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September 12, 1983

OF COUNSEL
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CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Water Management Division
Environmental Protection Agency
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Attn: Earline C. Hanson

Re: Public Notice No. 83-FL-077/NPDES Permit No.
FL-000-2283

Dear Ms. Hanson:

We are herewith submitting comments on the above referenced National Pollutant Discharge Elimination System (NPDES) permit on behalf of our client, Gulf Power Company (Gulf). The permit, proposed to be reissued for Gulf's Plant Scholz, has been discussed in its development stages by personnel of the U.S. Environmental Protection Agency (EPA) Region IV and Gulf. Although such discussions served to resolve several issues, the draft permit still contains provisions which are not totally acceptable and merit further comment.

In order to facilitate your review of Gulf's comments, we have presented them below in the order that the related subject matter appears in the draft permit. In addition, a suggested mark-up of the draft permit is attached hereto as Attachment "A".

PAGE I-1

The Permit Should Reflect the Nationally
Applicable Compliance Deadline for
Total Residual Chlorine in Cooling Water Discharges

On April 12th of this year, EPA Region IV sent Gulf a draft permit for the Scholz Plant. In that draft EPA required that Free Available Chlorine (FAC) be monitored and sampled until July 1, 1984, and that Total Residual Chlorine (TRC) would be monitored and sampled for thereafter.

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MANAGEMENT
SERVICES SECTION
EPA REGION IV

On June 10, 1983, Gulf submitted formal comments on that draft to EPA. In those comments Gulf requested that the FAC monitoring and sampling requirements be deleted and that the TRC monitoring and sampling requirements be made effective immediately upon issuance of the permit. Since then, Gulf has conducted some very limited testing to see if the 0.2 mg/l TRC limit could be met. The data that were collected preliminarily indicate that compliance with the 0.2 mg/l TRC limit could be extremely difficult. With that in mind, Gulf filed, on August 11, 1983, a request for a Section 301(g) variance from the TRC limit with Mr. Charles Jeter of EPA, Region IV. On August 24, 1983, EPA responded to Gulf's 301(g) request in a letter from James M. Greenfield (EPA) to Mr. Jim Vick of Gulf. In that letter, EPA's initial response to the variance request was to deny it. However, EPA pointed out that approval might be forthcoming if Gulf could (a) provide data and information showing that no adverse impacts would result from the chlorine discharge and (b) maintain compliance with all State requirements.

Gulf feels that to adequately determine the impacts, if any, from the chlorine discharge, a mutually agreed upon data and information gathering program must be put together. This will obviously be time consuming as will the actual physical data collection. Once this has been completed, then EPA and Gulf can factually determine if a less stringent TRC chlorine limit may be applicable.

On June 23, 1983, a memorandum was forwarded from Mr. Steven Schatzow of the EPA Headquarters to the Water Division Directors (Regions I-X) to serve as a guidance document on the compliance date for TRC, BAT limitations for the steam electric point source category. In that memo, a November 19, 1985 date was set as the final deadline for all TRC discharges to come into compliance with the effluent guidelines for TRC.

Based on the above, Gulf hereby requests that the final compliance date for the TRC discharge be November 19, 1985. At that time, Gulf would have to be in compliance with the TRC effluent limit of 0.2 mg/l or a less stringent number if the 301(g) variance for the TRC is approved. In the interim, the FAC limits would be 0.2 mg/l (average) and 0.5 mg/l (instantaneous maximum) as defined in the expired NPDES permit.

Gulf requests that this schedule appear on Page I-5(B)1 of the permit.

A Chlorine Usage Report Should Not Be Required.

The steam electric BAT effluent guidelines allow total residual chlorine (TRC) to be discharged from any unit for up

to two (2) hours per day per unit; in addition, the guidelines allow TRC to be discharged in concentrations up to and including 0.2 mg/l. 40 CFR §423.13(b); 47 Fed. Reg. 52290. As long as these limits are met, the amount of chlorine added should be of no consequence. The burden of having to report the amount of chlorine added during each period of chlorination is therefore unjustified. Gulf therefore requests that the language requiring the reports be deleted.

PAGE I-2

Flow-Weighted Concentration Limits
Are Inappropriate for the Combination of
Coal Pile Runoff and Ash Transport Waters

The discharge limitations for outfall 002, the ash pond, have been "flow-weighted". In particular, the daily maximum oil and grease limitation specified by the effluent guidelines for the facility - 20 mg/l - has been lowered to 15 mg/l. Similarly, the daily maximum limitation for total suspended solids (TSS) has been reduced from the guidelines value of 100 mg/l to a value of 77 mg/l. This same proposal was contained in the prepublication draft permit for the Scholz Plant. Gulf's comments on the draft forwarded its view that flow-weighted concentration limits (FWCL's) are inappropriate for the utility industry, especially with regard to ash pond discharges. Gulf still is of that view. The use of FWCL's penalizes the utility for treating waste streams discharging to an ash pond. This is inconsistent with the fact that both EPA and the utility industry have long realized and accepted the value of ash ponds as a treatment system for various waste streams of electric utilities.

The whole concept of developing FWCL's for combined waste streams revolves around the assumption that one can quantify in a systematic manner the flows from the various waste streams and then adjust individual effluent limitations accordingly to come up with a combined limitation. Although this approach can have substantial merit and utility with regard to industrial discharges which have carefully regulated and metered flows, such as is the case in the chemical industry, the approach breaks down when it is applied to rainfall related events. This is especially true in the southeastern United States and particularly in the Panhandle of Florida where the 10-year, 24-hour rainfall event can easily produce seven to ten inches of rain. To assume, in the case of the Scholz Plant, that 7.5 inches of rain is falling on the coal pile 365 days per year produces a gross, over estimate. Therefore, the calculation carried out by the Agency to support the FWCL's, even assuming

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that the allowable concentrations of oil and grease and TSS from the coal pile runoff proposed by the Agency were defensible, unfairly penalizes Gulf because it uses infrequent flow conditions to support an effluent limitation that must be met at all times, whether it rains or not. Surely, such a BPJ is arbitrary and capricious.

These very issues have been carefully reviewed by the Utility Water Act Group (UWAG) in its voluminous comments to the Agency over the past two years with regard to this matter. Several of these UWAG documents were forwarded to EPA in Gulf's June 10, 1983 comments on the prepublication draft permit. Those earlier comments and their attachments are incorporated herein by reference. A later UWAG correspondence on this matter is attached hereto (Attachment "B"). It is our understanding that the Agency is in the process of developing guidance on establishing permit limitations for steam-electric power generating facilities. We would respectfully suggest that EPA Region IV should not impose FWCL's on coal pile runoff prior to the development of such guidance.

BPJ For Coal Pile Runoff Should Equate
To the Effluent Guidelines Limits for the Ash Pond

EPA forwarded to Gulf in its April correspondence a data sheet indicating how the FWCL's for oil and grease and TSS were developed. In essence, the Agency assumed that the 10-year, 24-hour rainfall event would produce 0.6 million gallons per day (MGD) of water that would run off of the coal pile into the ash pond. The permit writer then assumed that the coal pile runoff had an effluent limitation of zero mg/l for oil and grease, both on the 24-hour and 30-day averaging times, and carried out the calculation to flow-weight the various waste streams as shown in Attachment "C". The effect of that calculation was to lower the daily maximum oil and grease discharge limitation from 20 mg/l to 15 mg/l. It is Gulf's view that this methodology is entirely inappropriate. Because coal pile runoff is unregulated with regard to oil and grease, when arriving at combined stream limits imposed on a concentration basis, which we question in the first place, the Agency should follow the "partial credit" approach employed in its pretreatment regulations. In essence, the proper oil and grease limits to assign to coal pile runoff are the same as those imposed in the guidelines for the regulated electric waste streams -- that is, 15 mg/l daily average and 20 mg/l daily maximum (15/20 limits).

There is no reason to believe that unregulated coal pile runoff into a combined waste stream treatment facility (ash

pond) will automatically result in dilution. Such runoff could easily contain oil and grease that would flow untreated into navigable waters if the runoff did not flow into the ash pond. The guidelines assume that the ash pond is capable of treating waste streams to meet the 15/20 limits. There is no factual basis for assuming that coal pile runoff discharges into the ash pond will enhance that treatment efficiency.

