comments and data from industry and the public.

## B. Summary of Comments

Comments were received from the West Virginia Manufacturers' Association, industry representatives, and the West Virginia Chapter of the Sierra Club. The Department also received a recommendation from the Hazardous Waste Advisory Committee. Comments from these groups are summarized below.

### 1. WV Manufacturers' Association

The Association stated that the "industry concerns" outlined in the ANPR are valid. They added further detail for these concerns and raised some new concerns:

- a. The Association estimated that the cost to industry attributable to the current rule regarding "mixtures" will be in excess of \$56 million in capital expenditures and in excess of \$2.5 million per year in operating costs.
- b. The land disposal ban imposed by the federal Hazardous and Solid Waste Amendments of 1984 (HSWA) would require the construction of new wastewater systems to address relatively small quantities of wastes.
- c. The EPA mixture rule is working well, as evidenced by the absence of any significant problems under the federal rule adopted in other states.
- d. The EPA mixture rule is administratively workable. The demonstrations discussed by EPA in the mixture rule are adequate to establish initial and continuing eligibility.

### 2. Industry Representatives:

- a. One company generally endorsed the Manufacturers' Association's comments. This company highlighted the impact which the mixture rule has on the petroleum industry and suggested that the Department could ask for written demonstrations of compliance with the exemption criteria.
- b. Another company pointed out that, in the absence of exemptions at the state level, the company may have to close down part of its facility, resulting in the loss of 150-200 jobs.

### 3. WV Chapter of Sierra Club

The Sierra Club recommended adoption of the EPA mixture rule with certain modifications:

- a. Exemption for mixtures of listed characteristic wastes and heat exchange sludge mixtures as contained in EPA mixture rule.
- b. Spent solvents mixtures and lab waste mixtures must be subject to specific effluent limits for the various wastes in the NPDES permit.
- c. "De minimis" losses should not include the rinsate from containers that are rendered empty by rinsing.
- d. Adequate groundwater monitoring must apply to all facilities handling exempted waste mixtures.

### 4. Hazardous Waste Advisory Committee

In addition to the aforementioned formally received comments, the Hazardous Waste Advisory Committee adopted a motion to support "a mixture rule exemption for the State that would closely parallel the Federal mixture rule but would require a demonstration on the part of NPDES facilities that they can handle RCRA waste and address groundwater monitoring." This resolution was sent to the Director in a letter dated July 25, 1986.

### C. DNR Action

DNR is today concurrently promulgating an emergency rule and proposing a "mixture rule" substantially similar to EPA's current rule with two modifications: (1) today's rule requires that the demonstration of mixture rule exemption eligibility required by the EPA rule must be in writing to the Chief before any exemption for mixtures may be claimed and (2) a certification is required in writing from the Chief that groundwater monitoring complying with either the requirements of 40 C.F.R. Part 265, Subpart F or other groundwater monitoring satisfactory to the Chief is or will be in place. The facility owner or operator must submit a compliance schedule for such groundwater monitoring. DNR's rule, however, will not require groundwater monitoring around wastewater treatment facilities which are either containers or wastewater treatment units as that phrase is defined in HWMR (i.e. tanks). Both containers and tanks are devices for which groundwater monitoring should not be required due to their impermeable structure.

The emergency rule and the proposed rule will protect the environment and human health. One of the major concerns of the Department was ensuring protection of groundwater. By requiring the owner or operator to comply with groundwater monitoring requirements, any groundwater pollution can be determined and corrective action begun. Data obtained from groundwater monitoring can be used in several ways: (1) corrective action for 'releases' from hazardous waste facilities, (2) corrective action for solid waste management units pursuant to HSWA, and (3) corrective action under the authority of the State Water Pollution Control Act.

The formalized demonstration requirement will ensure that only those wastes which qualify will be exempted. Since these dischargers either have obtained or will be obtaining NPDES permits under the federal Clean Water Act and the State Water Pollution Control Act, proper effluent limits assigned by the permit conditions will ensure that surface waters are protected. Also, a yearly audit of such exempted waste handlers which requires annual reports as outlined in the proposed rule ensures that they continue to qualify for the exemption.

The economic burden on the industry is now greatly reduced, thus mitigating potential adverse economic effects. First, the forthcoming ban on land disposal of wastes will not affect the exempted waste mixtures. Second, those impoundments handling only the exempted waste mixtures will no longer be required to retrofit with liners by the HSWA deadline of November 8, 1988. Other benefits to the industry are: (1) they need not go through the costly and resource-intensive delisting procedure for these mixture wastes; (2) no lengthy permit modifications will be required; (3) industry will not spend resources which may be needed in some cases in the absence of today's proposed rule to segregate the wastes. All these savings will benefit the regulated community and the State's mixture rule will not be a hindrance to their competitive position with plants in neighboring states.

The proposed DNR modifications to the EPA mixture rule should have minimal impact on the industry. The demonstrations required in today's proposed rules are also required by the EPA rules but DNR has formalized the procedure to avoid any confusion. Many of the facilities covered by the mixture rule exemption already have groundwater monitoring in place as part of the interim status standards (40 C.F.R. Part 265, Subpart F). Thus, today's proposed and promulgated requirement of groundwater monitoring should not add any burden on these facilities. Moreover, under the corrective action requirement for solid waste management units (SWMU) pursuant to HSWA, EPA requires groundwater monitoring to ensure that there are no

"releases" from the SWMU. Most of the facilities handling mixture wastes exempted in today's proposal and promulgation are SWMUs. Groundwater monitoring will be necessary for these facilities as well as a part of the Department's program implementing the rule.

DNR will require each facility to submit a form identifying all wastewater treatment facilities subject to groundwater monitoring under the new rule. This form will identify which facilities have or will install groundwater monitoring complying with 40 C.F.R. Part 265 or whether they will need approval from the Chief. In addition, the form will require that a compliance schedule be submitted. The Department will include compliance with the demonstration as a part of its routine inspections of the facilities.

D. Proposed Rule

The proposed rule modifies Section 3.1.2 of HWMR, titled "Definition of Hazardous Waste." Modifications proposed today are identified by strikethroughs and underlines. Table 1 identifies the sections of regulations proposed today, corresponding EPA regulations, and a brief summary of each section. Comments on the proposed rule will be accepted until 5:00 p.m. on October 31, 1986.

E. Emergency Rule

The emergency rule is identical to the rule being proposed today. The purpose of this emergency promulgation is to grant immediate relief to industry from the more stringent existing DNR rule. The emergency rule will relieve industry from expending more than \$55 million for capital improvements which would be required for compliance with the existing rule. The emergency rule will also assure that certain treatment facilities will not be adversely affected by the ban on land disposal of certain wastes pursuant to HSWA which becomes effective November 8, 1986. The emergency rule becomes effective September 22, 1986.

TABLE 1  
"Mixture Rule"

Section of DNR Regs Changed/Added	Explanation	Brief Summary of Contents	Corresponding EPA Section
3.1.2.a.2.ii	This section replaces the old Sec. 3.1.2.a.2.ii which stated that a mixture of a listed hazardous waste and any waste is always a hazardous waste.	Mixture of listed characteristic waste and any waste is not hazardous if the mixture no longer exhibits any characteristic of hazardous waste.	261.3(a) (2)(iii)
3.1.2.a.2.iii	This section replaces current Sec. 3.1.2.a.2.iii which is now re-numbered as Sec. 3.1.2.a.2.iv. Identical to EPA section except for the demonstration to be submitted.	Subject to certain conditions laid out in Section 3.1.2.a.3 the mixtures of any waste listed as a hazardous waste identified in Sub-section A,B,C,D and E of this section are not hazardous wastes.	261.3(a) (2)(iv)
3.1.2.a.2.iii.A	New subsection identical to EPA rule.	Lists the spent solvents that are exempted from being hazardous if their concentration in the headworks of WWTP does not exceed 1 ppm in the weekly average flow.	261.3(a) (2)(iv)(B)
3.1.2.a.2.iii.B	New subsection identical to EPA rule.	Lists the spent solvents that are exempted from being hazardous if their concentration in the headworks of WWTP does not exceed 25 ppm in the weekly average flow.	261.3(a) (2)(iv)(B)