The FWCL for TSS proposed for serial No. 002 is even more troublesome. In that instance, the daily maximum TSS limit of 100 mg/l has been reduced to 77 mg/l. (See Attachment "D") Once again, the coal pile runoff flow during the 10-year, 24-hour rain has been used to discount the guidelines limit from the ash pond. It is true that the effluent guidelines establish a TSS limit of 50 mg/l as an instantaneous maximum on coal pile runoff when discharged separately. The averaging period for TSS from the coal pile therefore is different from the daily or 30-day average required for TSS discharged from the ash pond. As a consequence, coal pile runoff is unregulated for the averaging time of the other waste streams normally combined for treatment in the ash pond. Once again, to the extent that the Agency intends to establish best professional judgment (BPJ) limitations for this stream, under the partial credit approach discussed above, especially where the flow of the coal pile runoff into the ash pond is unlikely to have a significant impact on the pond's treatment ability, the 30/100 mg/l TSS limits for all other waste streams should be applied to coal pile runoff.

In addition to the conceptual problems with EPA's proposal to discount the TSS effluent limitation allowed for the ash pond by the coal pile runoff flow, we question EPA's conclusion that the 50 mg/l instantaneous maximum for TSS translates into 30 mg/l on both the 1-day and 30-day averaging times. Although the effluent limitation from the ash pond itself for the 30-day period is 30 mg/l, there is nothing to support the Agency's conclusion that the instantaneous maximum value should translate into a number as low as 30 mg/l on a daily average. Gulf recognizes that converting the instantaneous limitation into a daily or 30-day average limitation is not a straightforward exercise. Perhaps this as much as anything else supports the conclusion that BPJ for the coal pile runoff into the ash pond should be assumed to be the 30/100 mg/l limitations already applicable.

Gulf is unaware of any documentation demonstrating that EPA's proposal BPJ's for oil and grease and TSS have been arrived at after evaluation of all factors required to be considered by

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\$304 of the Federal Water Pollution Control Act, or proposed for consideration by EPA's recent proposed changes to 40 CFR \$125.3. See 47 Fed.Reg. 52072, et seq.; November 18, 1982.

Any Flow-Weighted Concentration Limits
For the Ash Pond Discharge Must Give
Full Credit for Rainfall into the Ash Pond

In the Agency's response to Gulf's earlier comments, it was stated that it would be particularly damaging to allow the discharge of up to 100 mg/liter TSS (presumably on a daily basis) from coal pile runoff, because under the dilution situation, the quantity the environment would have to absorb would be excessive. Gulf is unaware of any factual support for this statement by the Agency. Moreover, EPA has not taken into account the rain on the ash pond itself.

As a practical matter, when the 10-year, 24-hour rain occurs at the Scholz Plant, approximately 6 acres of coal pile will produce runoff into the ash pond. However, the ash pond itself comprises approximately 40 acres. During such a rainfall event, the volume of precipitation that falls directly into the ash pond is almost 7 times the volume that would be brought in from the coal pile. The Agency has long recognized that ash ponds provide acceptable treatment. The EPA effluent guidelines do not require the effluent limitations that apply to ash pond outfalls to be discounted or reduced to reflect dilution from rainfall into the ash ponds. It would be inconsistent then to nevertheless presume that coal pile runoff dilutes a "dry" ash pond during such a rainfall event, especially in light of its smaller area, for purposes of arriving at a final effluent limitation.

If BPJ limits are to be applied to the ash pond/coal pile runoff system in an internally consistent manner, rainfall directly into the ash pond must be taken into account. The logic of this can be seen when one considers that at the Scholz Plant during the 10 year, 24-hour event, rainfall on the coal pile produces a 0.60 MGD flow, while rainfall into the ash pond produces a corresponding 4.1 MGD flow. With respect to oil and grease, the 15/20 mg/l guideline limits naturally should apply to all direct rainfall into the ash pond. If the same limits were applied to coal pile runoff, FWCL's oil and grease would, of course, be identical to the guideline limits. See Attachment "E".

If, as proposed by EPA, no credit is given to oil and grease in coal pile runoff, but "full credit" is given to rain

into the ash pond, the FWCL's oil and grease are reduced to 15/18 mg/l. See Attachment "F". It should be noted that this is the most stringent set of oil and grease limitations that can be theoretically arrived at for BPJ, consistent with the guidelines.

Turning to TSS, an additional factor must be dealt with. Unlike the oil and grease situation, the guidelines regulate TSS from coal pile runoff on an instantaneous basis at 50 mg/l. The draft permit has set BPJ at 30/30 mg/l for TSS. While reserving judgment on this point, if it were assumed that 30/30 mg/l truly represented BPJ for coal pile runoff TSS at the Scholz Plant, then inclusion of flow attributable to rainfall directly into the ash pond at 30/100 mg/l guideline limits yields FWCL's of 30/93 mg/l. See Attachment "G".

If Flow-Weighted Concentration Limits
for the Ash Pond Discharge
Are Included in the Final Permit,
A Provision to Adjust the Limit
In the Event of Enforcement Should be included
In The Permit

FWCL's that are based upon historical rainfall events are at best guesses. In order to assure that Gulf is not subjected to enforcement for an FWCL that is based upon an event which is not representative of what actually occurred at the time of the supposed violation, we would suggest that an additional clause be added to the bottom of Page I-2 of the Permit. The additional condition would provide that monitored exceedences of the FWCL which otherwise show compliance with the unadjusted effluent guidelines limitation, would trigger the requirement that actual precipitation information for the period in question be examined and used to calculate an adjusted FWCL. In the case where the rainfall event during the preceding averaging period is less than the 10-year, 24-hour event, flows from the coal pile and directly into the ash pond would be adjusted accordingly. Where the rainfall event equals or exceeds the 10-year, 24-hour rain, the coal pile runoff resulting from rain over and above that event would be granted 30/100 mg/l guideline limits in order to assure that such flow is not limited in a fashion that is inconsistent with 40 CFR §423.12(b)(10). (See Attachment "A")

In sum, Gulf believes that the standard effluent guidelines limitation should apply to both oil and grease and TSS discharge from the ash pond. FWCL's are difficult, if not impossible, to apply to rainfall related discharges such as coal pile runoff. If, however, the Agency feels that it must

persist in developing FWCL's for this facility, we believe that it will be necessary to go through a more rigorous BPJ analysis for the coal pile runoff portion of the calculation if deviation from the effluent guidelines limitations is to be justified. In any event, Gulf should be given full credit for all rainfall into the ash pond in any such calculations.

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We request that the definition of "metal cleaning waste" as used in the draft NPDES permits for Gulf's Plants Crist and Lansing Smith be included in the Plant Scholz NPDES permit also. The inclusion of that definition would avoid any misinterpretations of the requirements for these wastes.

PAGE I-5

The TRC Compliance Deadline Should Be Extended

We request that the compliance deadline for the permit be extended as discussed in more detail in the comment on Page I-A, item (a) above.

PAGES II - 1 through 15

In September 1, 1983, 48 Fed.Reg. 39611, et seq., EPA noticed its final rulemaking on revisions to a number of EPA permit programs, one of which was the NPDES permitting program. These revisions to the NPDES program were the result of a settlement agreement between EPA and the Utility Water Act Group (UWAG). Three specific revisions that were noticed in the Federal Register substantially change the requirements of Part II of the Scholz permit. Part II deals specifically with "boilerplate" language or standard conditions for NPDES permits. Gulf requests that EPA change the "Duty to Mitigate", "Duty to Halt," and "Signatory Requirements" provisions of the Scholz permit as per the revisions noticed in the September 1, 1983 Federal Register.

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It was Gulf's understanding that the discharge of intake screen washwater and uncontaminated stormwater runoff without limitations or monitoring requirements would be approved in this section of the permit. The expired NPDES permit for this plant contained such language for intake screen washwater. Gulf assumes that the exclusion of this language was merely an oversight on EPA's part and therefore requests that it become a part of the permit as EPA had originally agreed to.

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CONCLUSION

Gulf appreciates this opportunity to submit further comment on the draft NPDES permit for its Scholz Plant. We hope that EPA will consider them carefully. If you feel that a meeting would be helpful to resolve our mutual concerns, please do not hesitate to contact Mr. Jim Vick, (904) 434-8311.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Bill Green".

William H. Green

Counsel for Gulf Power Company

WHG/gs
Enclosures

cc: Robert F. McGhee (w/o attachments)
Charles H. Kaplan (w/o attachments)

Permit No: FL0002283



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended
(33 U.S.C. 1251 et. seq; the "Act"),

Gulf Power Company
P. O. Box 1151
Pensacola, Florida 32520

is authorized to discharge from a facility located at

Scholz Electric Generating Plant
County 271 off U.S. 90
Chattahoochee, Florida 32324

to receiving waters named

Apalachicola River

in accordance with effluent limitations, monitoring requirements and other
conditions set forth in Parts I, II, and III hereof. The permit consists
of this cover sheet, Part I 5 pages, Part II ~~12~~¹⁵ pages and Part III 1 page.