Section of DNR Regs Changed/Added	Explanation	Brief Summary of Contents	Corresponding EPA Section
3.1.2.a.2.iii.C	New subsection identical to EPA rule.	Exempts heat exchanger cleaning sludge in the petroleum industry from being hazardous.	261.3(a) (2)(iv)(C)
3.1.2.a.2.iii.D	New subsection identical to EPA rule.	Exempts "de minimis" losses of discarded commercial products or chemical intermediates listed in Section 3.4.4 from being hazardous. "De minimis" loss is defined qualitatively.	261.3(a) (2)(iv)(D)
3.1.2.a.2.iii.E	New subsection identical to EPA rule.	Exempts wastewater from laboratory operations if the annualized average flow of lab wastes is less than 1% of total wastes at the headworks of WWTP or combined concentration of wastes from lab in the headworks is less than 1 ppm on an annual basis.	261.3(a) (2)(iv)(E)
3.1.2.a.2.iv	New subsection identical to EPA rule.	The number of this subsection has been changed to iv from iii. No change in the language.	261.3(a) (2)(i)
3.1.2.a.3	Demonstration expanded beyond EPA rule. DNR rule has four demonstrations; EPA rule has two.	The demonstrations which the owner or operator must comply with are listed under this section.	261.3(a) (2)(iv)

Section of DNR Regs Changed/Added	Explanation	Brief Summary of Contents	Corresponding EPA Section
3.1.2.a.3.i	Demonstration identical to EPA rule. However, DNR requires demonstration to be in writing to the Chief.	Owner or operator must make written demonstrations for the various limits of wastes described in Sections 3.1.2.a.2.iii A, B, and E before an exemption is claimed. Must also submit an annual audit to the Chief.	261.3(a) (2)(iv)
3.1.2.a.3.ii	EPA does not require this demonstration. May be covered under the general demonstration.	Must submit a list of the hazardous waste in the exempted mixture. This is required particularly for "de minimis" loss and lab wastes.	261.3(a) (2)(iv)
3.1.2.a.3.iii	EPA requires a demonstration but does not say how and when. DNR rule formalizes demonstration.	Requires written demonstration to Chief that waste-water mixture is treated in WWTP pursuant to the State's Water Pollution Control Act	261.3(a) (2)(iv)
3.1.2.a.3.iv	DNR provision added to detect releases to groundwater. EPA does not have such requirement.	The operator must certify in writing that he complies with groundwater monitoring as required for facilities under interim status.	None

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OFFICE OF WEST VIRGINIA  
SECRETARY OF STATE



STATE OF WEST VIRGINIA  
DEPARTMENT OF NATURAL RESOURCES  
CHARLESTON 25305

ARCH A. MOORE, JR.  
Governor

June 10, 1986

RONALD R. POTESTA  
Director  
MICHAEL A. FOTOS  
Deputy Director

The Honorable Ken Hechler,  
Secretary of State  
Capitol Complex, Suite 157-K  
Charleston, West Virginia 25305

Re: Publication of an Advance Notice  
of Proposed Rulemaking;  
Hazardous Waste Management  
Regulations

Dear Mr. Hechler:

Attached for your publishing in the State Register is an Advance Notice of Proposed Rulemaking issued by the Department of Natural Resources. We would appreciate its publishing at your earliest convenience.

If you have any questions or comments, please contact Mr. Ron Shipley at 348-2761 or Mr. Tim Laraway at 348-5935.

Sincerely,

A handwritten signature in cursive script, appearing to read "R. Potesta".

Ronald R. Potesta  
Director

RRP/rsb

Attachment:

ADVANCE NOTICE OF PROPOSED RULEMAKING

PROGRAM: Hazardous Waste Management Program

REGULATIONS: Hazardous Waste Management Regulations

AGENCY: Department of Natural Resources

AUTHORITY: West Virginia Code, Section 20-5E-6

ACTION: An advance notice of the Department's intent to propose modifications to the existing hazardous waste management regulations by incorporating a "Mixture Rule" along with a request for comments and data on: (1) the need for adopting a "Mixture Rule"; (2) pros and cons of such an action from administrative, economic, environmental and health standpoints; (3) impacts on the regulated community, health and the environment; and (4) suggestions for an administratively workable "Mixture Rule".

SUMMARY: On November 17, 1981, the Environmental Protection Agency promulgated an interim final rule exempting certain mixtures of wastes and hazardous wastes from the "presumption of hazardousness" concept contained in EPA regulations originally promulgated on May 19, 1980. The interim final rules were open for comments and EPA has not yet finalized the rule; however, it has been in effect since November 17, 1981 and continues to remain in effect. The Department of Natural Resources (DNR), for reasons discussed below, has not adopted these exemptions as state regulations. Thus the State and federal programs are different.

The Department is today issuing a notice which outlines the history of the "mixture rule", and the Department's concerns with the EPA rule. In addition, we attempt to express the regulated community's concern over the lack of a State "mixture rule" and their rationale for adopting one. Finally, we outline various options for proposed rulemaking on this issue and seek comments and data on possible resolution of the issues.

DATES: DNR will accept public comments on this notice until 5:00 p.m. June 25, 1986.

ADDRESS: Comments or inquiries should be addressed to Mr. Ron Shipley, Special Assistant to the Director, Director's Office of Regulatory Affairs, 1800 Washington Street, East, Building 3, Room 842, Charleston, West Virginia 25305, Telephone: (304) 348-2761.

OFFICE OF THE  
SECRETARY OF STATE

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## SUPPLEMENTARY INFORMATION:

### I. Reasons for Today's Notice:

The Department is issuing an Advance Notice of Proposed Rulemaking (ANPR) because of widespread interest and the many different regulatory options available on the topic discussed. Even though DNR has not adopted EPA's "mixture rule", the agency recognizes the industry's concerns and wishes to resolve the issue through rulemaking. Thus, the agency is making available to the public both DNR and regulated community views on "mixture rule" issues and requests comments and data. Publishing an ANPR to solicit reaction and comments provides the public regulated community and others with an opportunity to have input into the Department before rulemaking is proposed and to help shape the Department's regulatory approach.

The Department is requesting responses to this ANPR on an expedited schedule because it appreciates the importance of the topic to the regulated community and the Department's ongoing permit issuance process under the hazardous waste program. Although we are requesting comments within fifteen (15) days from issuance of this ANPR, we will attempt to consider opinions and information received after that date if received prior to the formal proposed rulemaking. The issue at hand has been brought to the Department by the West Virginia Manufacturers Association (WVMA), who, through petitions for rulemaking and discussions with the department, urged DNR to modify the current state "Mixture Rule" so that it is in conformity with EPA's mixture rule.

### II. Background:

#### A. Current EPA "Mixture Rule":

The current EPA "mixture rule" was promulgated on November 17, 1981 as an "interim final" rule. EPA accepted comments on this rule and has not yet promulgated the "final" rule. EPA's interim final rulemaking amended the previous federal mixture rule which stated that a waste mixture resulting from a mixture of a waste and one or more listed hazardous wastes was hazardous. Thus, all mixtures containing hazardous waste were presumed to be hazardous, regardless of concentration, quantity, source or the treatment which such a waste mixture received.

In promulgating the November 17, 1981 mixture rule EPA "recognized that a rule designating all waste mixtures containing listed hazardous wastes as hazardous could create some unintended results". In support of its action, EPA stated:

The Agency believes that the mixture rule, as presently drafted, sweeps too broadly when applied to all mixtures of wastewater and listed hazardous waste. Strict application of the mixture rule would cause to be hazardous waste a mixture of large volumes of non-hazardous wastewater and the relatively small amounts of listed hazardous wastes which are introduced into the wastewater as a result of normal manufacturing operations or on-site laboratory operations. Resulting wastewater treatment sludges would likewise be hazardous waste under Section 261.3(c)(2). In many cases, however, these relatively small amounts of listed hazardous wastes are likely to be greatly diluted in the wastewater so that the resulting mixture is not hazardous. In addition, hazardous constituents of the listed hazardous wastes may adsorb to soil, degrade or otherwise attenuate during the course of wastewater treatment, further reducing the potential hazardousness of the mixture. A presumption of hazardous is not warranted in these situations.