This permit shall become effective on

This permit and the authorization to discharge shall expire at
midnight,

Date Signed

Paul J. Traina, Director
Water Management Division

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the term of this permit, the permittee is authorized to discharge from outfall(s) and serial number(s) 001 - Once through cooling water.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>	
	<u>30 Day Avg</u>	<u>Instantaneous</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow, M ³ /Day (MGD)	-	Maximum	Hourly	Pump Logs
Discharge Temperature °C(°F)	N/A	N/A	4/Day	Instantaneous
Intake Temperature °C(°F)	N/A	N/A	4/Day	Instantaneous
Heavy Metals	-	-	See Below	Grab
Total Residual Chlorine, mg/l (TRC)	-	0.2	1/Week	Multiple Grabs throughout periods of chlorine discharge
Free Available Chlorine, mg/l (FAC)		See Below	During periods of chlorination	
Time of Addition minutes/day	-	120	Daily	Logs

Monitoring for arsenic, chromium, copper, iron, lead and mercury 1/quarter, and cadmium, nickel, selenium and zinc 1/year.

FAC shall not exceed an average concentration of 0.2 mg/l and maximum instantaneous concentration of 0.5 mg/l
~~TRC shall not be discharged for more than 2 hours per day. The amount of chlorine added during each period of chlorination shall be reported to the Director, Water Management Division.~~

FAC shall not be discharged for more than 2 hours per day per unit.
 Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Intake temperture at the condenser inlet, discharge temperture and ~~TRC~~ *FAC* at the discharge structure and heavy metals 200 feet downstream of the confluence of the ash pond discharge and the cooling water discharge but prior to the confluence of the discharge canal and The Apalachicola River.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the term of this permit, the permittee is authorized to discharge from outfall(s) and serial number(s) 002: Ash Pond

Such discharges shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>	
	<u>Daily Avg</u>	<u>Daily Max</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow, M ³ /Day (MGD)	-	-	1/Week	Weir Elevation
→ Oil and Grease, mg/l	15	15 (18) ^{1/}	1/Month	Grab
→ Total Suspended Solids, mg/l	30	77 (93) ^{1/}	1/Month	Composite

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 1/month by grab.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Nearest accessible point after final treatment but prior to actual discharge or mixing with other waste streams.

1/ These are flow-weighted concentration limitations based upon the 10-year, 24-hour rainfall event. If discharge monitoring data show that these values are exceeded, but that the unadjusted effluent guideline values for ash transport water are not exceeded, then the permittee shall have the right to recalculate these limits for enforcement purposes, on the basis of actual precipitation data for the time period in question. In addition, any such recalculation shall exclude consideration of that portion of the coal pile runoff flow which results from precipitation above the amount predicted for the 10-year-24 hour event.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the term of this permit, the permittee is authorized to discharge from outfall(s) and serial number(s) 003: Metal Cleaning Wastes

Such discharges shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>			<u>MONITORING REQUIREMENTS</u>	
	<u>Daily Avg</u>	<u>Daily Max</u>	<u>Kg/Batch</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow, M ³ /Day (MGD)	-	-	-	Batch Total	Calculation
Oil and Grease, mg/l	15	20	1/	2/Batch	Grab
Total Copper, mg/l	1.0	1.0	1/	8/Batch	Grab
Total Iron, mg/l	1.0	1.0	1/	8/Batch	Grab

The pH shall not be less than n/a standard units nor greater than n/a standard units and shall be monitored 1/month by grab.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Nearest accessible point after metal cleaning waste treatment but prior to mixing with ash pond.

1/ The total quantity of each pollutant discharged shall be reported. In no case shall the quantity discharged exceed the quantity determined by multiplying the volume of the batch of metal cleaning waste generated times the concentrations noted above (i. e., 3.8 kg (8.3 lbs) of iron and copper; 57 kg (125 lbs) of oil and grease per million gallons of metal cleaning waste generated).

Metal cleaning wastes shall mean any chemical cleaning compounds, rinse waters, or any other waterborne residues derived from chemical cleaning any metal process equipment, but not limited to, boiler tube cleaning, boiler fireside cleaning and air preheater cleaning

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the term of this permit, the permittee is authorized to discharge from outfall(s) and serial number(s) 004: Sanitary Wastes

Such discharges shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>	
	<u>Daily Avg</u>	<u>Daily Max</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow, M ³ /Day (MGD)	-	-	Daily	Representative
Biochemical Oxygen Demand (5-day), mg/l	30	60	1/Quarter	Grab
Total Suspended Solids, mg/l	30	60	1/Quarter	Grab

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.

B. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

Operational Level Attained.....Effective Date of Permit
Total Residual Chlorine (0.2mg/l) November 19, 1985

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

PART II

STANDARD CONDITIONS FOR NPDES PERMITS

SECTION A. GENERAL CONDITIONS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

2. Penalties for Violations of Permit Conditions

Any person who violates a permit condition is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates permit conditions is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both.

3. Duty to Mitigate

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~~The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.~~

4. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, terminated or revoked for cause (as described in 40 CFR 122.62 et seq) including, but not limited to, the following:

- a. Violation of any terms or conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
- c. A change in any condition that requires either temporary interruption or elimination of the permitted discharge; or
- d. Information newly acquired by the Agency indicating the discharge poses a threat to human health or welfare.

1. Section A.3 - Duty to Mitigate should be amended as follows:

Duty to Mitigate. The permittee shall take all responsible steps to minimize or prevent any discharge in violation of this permit which has a substantial likelihood of adversely affecting human health or the environment.

If the permittee believes that any past or planned activity would be cause for modification or revocation and reissuance under 40 CFR 122.62, the permittee must report such information to the Permit Issuing Authority. The submittal of a new application may be required of the permittee. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

5. Toxic Pollutants

Notwithstanding Paragraph A-4, above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition and the permittee so notified.

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

6. Civil and Criminal Liability

Except as provided in permit conditions on "Bypassing" Section B, Paragraph B-3, nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

7. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

8. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Act.

9. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Onshore or Offshore Construction

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any waters of the United States.

11. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

2. Duty to Halt or Reduce Activity

*See
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②*
~~Upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.~~

3. Bypass of Treatment Facilities

a. Definitions

- (1) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility, which is not a designed or established operating mode for the facility.

2. Section B.2 - Duty to Halt or Reduce Activity should be amended as follows:

Need to Halt or Reduce not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the condition of this permit.

- (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass not exceeding limitations.

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Paragraphs c. and d. of this section.

c. Notice

- (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass; including an evaluation of the anticipated quality and effect of the bypass.
- (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section D, Paragraph D-8 (24-hour notice).

d. Prohibition of bypass.

- (1) Bypass is prohibited and the Permit Issuing Authority may take enforcement action against a permittee for bypass, unless:
 - (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (c) The permittee submitted notices as required under Paragraph c. of this section.
- (2) The Permit Issuing Authority may approve an anticipated bypass, after considering its adverse effects, if the Permit Issuing Authority determines that it will meet the three conditions listed above in Paragraph d.(1) of this section.

4. Removed Substances

This permit does not authorize discharge of solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters to waters of the United States unless specifically limited in Part I.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other wastestream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Permit Issuing Authority.

2. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to insure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than $\pm 10\%$ from the true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration and operation of acceptable flow measurement devices can be obtained from the following references:

1. "A Guide of Methods and Standards for the Measurement of Water Flow", U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 421, May 1975, 97 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD catalog No. C13.10:421.)
2. "Water Measurement Manual", U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by catalog No. I27.19/2:W29/2, Stock No. S/N 24003-0027.)

3. "Flow Measurement in Open Channels and Closed Conduits", U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Service (NTIS), Springfield, VA 22151. Order by NTIS No. PB-273 535/5ST.)
4. "NPDES Compliance Flow Measurement Manual", U.S. Environmental Protection Agency, Office of Water Enforcement, Publication MCD-77, September 1981, 135 pp. (Available from the General Services Administration (8BRC), Centralized Mailing Lists Services, Building 41, Denver Federal Center, Denver, CO 80225.)

3. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

4. Penalties for Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

5. Retention of Records

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by the Permit Issuing Authority at any time.

6. Record Contents

Records of monitoring information shall include: .