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EPA believes the small quantity of listed hazardous wastes allowed by today's amendment in exempted wastewater mixtures will be present in such low

concentrations that they do not pose a substantial hazard to human health or the environment and, furthermore, often will be treated in the plant's wastewater treatment system.

EPA, therefore, exempted from the regime of hazardous wastes: (1) certain mixtures of wastes and "listed" hazardous wastes, if the result is a waste water mixture, the discharge of which is subject to Section 402 or Section 307(b) of the Clean Water Act; and (2) all mixtures of wastes and hazardous waste that is listed solely because it exhibits a hazardous waste characteristic, once the mixture no longer exhibits any hazardous characteristics.

EPA identified five distinct categories of mixtures subject to regulation under the Clean Water Act for exemption: (Please refer to 40 CFR 261.3(a)(2)(iii) and (iv): (1) Spent solvents such as carbon tetrachloride, tetrachloroethylene and trichloroethylene when mixed with waste water if the ratio of maximum weekly usage of these solvents to average weekly waste water flow in the waste water treatment plant (WWTP) does not exceed 1 ppm; (2) mixtures of methylene chloride, 1,1,1 trichloroethane, and 11 other spent solvents and wastewater if the ratio of weekly usage of the solvents of total wastewater flow does not exceed 25 ppm; (3) heat exchange bundle cleaning sludge from the petroleum refining industry; (4) mixture of wastewater and listed discarded commercial chemical product resulting from "de minimis" losses. EPA has defined "de minimis" losses qualitatively (without assigning any number for quantity limits) as follows: losses from normal handling operations (e.g. spills from unloading or transfer of material from bins or other containers, leaks from pipes, valves or other devices, minor leaks of process equipment, storage tanks or

containers, as well as other examples; (5) wastewater containing listed toxic wastes from laboratories, if either the average annual flow from the laboratory does not exceed one percent of the total wastewater flow or the total concentration of the wastes does not exceed 1 ppm of the wastewater treated.

EPA decided that these exempted discharges of wastes "do not pose a substantial threat to human health or environment," because they are in very low concentrations and also because they are treated in wastewater treatment plants with approved NPDES permits.

B. Current State Mixture Rule:

In essence, DNR does not have a "mixture rule" containing exemptions similar to current EPA provisions contained in 40 CFR 261.3(a)(2)(iii) or (iv). The State's regulations in this regard (Section 3.1.2 of the Hazardous Waste Management Regulations, Series 15), are analogous to the EPA rule that existed before the promulgation of EPA's rule on November 17, 1981. The state rule defines as hazardous all wastes generated from the mixture of a waste and one or more hazardous wastes "listed in Section 3.4 and which has not been excluded in Section 16". The DNR rule does not contain any of the exemptions contained in the federal regulations explained earlier.

C. Relation of State and Federal Hazardous Waste Management (HWM) Programs:

West Virginia has been authorized (effective May 29, 1986) to implement the federal RCRA Program, except for components arising from the Hazardous and Solid Waste Amendments of 1984. One of the requirements the state had to meet for authorization is that the state

program cannot be less stringent than the federal program. Since EPA regulations establish only a "floor" of program stringency, the state program may contain elements more stringent than EPA's regulations, as long as the state program remains "consistent with and equivalent to" the federal program.

The adoption of mixture rule exemptions in the federal program reduces the amount and types of waste subject to regulation as hazardous wastes. The lack of a state mixture rule makes the State's program more stringent than EPA's program.

### III. DNR's Concerns with EPA's Mixture Rule:

DNR believes that the current EPA mixture rule presents issues concerning its administrative workability and raises some human health and environment concerns.