- a. The date, exact place, time and methods of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

7. Inspection and Entry

The permittee shall allow the Permit Issuing Authority, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable time any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

SECTION D. REPORTING REQUIREMENTS

1. Change in Discharge

Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new NPDES application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the Permit Issuing Authority of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

2. Anticipated Noncompliance

The permittee shall give advance notice to the Permit Issuing Authority of any planned change in the permitted facility or activity which may result in noncompliance with permit requirements. Any maintenance of facilities, which might necessitate unavoidable interruption of operation and degradation of effluent quality, shall be scheduled during noncritical water quality periods and carried out in a manner approved by the Permit Issuing Authority.

3. Transfer of Ownership or Control

A permit may be transferred to another party under the following conditions:

- a. The permittee notifies the Permit Issuing Authority of the proposed transfer;
- b. A written agreement is submitted to the Permit Issuing Authority containing the specific transfer date and acknowledgement that the existing permittee is responsible for violations up to that date and the new permittee liable thereafter.

Transfers are not effective if, within 30 days of receipt of proposal, the Permit Issuing Authority disagrees and notifies the current permittee and the new permittee of the intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed consistent with 40 CFR Part 122.

4. Monitoring Reports

See Part III of this permit.

5. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR). Such increased frequency shall also be indicated.

6. Averaging of Measurements

Calculations for limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Permit Issuing Authority in the permit.

7. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and probability of meeting the next scheduled requirement.

8. Twenty-Four Hour Reporting

The permittee shall orally report any noncompliance which may endanger health or the environment, within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times; and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Permit Issuing Authority may verbally waive the written report, on a case-by-case basis, when the oral report is made.

The following violations shall be included in the 24 hour report when they might endanger health or the environment:

- a. An unanticipated bypass which exceeds any effluent limitation in the permit.
- b. Any upset which exceeds any effluent limitation in the permit.

9. Other Noncompliance

The permittee shall report in narrative form, all instances of noncompliance not previously reported under Section D, Paragraphs D-2, D-4, D-7, and D-8 at the time monitoring reports are submitted. The reports shall contain the information listed in Paragraph D-8.

10. Changes in Discharges of Toxic Substances

The permittee shall notify the Permit Issuing Authority as soon as it knows or has reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge of any toxic substance(s) (listed at 40 CFR 122, Appendix D, Table II and III) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) One hundred micrograms per liter (100 ug/l);
 - (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

- (3) Five (5) times the maximum concentration value reported for that pollutant(s) in the permit application;
- b. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

11. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application should be submitted at least 180 days before the expiration date of this permit. The Permit Issuing Authority may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

Where EPA is the Permit Issuing Authority, the terms and conditions⁶ of this permit are automatically continued in accordance with 40 CFR 122.5, only where the permittee has submitted a timely and sufficient application for a renewal permit and the Permit Issuing Authority is unable through no fault of the permittee to issue a new permit before the expiration date.

12. Signatory Requirements

All applications, reports or information submitted to the Permit Issuing Authority shall be signed and certified.

- a. All permit applications shall be signed as follows:

- See 3
(1) & (2)
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- (1) For a corporation: ~~by a principal executive officer of at least the level of vice-president;~~
- (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
- (3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

- b. All reports required by the permit and other information requested by the Permit Issuing Authority shall be signed by a person described above or by a duly authorized representative only if:

- (1) The authorization is made in writing by a person described above.
- (2) The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position

of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

- (3) The written authorization is submitted to the Permit Issuing Authority.

- c. Certification. Any person signing a document under this section shall make the following certification:

See 3c
on
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~~"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."~~

13. Availability of Reports

Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Permit Issuing Authority. As required by the Act, permit applications, permits, and effluent data shall not be considered confidential.

14. Penalties for Falsification of Reports

The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

SECTION E. DEFINITIONS

1. Permit Issuing Authority

The Regional Administrator of EPA Region IV or his designee, unless at some time in the future the State receives authority to administer the NPDES program and assumes jurisdiction over the permit; at which time, the Director of the State program receiving authorization becomes the issuing authority.

3. Section D.12 - Signatory Requirements should be amended as follows:

Signatory Requirements:

(1) for a corporation by a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means: (1) a president, secretary, treasurer or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy - or decision-making functions for the corporation, or (2) the manager of one or more manufacturing production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding 25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or deleted to the manager in accordance with corporate procedures.

c. Certification. Any person signing a document under paragraphs (a) or (b) of this section shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under the direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

2. Act

"Act" means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) Public Law 92-500, as amended by Public Law 95-217 and Public Law 95-576, 33 U.S.C. 1251 et seq.

3. Mass/Day Measurements

- a. The "average monthly discharge" is defined as the total mass of all daily discharges sampled and/or measured during a calendar month on which daily discharges are sampled and measured, divided by the number of daily discharges sampled and/or measured during such month. It is, therefore, an arithmetic mean found by adding the weights of the pollutant found each day of the month and then dividing this sum by the number of days the tests were reported. This limitation is identified as "Daily Average" or "Monthly Average" in Part I of the permit and the average monthly discharge value is reported in the "Average" column under "Quantity" on the Discharge Monitoring Report (DMR).
- b. The "average weekly discharge" is defined as the total mass of all daily discharges sampled and/or measured during the calendar week on which daily discharges are sampled and/or measured during such week. It is, therefore, an arithmetic mean found by adding the weights of pollutants found each day of the week and then dividing this sum by the number of days the tests were reported. This limitation is identified as "Weekly Average" in Part I of the permit and the average weekly discharge value is reported in the "Maximum" column under "Quantity" on the DMR.
- c. The "maximum daily discharge" is the total mass (weight) of a pollutant discharged during a calendar day. If only one sample is taken during any calendar day the weight of pollutant calculated from it is the "maximum daily discharge". This limitation is identified as "Daily Maximum", in Part I of the permit and the highest such value recorded during the reporting period is reported in the "Maximum" column under "Quantity" on the DMR.
- d. The "average annual discharge" is defined as the total mass of all daily discharges sampled and/or measured during the calendar year on which daily discharges are sampled and/or measured during each week. It is, therefore, an arithmetic mean found by adding the weights of pollutants found each day of the year and then dividing this sum by the number of days the tests were reported. This limitation is defined as "Annual Average" in Part I of the permit and the average annual discharge value is reported in the "Average" column under "Quantity" on the DMR. The DMR for this report shall be submitted in January for the previous reporting calendar year.

4. Concentration Measurements

- a. The "average monthly concentration", other than for fecal coliform bacteria, is the sum of the concentrations of all daily discharges sampled and/or measured divided by the number of daily discharges sampled and/or measured during such month (arithmetic mean of the daily concentration values). The daily concentration value is equal to the concentration of a composite sample or in the case of grab samples is the arithmetic mean (weighted by flow value) of all the samples collected during that calendar day. The average monthly count for fecal coliform bacteria is the geometric mean of the counts for samples collected during a calendar month. This limitation is identified as "Monthly Average" or "Daily Average" under "Other Limits" in Part I of the permit and the average monthly concentration value is reported under the "Average" column under "Quality" on the DMR.
- b. The "average weekly concentration", other than for fecal coliform bacteria, is the sum of the concentrations of all daily discharges sampled and/or measured during a calendar week on which daily discharges are sampled and measured divided by the number of daily discharges sampled and/or measured during such week (arithmetic mean of the daily concentration values). The daily concentration value is equal to the concentration of a composite sample or in the case of grab samples is the arithmetic mean (weighted by flow value) of all the samples collected during that calendar day. The average weekly count for fecal coliform bacteria is the geometric mean of the counts for samples collected during a calendar week. This limitation is identified as "Weekly Average" under "Other Limits" in Part I of the permit and the average weekly concentration value is reported under the "Maximum" column under "Quality" on the DMR.
- c. The "maximum daily concentration" is the concentration of a pollutant discharge during a calendar day. It is identified as "Daily Maximum" under "Other Limits" in Part I of the permit and the highest such value recorded during the reporting period is reported under the "Maximum" column under "Quality" on the DMR.
- d. The "average annual concentration", other than for fecal coliform bacteria, is the sum of the concentrations of all daily discharges sampled and/or measured during a calendar year on which daily discharges are sampled and measured divided by the number of daily discharges sampled and/or measured during such year (arithmetic mean of the daily concentration values). The daily concentration value is equal to the concentration of a composite sample or in the case of grab samples is the arithmetic mean (weighted by flow value) of all the samples collected during that calendar day. The average yearly count for fecal coliform bacteria is the geometric mean of the counts for samples

collected during a calendar year. This limitation is identified as "Annual Average" under "Other Limits" in Part I of the permit and the average annual concentration value is reported under the "Average" column under "Quality" on the DMR. The DMR for this report shall be submitted in January for the previous reporting year.

5. Other Measurements

- a. The effluent flow expressed as M³/day (MGD) is the 24 hour average flow averaged monthly. It is the arithmetic mean of the total daily flows recorded during the calendar month. Where monitoring requirements for flow are specified in Part I of the permit the flow rate values are reported in the "Average" column under "Quantity" on the DMR.
- b. An "instantaneous flow measurement" is a measure of flow taken at the time of sampling, when both the sample and flow will be representative of the total discharge.
- c. Where monitoring requirements for pH, dissolved oxygen or fecal coliform bacteria are specified in Part I of the permit, the values are generally reported in the "Quality or Concentration" column on the DMR.

6. Types of Samples

- a. Composite Sample: A "composite sample" is a combination of not less than 8 influent or effluent portions, of at least 100 ml, collected over the full time period specified in Part I.A. The composite sample must be flow proportioned by either time interval between each aliquot or by volume as it relates to effluent flow at the time of sampling or total flow since collection of the previous aliquot. Aliquots may be collected manually or automatically.
- b. Grab Sample: A "grab sample" is a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the total discharge.

7. Calculation of Means

- a. Arithmetic Mean: The arithmetic mean of any set of values is the summation of the individual values divided by the number of individual values.
- b. Geometric Mean: The geometric mean of any set of values is the N^{th} root of the product of the individual values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered to be one (1).

- c. **Weighted by Flow Value:** Weighted by flow value means the summation of each concentration times its respective flow divided by the summation of the respective flows.

8. Calendar Day

A calendar day is defined as the period from midnight of one day until midnight of the next day. However, for purposes of this permit, any consecutive 24-hour period that reasonably represents the calendar day may be used for sampling.

9. Hazardous Substance

A hazardous substance means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act.

10. Toxic Pollutant

A toxic pollutant is any pollutant listed as toxic under Section 307(a)(1) of the Clean Water Act.

OTHER REQUIREMENTS

- A. There shall be no discharge of polychlorinated biphenyl compounds (PCB) such as those commonly used for transformer fluid.
- B. The company shall notify the Regional Administrator in writing not later than ninety (90) days prior to instituting use of any additional biocide or chemical other than chlorine, which may be toxic to aquatic life. Such notification shall include:
 - 1. Name and general composition of biocide or chemical.
 - 2. Frequency of use.
 - 3. Quantities used.
 - 4. EPA registration number.
- C. If an applicable standard or limitation is promulgated under sections 301(b)(2) (C) and (D), 304(b)(2), and 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in this permit or controls a pollutant not limited in this permit, this permit shall be promptly modified or revoked and reissued to conform to that effluent standard or limitation.
- D. The State of Florida Department of Environmental Regulation has certified the discharge(s) covered by this permit with conditions (Attached). Section 401 of the Act requires that conditions of certification shall become a condition of the permit. The monitoring and sampling shall be as indicated for those parameters included in the certification. Any effluent limits, and any additional requirements, specified in the attached state certification which are more stringent supersedes any less stringent effluent limits provided herein. During any time period in which the more stringent state certification effluent limits are stayed or inoperable, the effluent limits provided herein shall be in effect and fully enforceable. (Note: Certification will be attached prior to permit issuance).
- E. *Intake screen washwater can be discharged without limitations or monitoring requirements.*
- F. *Uncontaminated stormwater runoff can be discharged without limitations or monitoring requirements.*

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August 4, 1983

FILE NO.

DIRECT DIAL NO. 804 788-

J. William Jordan
Chief, NPDES Technical Programs Branch
Room 3220 in The Mall
Environmental Protection Agency (EN336)
401 M Street, S.W.
Washington, DC 20460

Dear Bill:

Now that the litigation over related steam electric effluent guidelines issues is settled, we have had the chance to turn to various permit implementation issues left open by the Agency when the steam electric guidelines were promulgated:

- 1) When should mass limits be used and when should concentration limits be used?
- 2) What waste stream flows should be used to compute flow-based mass limits for steam electric plants?
- 3) How should combined waste streams be handled in the steam electric context?

This letter sets out UWAG's views on those issues.

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As you know, UWAG and the EPA Headquarters staff had been exchanging views on these issues prior to the Agency's publication of final steam electric guidelines last fall. I am enclosing with this letter copies of my letter to you dated November 5, 1981 (enclosing a "Briefing Paper on Mass Limits in Electric Power Industry NPDES Permits"); my letter to you dated February 12, 1982, recapitulating the Agency staff's thinking at that point on these issues; your letter to me dated March 26, 1982, agreeing in general with my characterization, but noting that the approach outlined there was "quite tentative;" and my letter to Steve Schatzow and Bruce Barrett dated October 5, 1982, which summarizes our views on why mass limits are difficult to use for steam electric waste streams.

As these letters show, UWAG and the staff had narrowed the issues quite significantly. I enclose them because I gather it may be more fruitful to take up the discussion where we left off last spring, rather than to deal in detail with the recent "Draft Permit Guidance" document which the Agency recently prepared and distributed. Let me try to summarize where UWAG now stands, in light of the data and experience now available.

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When Mass Limits Should Be Used

For the reasons set out in the attached UWAG submissions,^{1/} it is apparent that mass limits are difficult to apply to steam electric waste streams that are (1) highly variable; (2) rainfall related (e.g., coal pile runoff or unregulated rainfall runoff streams); (3) combined with other waste streams; (4) controlled for only small quantities of a pollutant; or (5) dependent on fuel which may vary over time (e.g., the type of coal used may vary and will affect the flow of ash transport water). UWAG suggests that any EPA "Policy Statement" on this issue should list these factors, indicating clearly that mass limits are not applicable to waste streams with any one of these characteristics. Although permit writers will have to consider these characteristics for the particular plant for which they are issuing a permit, UWAG suggests that mass limits, if they are applied at all, would be most likely to be appropriate for some plants with small ash or other combined waste stream treatment ponds that also have no significant rainfall-related waste flows contributing to their discharges, a constant fuel type, and relatively constant flows.

^{1/} See UWAG letter dtd. Oct. 5, 1982, at 2-5; UWAG letter dtd. Nov. 5, 1981, Briefing Paper at 12-27.

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For all other steam electric generating stations, concentration limits alone should be presumptively applicable.

EPA's recent "Draft Permit Guidance" needs to be revised and clarified to accommodate these points. Attached to this letter is a proposed redraft of the "Draft Permit Guidance" that attempts to do so.

How to Compute Mass Limits -- The Flow Question

The steam electric guidelines provide for flow-based, not production-based, mass limits. Neither they, nor EPA's Consolidated Permit Rules^{2/} specify how to choose the appropriate flows for setting steam electric mass limits. It is UWAG's understanding that the Headquarters staff last spring was willing to use some reasonable measure of flow that would fall between the design basis flows UWAG had requested and maximum historical flows. Compare my letter dtd. Feb. 12, 1982, at 2 with Bill Jordan's letter dtd. Mar. 26, 1982, at 1. UWAG still believes that design-based flows should be used to set mass limits. If they are not, then UWAG strongly believes that the

^{2/} The NPDES Permit Rules speak only to the relevant production levels for setting production-based mass limits. 40 C.F.R. § 122.45(b) (April 1, 1983).

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proper "reasonable measure" of flow for setting fixed, numerical mass limits at a steam electric plant is "an engineering judgment as to maximum reasonably anticipated flows at full electrical generating load." The EPA guidance should also note expressly that (1) historical flows, while sometimes relevant to estimating maximum reasonably anticipated flows, are never dispositive; and (2) the type of flow information used to calculate mass limits must be carefully selected to be consistent with the type of limit being set.^{3/} We address each of these issues in turn.

First, mass limits are set in a permit to constrain future discharges. The relevant flow for setting such future limits is obviously a reasonable estimate of actual future flow. EPA's "actual production" rules recognize this.^{4/} UWAG

^{3/} Special consideration needs to be given to rainfall-related flows. As noted above, UWAG believes strongly that mass limits should not be used with rainfall-related streams (including ash or other treatment pond outfalls where rainfall-related streams significantly affect ash pond outflow). Rainfall-related flow is difficult to measure, and "wet weather" conditions are difficult to define for regulatory purposes.

^{4/} Those rules provide that mass limits will be calculated by use of "a reasonable measure of actual production of the facility." They suggest use of historical levels by way of example, apparently as a relatively objective method of estimating future "actual production." For new sources, where historical production levels are not available, the rules require expressly that "actual production shall be estimated using projected production." 40 C.F.R. § 122.45(b)(2)(April 1, 1983).