(1) Administrative workability: The Department recognizes that the waste streams at various plants may vary; consequently, the Department is concerned with ensuring that the conditions necessary for the mixture rule exemption actually exist. For example, the Department notes that certain EPA mixture rule exemptions require "demonstrations" by the generator that the mixture consists of wastewater regulated under the Clean Water Act and that the mixture does not exceed 1 ppm of usage of certain solvents in the wastewater on a weekly basis. To our knowledge, EPA has not required demonstrations from generators for the mixture rule to apply, nor has EPA published guidance on what constitutes an acceptable demonstration. In carrying out the regulation, how detailed of a demonstration should the Department require and over what period of time should it cover? In addition, how

can the Department ensure that the condition continues to be met and on what frequency should we require such assurance or demonstration? Finally, if a demonstration is required, what form of recognition should the department provide (e.g. approval/disapproval, exemption, conditional waiver, etc.) and should appeals of the Department's decision be allowed?

In addition to the above issue, the Department questions the workability of a "de minimis" rule. "De minimis" quantities are not quantitatively limited. Thus, without establishing a quantitative limit, large quantities resulting from spills, etc. of hazardous waste may not be regulated under the hazardous waste program.

We should note that mixtures containing characteristic hazardous wastes which lose that characteristic are no longer treated as hazardous waste under the EPA rule. How can the Department routinely ensure that such mixtures have lost that hazardous characteristic and can, therefore, be disposed of in a facility not regulated under the hazardous waste program.

Finally, due to the variability of waste streams, the possibility exists that a company's waste may be regulated and then exempted fairly often. How can DNR organize a system so this does not become burdensome on either DNR or the regulated community?

(2) Environmental Risk: Many of the wastewater streams containing EPA exempted waste mixtures may utilize surface impoundments as part of the treatment system. Such units will be subject to regulation under the Clean Water Act (for example, NPDES Program), but not the hazardous waste program. Surface impoundments are known to leak even when

protective measures are employed, leading to the potential for groundwater contamination. Arguably, groundwater standards do not exist for any contaminants under the present State Water Pollution Control Act for NPDES regulated facilities. The State's hazardous waste program, on the other hand, contains a stringent groundwater protection standard. Treatment in an unlined surface impoundment may lead to environmental harm in the form of ground water contamination without any means for its regulation. However, many of the industrial wastewater treatment plants may be constructed of impervious material and not subject to leakage. To what extent should the imperviousness of the treatment facility dictate the Department's position?

In addition to this specific environmental risk, the Department is concerned about the lack of enforceability of the EPA mixture rule based on the administrative issues identified above. Inability to monitor and regulate these waste mixtures may increase environmental risk.

(3) Health Risk: The EPA mixture rule exemption levels for spent solvents are considerably higher than the recommended levels in water for health protection. For example, the exemption level for methylene chloride is 25,000 ppb whereas the recommended health level is 1.9 ppb. Even with 95% efficiency of removal in a wastewater treatment plant subject to regulation under the Clean Water Act, the discharge will contain 1250 ppb of this compound which is almost 600 times the allowable health protection level.

It would appear that the risk reduction associated with the EPA mixture rule is based on dilution potential in the wastewater treatment

system rather than reduction by treatment since the effect of the wastewater treatment plant on such pollutants is not well understood. The condition that the mixture be treated at an NPDES regulated facility, therefore, may not remove a portion of the hazardous waste.

The "de minimis" loss provision without any quantitative limits, can pose health risks. We note that for many of the compounds listed under "de minimis" loss and laboratory wastewaters, there are no published health protection standards available to project any meaningful health risk analysis.

(4) Other Concerns of DNR:

(a) The effect of the "EPA exempted waste mixtures" on wastewater treatment plants (WWTP) is unknown. These wastes could be toxic to biological activated sludge systems, could affect disinfection, may form chlorinated hydrocarbons, and could be detrimental to other units within the WWTP.

(b) Many of the chemicals in the exempted mixtures can have an affinity for certain phases of the wastewater treatment system and can result in a concentration of these chemicals within the waste stream. This could lead to unexpected and unpredictable health and environmental impacts.

IV. Industry Concerns with the State Mixture Rule:

Industry has expressed a number of concerns with DNR's position on the mixture rule during meetings with the agency and in other forums. Some of these concerns, as the Department understands them, are identified below:

(1) The treatment of small quantities of hazardous waste in a

(1) The treatment of small quantities of hazardous waste in a wastewater treatment plant is neither risky nor harmful to human health or the environment.

(2) Most of the mixture rule exempted wastes are amenable to treatment at industrial wastewater treatment plants and the NPDES permit considers that fact.

(3) It is unnecessary to regulate mixtures that no longer exhibit any hazardous waste characteristics under the hazardous waste program, since they are no longer hazardous wastes.

(4) Under the State rule, industry must segregate and handle relatively small quantities of hazardous waste. This segregation and handling is expensive and not equal to derived benefits because the risk of harm from these wastes is minimal.

(5) In the absence of mixture rule exemptions, a regulated industry will have to delist wastes containing "EPA exempted waste mixtures" which they consider not to pose potential hazard to human health and environment. This process is very cumbersome and wasteful of industrial resources.

(6) Permit modifications to allow hazardous waste management treatment, storage or disposal facilities to receive EPA-exempted waste mixtures involve lengthy agency review and public participation which is not conducive to industry competitiveness in general and to research and development (which may generate toxic lab wastes) in particular. For example, if a chemical company wishes to conduct lab experiments by conducting "bench scale" tests of a proposed production process, the company may have to proceed to list the hazardous waste and receive a

permit for its treatment, storage or disposal, even though the hazardous waste generated is a small amount relative to the quantities of hazardous waste handled by the facility.

(7) The current state rule places West Virginia manufacturers at a disadvantage because other states with authorized programs incorporating the EPA mixture rule give their industries an economic edge over industries in West Virginia. For example, WWTP's in this state may require costly retrofitting or replacements to allow them to receive "EPA exempted waste mixtures" since West Virginia's program treats such wastes as being regulated under the hazardous waste program.

(8) Regulation of "EPA exempted waste mixtures" under both the Clean Water Act and the Hazardous Waste Management Program is duplicative and unnecessary.

#### V. DNR Alternatives and Options:

DNR believes that there are several options and alternatives that may be considered to resolve the issues raised in today's notice. The following are a few among the many possible approaches.

A. Retain the "mixture rule" as it exists currently in the State Hazardous Waste Management Regulations.

B. Adopt EPA's "mixture rule" as promulgated in the interim final rule of 1981 and incorporate these in the state regulations, or

C. Modify the existing state "mixture rule" such that it generally meets the objectives of the regulating agency, regulated community and the citizens. This approach could involve a combination of one or more of the options in each of the following five categories:

1. Listed Characteristic Wastes:

- a. Adopt EPA rule which exempts waste mixtures of listed characteristic wastes from regulation under the hazardous waste program when they do not exhibit any hazardous characteristics. If so, should DNR devise a process for demonstrating when the mixture no longer exhibits any hazardous characteristics. How often?
- b. Retain the state rule which does not grant such an exemption for waste mixtures of listed characteristic wastes.

2. Spent Solvents:

- a. Adopt EPA rule which would exempt from hazardous waste regulation waste mixtures containing spent solvents within the levels prescribed in 40 CFR 261.3(a)(2)(iv)(A) and (B).
- b. Retain state rules which do not grant such an exemption.
- c. Modify 40 CFR 261.3(a)(2)(iv)(A) and (B) to lower the allowable concentration in the wastewater in a WWTP below the 1 ppm or 25 ppm levels to such an extent that health criteria in water are assured of protection. Is such health criteria available?
- d. Modify 40 CFR 261.3(a)(2)(iv)(A) and (B) to use waivers instead of granting an exemption such that the facility will be required to perform initial and continuous demonstrations of conditions in (a) or (c).
- e. Modify EPA rule to exclude WWTP surface impoundments from exemption provision.

f. Modify EPA rule to permit exemptions for waste mixtures only if the NPDES permit imposes specific limitations on the list of hazardous waste compounds in the discharges from WWTP.