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believes that design flows must be used for the steam electric industry.^{5/} The only two references to this issue in any document associated with the new guidelines are both consistent with UWAG's position. The Final Development Document defines "flow rate" as

Usually expressed as liters/minute (gallons/minute) or liters/day (million gallons/day). Design flow rate is that used to size the wastewater treatment process. Peak flow rate is 1.5 to 2.5 times design and relates to the hydraulic flow limit and is specified for each plant. Flow rates can be mixed as batch and continuous where these two treatment modes are used on the same plant.^{6/}

And EPA's Response to Public Comments on the new guidelines includes the following public comment and EPA response on the flow issue as it relates to chlorine:

^{5/} Pollutant mass and waste stream flows cannot legally be limited unless some flexible method of taking power plant flow variability into account is found. See Ass'n of Pac. Fisheries v. EPA, 615 F.2d 794, 814 (9th Cir. 1980); Marathon Oil Corp. v. EPA, 554 F.2d 1253, 1269-70 (9th Cir. 1977); FMC Corp. v. Train, 539 F.2d 973, 980-81 (4th Cir. 1976). The method chosen must allow electric utility industry dischargers enough flow to supply the public with reliable electric service under all combinations of operating, weather and electric demand circumstances. Publicly-owned treatment works, which perform in a public service role similar to that of electric utilities, are allowed mass limitations "based on design flow" in EPA's Permit Regulations. 40 C.F.R. § 122.45(a)(April 1, 1983).

^{6/} Development Document, at 533 (emphasis added).

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COMMENT: We interpret mass limitations to be calculated by using two hours of flow per day. Will the flow value be based on maximum flow at the rated capacity of the plant, highest reported flow or the expected flow when chlorine is to be injected? If the highest reported flow value is to be used, how many years of flow data should be reviewed?

RESPONSE: The final regulation allows for either simultaneous or sequential chlorination of multi-unit plants. If a plant's operating procedure is to chlorinate sequentially, then the total hours per day of chlorine discharge would be two hours times the number of generating units discharging through the same point source. For simultaneous chlorination, the total hours per day of chlorine discharge is two. Flow values are generally rated pumping capacity as rated throughput of cooling water.^{7/}

Second, historical flows cannot be used as the sole proper measure of reasonably anticipated future flows for the steam electric industry. Historical flow levels can, if recorded,^{8/} be useful evidence in exercising judgment as to reasonably anticipated future flows -- but they can be only that.

^{7/} Response to Public Comments on Proposed Regulations of October 14, 1980 for the Steam Electric Power Industry, 40 C.F.R. Part 423 (November 1982), at 19-20 (emphasis added).

^{8/} Accurate historical flow records are simply not available in the utility industry for most ash pond discharges, let alone for the internal waste streams and rainfall runoff streams contributing to them. Utilities had no reason to record such flows in the past, in contrast to the incentive that most industries have had to record historical production levels, the basis used by EPA to set mass limits for most other industries.

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Past is not necessarily prologue for many reasons in the utility industry. For example, peak utility flows on either internal waste streams or ash pond discharges are a complex function of operating parameters (such as coal quality), weather (i.e., rainfall) and electrical demand conditions. No utility can guarantee that its historical flows, even if measured, are sufficient in and of themselves to enable it to perform its public service obligation under all future combinations of these conditions.

Use of historical flow levels below design flows imposes de facto constraints on flow. Flow constraints stemming from an "historical" measurement base are unrelated to treatability considerations and are illegal.^{9/} Further, they may force utilities to face the Hobson's choice of failing to meet their legal public service obligation to provide electricity on the one hand, or violating federal or state civil and

^{9/} See supra, n. 5. The guidelines themselves, of course, contain no flow constraints of any sort, express or implied, since they do not specify the flows to be used when setting mass limits. Thus, the only valid basis on which fixed, numerical technology-based mass limits could implicitly constrain flow is by BPJ determinations justifying such flow constraints as treatment related under the relevant statutory factors relating to, e.g., BAT. It is for this reason, among others, that UWAG has urged EPA in the past to interpret its guidelines to impose only "flexible" mass limits. UWAG letter dtd. Nov. 5, 1981; Briefing Paper at 27-28.

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criminal provisions by operating at flow levels leading to permit violations on the other.^{10/}

In short, the relevant, controlling issue in setting steam electric mass limits must be to estimate actual future flow reasonably. Reliance solely on historical data to accomplish this is unwise, unsafe, illegal and unjustified in the steam electric guideline context.

Third, the type of flow information used to calculate mass limits must be carefully selected to be consistent with the type of limit being set. In the case of the steam electric guidelines, for example, a "maximum for any one day" guideline

^{10/} This choice is particularly difficult now that citizens groups such as the New Jersey Public Interest Research Group are taking enforcement into their own hands under the citizen suit provisions of the Clean Water Act, and are demanding civil penalties even where the violations are only "technical." Electric utilities can no longer rely on the intelligent exercise of prosecutorial discretion by federal and state officials. They must instead be extremely careful in the permit limitations they accept in NPDES permits. UWAG believes liberal permit modifications should be allowed where compliance problems are due to mis-estimates of flow, and that anti-backsliding rules do not, and should not, block such modifications. Compare 40 C.F.R. § 122.44(1)(1) with id. § 122.62(a)(2)(April 1, 1983). But UWAG has no assurance that the Agency, much less Congress, will adopt a liberal permit modification policy, courts have not yet construed EPA's present anti-backsliding rules, and permit modifications would not insulate utilities from citizen suits for civil penalties for compliance problems before the modification occurred.

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limit should be set by multiplying the highest allowable average concentration over a 24-hour period by the highest average flow over a 24-hour period. Similarly, a maximum limit on the "average of daily values for 30 consecutive days" should be set by multiplying the highest allowable average of daily concentrations over a 30-day period by the highest average flow over a 30-day period.^{11/} EPA's analogous "actual production" rules explicitly acknowledge this principle in the "production level" context:

The time period of the measurement of production shall correspond to the time period of the calculated permit limitations; for example, monthly production shall be used to calculate average monthly discharge limitations. 40 C.F.R. § 122.45(b)(2)(April 1, 1983).

The Federal Register preamble to these "actual production" rules also states that "a one-month production figure should be used to calculate the average monthly discharge limitation, or a one-day production to calculate the maximum daily

^{11/} Such limits are defined at 40 C.F.R. Part 122.2 (April 1, 1983)(see the definitions of "maximum daily discharge limitation," "daily discharge," and "average monthly discharge limitation"). Given these definitions of the limitations and the corresponding concentrations specified in the steam electric effluent guidelines, there mathematically is only one flow value that can be used to set a particular mass limit -- the highest anticipated average flow calculated over the same period for which the limitation is being set.

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limitation." 45 Fed. Reg. 3,342, col. 2 (1980) (emphasis added).

In short, the flow used should be the highest anticipated average flow over the period for which the limitation is being set. Other methods for computing flows (such as use of average long-term or monthly average flows to calculate daily maximum mass limits) establish artificially low short-term mass limits which will be exceeded whenever flows are temporarily higher than their longer-term average, as they often are likely to be. Thus, violations would be incurred even though the treatment plant would be performing at the efficiency level anticipated in the effluent limitations guidelines, would be achieving the concentrations set out there, and would be operating at routine (though not long-term average) flow rates. There is simply no logic nor principle of fairness that will support setting mass limits in this fashion.^{12/}

^{12/} And in light of the current citizen suits and the possibility developing that Congress may impose broad anti-backsliding amendments to the Clean Water Act, such mass limits are simply unacceptable. The use of monthly average flows to determine daily maximum mass limits cannot be justified, as some regional permittees have attempted to do, by arguing that the flow variability between monthly and daily flows is somehow built into the three-fold differential between allowable daily and monthly concentrations in the steam electric guidelines. First, an examination of the 1974 Development Document and the 1982 Development Document shows that the differential is nowhere based on any attempted measure of the variability in the

(footnote continued)

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The "Draft Permit Guidance" must be changed in several regards, in light of this discussion. First, it nowhere sets out clearly what flows are to be used in what circumstances. In its Attachment providing a "sample derivation" of mass and concentration limits, it notes in passing that the flow for each waste stream in Table 2 "is determined by selecting the highest monthly average value of waste discharges for the last year or averaging the highest monthly values for the past five years (or a period which the plant operated without any significant expansion or modification)." It goes on to say that "Other reasonable representations of recent historical waste flow may be used and should be explained in the permit rationale." If these passages are intended to establish the general rule for calculating flows, they are unacceptable, because they contemplate only the use of historical flows and

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sampling data (although the Agency did attempt to use the differential between daily maximum and monthly average "mass-per-unit of production" set guideline limits in the case of certain other industries). Second, the sampling data lying behind both types of steam electric limits are in terms of concentration, not mass. The flows at the time of sampling are rarely noted or discussed. Thus, even if the differentials between the daily maximum and monthly average concentration levels in the steam electric guidelines were based on variability in the concentration data, they could not possibly have had any intelligible relationship to flow variability.

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they use monthly average flows to set daily maximum, as well as monthly average mass limits.^{13/}

How Should Combined Waste Streams Be Handled?

EPA's steam electric guidelines regulate separate waste streams rather than the combinations of waste streams most utilities have and should have. Thus, the guidelines contain no ash pond or other combined waste stream treatment facility limits, and the Agency must have a policy for applying the guidelines' individual waste stream limits to the actual combinations of wastes in the industry. This policy need not be complicated. There are only three important questions:

- 1) Which waste streams should be allowed to be combined, and why?
- 2) Of the waste streams that may be combined, which require either pretreatment or monitoring for compliance with standards for certain pollutants prior to combination, and why?

^{13/} The "Draft Permit Guidance" also does not address the special rules needed for estimating rainfall-related flows.

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- 3) What are the applicable limits that the combined waste stream treatment facility (e.g., an ash pond) should meet, and how should those limits be established?

These issues are related. For example, once the decision is made that a waste stream should, on balance, be allowed to be combined, the applicable combined limits for that stream must reinforce, not undermine, this basic decision.

Resolving these issues at particular plants can be complex and frequently involves site-specific considerations, given the varied circumstances found in the steam electric industry. EPA policy should recognize this and provide only broad guidance for permit issuers on the general principles applicable to their resolution. The guidance should not try to resolve with specificity all of the combined waste stream situations found in the industry. In many cases those closest to the situation can make the best, most common-sense decisions, as long as those decisions comport with the basic principles set out below.

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1. Which Waste Streams Should be Combined?

EPA has always encouraged the use of centralized treatment in the steam electric industry. As EPA's 1980 Steam Electric Development Document says:

"Consolidation of waste streams to a centralized treatment system is permitted and encouraged." (Dev. Doc. at 470).

The 1974 Preamble to the former steam electric guidelines similarly states that:

It is also recognized by EPA that, due to the economies of scale, combining similar waste streams for treatment to remove the same pollutants is generally less costly than separate treatment of these waste streams. The employment of cost saving alternatives in meeting the effluent limitations should not be discouraged. 39 Fed. Reg. 36,196 (Oct. 8, 1974).

The decision whether to combine waste streams -- e.g., to route them to a combined waste stream treatment facility -- turns on the exercise of sound engineering judgment, considering (1) the need for and benefits of combined treatment, considering the particular waste stream in question (e.g., unregulated rainfall runoff streams or cooling tower blowdown), (2) any disadvantage due to the resulting inherent dilution of some pollutants, and

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(3) the treatment efficacy and costs of other alternatives (e.g., rerouting unregulated rainfall runoff streams). The decision must, of course, be made for each waste stream as a whole. It cannot be made pollutant-by-pollutant, since the entire waste stream must either be combined or not.

2. Which Waste Streams or Pollutants Should be Pretreated Prior to Combination?

In the past there have been only two circumstances where EPA thought that certain waste streams should be monitored for certain pollutants prior to discharge to the combined waste stream treatment facility -- iron and copper (and perhaps TSS)^{14/} in chemical metal cleaning wastes routed to an ash pond; and priority pollutants, zinc and chromium in cooling tower blowdown.^{15/} EPA apparently believes in both circumstances that compliance would be difficult to monitor at the

^{14/} UWAG would like to discuss the staff's rationale if the Agency actually intends to regulate TSS in chemical metal cleaning wastes prior to discharge to an ash pond. While such an intent appears in Bill Jordan's letter of March 26, 1982, the Draft Guidance shows no sign of this (see page 5).

^{15/} Compare my letter dtd. Feb. 12, 1982, at 1-2 with Bill Jordan's letter dtd. March 26, 1982, at 1. Nevertheless, EPA's "Draft Permit Guidance" also would impose oil and grease limits and "adequate control of toxics" on chemical metal cleaning waste streams prior to combination.

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equivalency demonstrations. The Agency should also allow other companies to attempt to justify combined treatment of chemical metal cleaning waste streams in sedimentation ponds.

In other situations where internal limits are applied to chemical metal cleaning waste streams and/or cooling tower blowdown, both waste streams should, under the principles discussed above, be allowed to be discharged to the combined waste stream treatment facility without penalty, once compliance with the internal waste streams limits has been demonstrated. At that point they should be treated like other utility waste streams, and should have all other limits measured at the ash pond outfall with appropriate credit for both concentration and mass.

3. How Combined Waste Stream Treatment Facility Limits Should be Established.

There are at least two ways to set combined waste stream limits. First, the treatability of the combined waste streams in the ash pond or other combined treatment facility in question can be directly estimated or determined, and an appropriate limit set by BPJ determinations. This may prove to be the only legally valid way to proceed.^{17/} Alternatively, a

^{17/} See briefs of the industry parties in the Third Circuit litigation over the combined waste stream formula in the general pretreatment rules.

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ash pond outfall due to dilution. Any internal waste stream limits at power plants would have to be justified on a case-by-case basis in accordance with 40 C.F.R.

§ 122.45(i)(April 1, 1983). Moreover, internal limits on chemical metal cleaning wastestreams would be unjustified in at least two situations.

First, some companies have in the past successfully met the iron and copper limits on both chemical metal cleaning waste streams and boiler blowdown by chemical precipitation treatment in combined waste stream treatment facilities. Those companies should not be required to segregate chemical metal cleaning waste streams for separate treatment just because EPA has deleted the former iron and copper limits on boiler blowdown. Second, some companies have also demonstrated, through "ash pond equivalency demonstrations," that the iron and copper limits on chemical metal cleaning waste streams were being met by combined sedimentation treatment with other waste streams.^{16/} EPA should allow these companies to continue combined treatment under their successfully completed ash pond

^{16/} See the "Jordan Memorandum," attached to this letter, that allowed plants to make a "satisfactory demonstration" that a sedimentation pond's alkalinity and retention time will ensure adequate treatment of the iron and copper. Several such demonstrations have been successfully made in Region IV. See also Jordan letter dtd. March 26, 1982, at 2.

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mass or concentration limit for the combined waste stream treatment facility can be calculated through various formulae that effectively compute a flow-weighted average of the allowable pollutant levels in each contributing waste stream. Variations of these formulae may either give no allowance (or "credit") toward the flow-weighted average for unregulated pollutants in a combined stream; or "partial" or "full" credit for such pollutants. Whether a formula provides no credit, partial credit, or full credit for unregulated pollutants is critical, since it effectively determines whether particular waste streams may be combined. In the pretreatment context, the Agency has used a "partial credit" formula for both mass and concentration calculations.

Application of these principles in the utility context is much simpler than in the pretreatment context. Here, the only pollutants for which ash pond limits must be set are, in most cases, TSS, pH, oil and grease. Happily, in the case of every regulated waste stream but one, the applicable guidelines limits are identical. The one exception (the coal pile limit of 50 mg/L TSS instantaneous) should, for the reasons set out below, usually be given 30/100 TSS and 15/20 oil and grease limits like the other waste streams regulated for TSS when it is discharged to an ash pond.^{18/} As for those waste streams

^{18/} Note that the Agency's guidelines data base for selecting the 30/100 mg/L TSS limit and the 15/20 mg/L oil and grease

(footnote continued)

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that are unregulated for TSS, pH, and oil and grease, they are properly routed to a combined wastestream treatment facility for the reasons set out below. Once so routed, a "partial credit" approach (with full allowance for the normal TSS and oil and grease limits of 30/100 mg/L and 15/20 mg/L, respectively) should be applied on a BPJ basis.19/

4. Application of These Principles to Steam Electric Plants.

Sound engineering judgment calls for combining most utility waste streams under proper circumstances, although certain pollutant parameters for chemical metal cleaning wastes and cooling tower blowdown may, where justified under 40 C.F.R. § 122.45(i)(April 1, 1983), and with the exceptions noted above and below, need to be monitored prior to combination. Once-through cooling water would also normally not be appropriate for combination without prior monitoring or treatment.20/

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limit for the fly and bottom ash transport water waste stream consists in reality of ash pond effluent data under many operating, weather, and electric demand conditions.

19/ The existing combined waste stream rule in the steam electric guidelines governs only regulated pollutants in regulated waste streams. Thus, the appropriate treatment in the combined waste stream context of unregulated waste streams, and of unregulated pollutants in regulated waste streams, must be determined case-by-case through BPJ determinations.