3. "De Minimis" Losses:

a. Adopt EPA rule which exempts waste mixtures arising out of 'de minimis' losses unconditionally. "De minimis" losses will have the same qualitative meaning as contained in EPA regulations.

b. Retain state rule which does not grant such an exemption.

c. Establish maximum quantitative levels for "de minimis" losses. If losses exceed these levels, the waste mixtures therefrom will be fully regulated under the hazardous waste program. The loss levels could be (a) CERCLA (Superfund) reportable quantities, (2) small quantity generator exclusion limits - either the 100 kg/month or 1000 kg/month level, or (3) other limits which would assure protection of public health and environment.

d. Modify EPA rule to exclude WWTP surface impoundments from the exemption provision.

e. Use waivers instead of exemptions to allow for continuous demonstration.

4. Wastewater Laboratory Containing Toxic Wastes:

a. Adopt the EPA rule.

b. Retain the state rule which does not grant any exemption.

c. Modify 40 CFR 261.3(a)(2)(iv)(E) to, (i) either lower the

allowable concentration in the wastewater going to the WWTP below the one percent or 1 ppm levels to such an extent that health criteria can be reasonably protected in surface waters, or (ii) modify the interval of estimation of wastes from "annualized" to "weekly" or "monthly", or (iii) a combination of (i) and (ii).

- d. Modify 40 CFR 261.3(a)(2)(iv)(E) to use waivers instead of granting an exemption such that the facility will be required to perform initial and continuous demonstrations of conditions in (a) or (c).
- e. Modify EPA rule to exclude WWTP surface impoundment from exemption provision.
- f. Modify EPA rule to permit exemptions for waste mixtures only if the NPDES permit imposes specific limitations on the listed hazardous waste compounds in the discharges from WWTP.

5. Heat Exchanger Sludge (K050):

- a. Adopt EPA exemption
- b. Retain state rule not granting any exemption.
- c. Assign a maximum level for the sludge waste concentration beyond which no exemption will be applicable.

VI. Request for Comments and Data:

In addition to comments or data concerning any issue previously raised in this ANPR, the agency is today requesting comments and data from the public, regulated community and any other agencies having an interest in the matter on the following lines:

- (1) Is there a need to modify the current state "Mixture Rule"?  
What are the justifications?
- (2) What are the advantages and disadvantages of the action opted for from an economic, environmental or health standpoint?
- (3) What will be the impact of such action on the environment, public and the regulated community?
- (4) What could be a workable "Mixture Rule" which will generally meet the objectives of all concerned?
- (5) What is the relationship between NPDES by pass and upset provisions and de minimis losses under EPA's mixture rule)?  
Will such NPDES provisions allow de minimis losses to go unregulated in the NPDES program?
- (6) What P, U, K, or F wastes can and does WV/NPDES cover, what compounds does it not cover? Is NPDES limited to [307 priority pollutants? Can water quality standards be used to protect the environment in this regard? How?
- (7) Will the specified levels for carbon tetrachloride, etc., be low enough to protect human health and the environment?
- (8) How many hazardous waste treatment storage or disposal facilities will be affected by a rule change?
- (9) How much of the waste would no longer be regulated under the hazardous waste management program?
- (10) Are there any facilities which are regulated under the hazardous waste management program solely because of the mixture rule, i.e. does not handle other hazardous wastes?
- (11) Would any of the mixtures have detrimental effects on the

wastewater treatment plants efficiency at the levels specified?

- (12) Would any of the mixtures receive little or no treatment in a wastewater treatment plant?
- (13) How effective are wastewater treatment facilities in removing or treating such materials?
- (14) Do such wastewater treatment plants have groundwater monitoring associated with them?
- (15) How many generators would no longer be regulated under the hazardous waste management program?
- (16) How much hazardous waste could be delivered to wastewater treatment plants in the State and still qualify for the 1 ppm, 25 ppm and 1 percent exemption?
- (17) How effective would a wastewater treatment plant have to be to meet water quality standards? Are they that effective?
- (18) How much of these compounds would likely go to: unlined surface impoundments, surface impoundments, with or without groundwater monitoring?