20/ Even here, exceptions may be in order where other streams are combined with cooling water to buffer pH.

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Use of cooling tower blowdown streams to sluice ashes should be encouraged as a recycle/reuse technique; thus, its combination should be allowed without penalty in such cases.21/ Other combinations of cooling tower blowdown should be judged case-by-case under the principles set out above.

Chemical metal cleaning wastes are also usefully combined in some cases with other waste streams at various stages of their treatment.22/ While normally these wastes may be

21/ EPA has been quite explicit, as long ago as the 1974 Development Document, that there must be no penalty for recycle and reuse of waste streams:

In each case, the effluent limitations for a particular wastewater source are based on the wastewater flow emanating from that source, regardless of the subsequent reuse, recycling, or combination of the wastewater with other streams, and regardless of the source of the water used by that source. A discharger may find that the reuse of certain waste streams results in a less costly pollutant removal scheme than one employing no reuse due to the reduction in the final flow volume requiring treatment. Water reuse may also be employed to reduce the volume of water required by the plant or to reduce the cost of influent water treatment.

1974 Dev. Doc. at 417 (emphasis added); accord, id. at Figure A-X-1, Table A-X-1 (sample calculation of effluent limitations for a hypothetical plant); 39 Fed. Reg. 36,196, col. 3 (Oct. 8, 1974).

22/ Any EPA guidance must, of course, conform its treatment of iron and copper limits on non-chemical metal cleaning waste

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pretreated to assure compliance with the iron and copper limits (a practice the Agency can insist on, case-by-case, when the provisions of 40 C.F.R. § 122.45(i) are met), the old guidelines and first round permits essentially mandated that chemical metal cleaning waste streams be combined for iron and copper treatment with boiler blowdown^{23/} (or occasionally with other in-plant wastes). Chemical metal cleaning wastestreams have also been discharged directly to a combined waste stream treatment facility, as noted above, where "ash pond equivalency" demonstrations have been successfully made. Any Agency guidance must be sufficiently flexible to allow plants which have in the past combined chemical metal cleaning waste streams with boiler blowdown, or other low volume waste streams, to continue to do so. The Agency's guidance should also continue the effectiveness of any completed ash pond equivalency demonstration and allow other plants to attempt these demonstrations. Once treated for iron and copper, chemical metal cleaning waste streams are frequently (and should be allowed to be without penalty) discharged to combined waste

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streams with the new steam electric guidelines and their Preamble. The "Draft Permit Guidance" does not do so.

^{23/} Which also then had 1 mg/L iron and copper limits.

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stream treatment facilities for normal treatment of TSS, pH, oil and grease levels.

UWAG and the staff were in general agreement as of last spring on the treatment of cooling tower blowdown and chemical metal cleaning wastes (except, perhaps, with regard to pretreatment of TSS for chemical metal cleaning wastes and future application of "ash pond equivalency" demonstrations).^{24/} The real issues involving combined waste streams had largely been narrowed to the proper treatment of rainfall-related waste streams.

UWAG believes strongly that all rainfall-related waste streams, especially runoff which is unregulated by the effluent guidelines, should be allowed to be routed to the ash pond without penalty, for the reasons spelled out in my letter to you dtd. Feb. 12, 1982, at 3. Likewise, UWAG does not believe that rerouting runoff, or using baffles or weirs in ash ponds to minimize the impact of rainfall, will normally be warranted. See your letter dtd. March 26, 1982, at 2.

^{24/} The "Draft Permit Guidance" is considerably more restrictive. It seems to suggest, for example, that cooling tower blowdown should not be routed to an ash pond unless it is used as ash sluice water. And it seems to penalize routing of chemical metal cleaning wastes to the ash pond even where iron and copper limits are met before such combination.

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The premise behind Agency efforts to reduce the allowable concentration for TSS and oil and grease from an ash pond seems to be that storm water flows allow such concentration limits to be met by dilution. But storm water itself frequently contains TSS (which can profit from treatment in an ash pond and for which the net/gross rule requires a permittee to be given full credit in any case, unless coal pile runoff, material storage runoff, or construction area runoff is involved). And even where it contains less TSS than the 30/100 allowable TSS concentrations, rainfall runoff may sometimes result in higher, not lower, TSS concentrations at the ash pond outfall.^{25/}

UWAG has assembled all of the data it can find on the relationship between rainfall, ash pond flow, and TSS concentration and mass levels in ash pond effluent. This data is sketchy and may well be site specific. Nonetheless, at several ash ponds in Region IV with sizable rainfall runoff going to the ash pond, the data seem to show no discernible statistical relationship between rainfall on the one hand, and TSS

^{25/} Only in rare cases, determined by necessity on a case-by-case basis, would the resulting TSS concentrations be sufficiently higher to cause violations of the 30/100 mg/L limits. And even here, the nature of the remedial actions to be taken should be left up to the permittee.

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concentration or mass levels in the ash pond effluent on the other.^{26/} Even if it were true that TSS mass discharged from the ash pond goes up during and after it rains, which the available data do not seem to show, one could still not automatically conclude that the total TSS load to a receiving water body would increase. On the contrary, rainfall-related streams other than coal-pile runoff are not regulated in the steam electric guidelines; therefore, such non-coal pile runoff could have been discharged directly to navigable waters without treatment.^{27/} In contrast, non coal-pile runoff would be receiving some treatment for TSS in combined waste stream treatment facilities, such as ash ponds at power plants. Therefore, even if there were a slight increase in TSS discharges from an ash pond or other combined waste stream treatment facility during or after precipitation events, the total TSS loading to the receiving water may still decrease.

^{26/} We would be pleased to present and discuss this data with you at your convenience.

^{27/} Indeed, it is not clear that an increase in TSS mass from an ash pond during or after a precipitation event can properly be charged to rainfall runoff streams at all, since intake water TSS levels increase dramatically on many water bodies at such times and these increases should not normally be chargeable to the permittee under a proper application of the net/gross rule. In fact, utility ash ponds act as sediment traps to clean up many such water bodies under high TSS conditions, just as they do to clean up storm water flows routed to them.

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The foregoing arguments should normally also apply to coal pile runoff. Coal pile runoff is unregulated for the TSS during averaging times at issue in combined streams calculations (since it has a 50 mg/L instantaneous limit, rather than an average limit over some period of time). Thus, the utility combined waste stream rule does not apply to coal pile runoff and its treatment in the combined stream context must be determined by BPJ, just as is the treatment of other rainfall-related streams. The "partial credit" 30/100 TSS limits are appropriate when coal pile runoff is routed to an ash pond since the available ash pond effluent data in the guidelines record (some of which undoubtedly involved ash ponds with contributing coal pile runoff streams) shows that the appropriate limit for the level of treatment which coal pile runoff gets when it is routed to an ash pond is 30/100 mg/L. Further, the effluent guidelines establish no TSS limit for separately treated coal pile at flows above the 10-year, 24-hour level. But a 30/100 TSS limit for coal pile runoff routed to an ash pond would apply at all rainfall flows. For all of these reasons, coal pile runoff should usually be treated the same as other rainfall-related wastestreams in regard to TSS when combined in an ash pond.^{28/} This conclusion also applies to oil

^{28/} There may be some instances where the flow of coal pile runoff is so great in relation to the size and retention time

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and grease limits for coal pile runoff to an ash pond. There are no effluent guidelines limits on oil and grease for coal pile runoff, and the standard 15/20 mg/l limits for oil and grease reflect ash pond treatment capabilities for these pollutants. Any lower oil and grease limits would be unreasonable since, if the runoff were not routed to an ash pond, it could be discharged untreated for oil and grease.

UWAG remains firmly convinced that any discrimination against rainfall-related streams is unwarranted and unwise. Such streams (including ash pond outfalls, since they are in most cases partly rainfall related) should have only concentration, not mass limits, and the normal TSS and oil and grease concentrations should apply.^{29/} If any mass limits are used,

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of an ash pond, that it would be inappropriate to apply the normal TSS limits of 30 and 100 mg/l. Under these unusual circumstances, it might be appropriate to establish some flow weighted concentration limits on coal pile runoff to an ash pond which are less than the standard guidelines limits. These flow-weighted concentration limits on TSS would always have to be set on a BPJ basis, will vary from plant-to-plant, and should only be imposed in unusual circumstances (e.g., during a 10-year/24-hour precipitation event which is likely to 'swamp' a small pond).

^{29/} One way to do so and still retain mass limits on ash ponds during dry weather conditions is to use only concentration limits at ash pond effluent flow levels above those used to set any ash pond mass limits, as UWAG suggested in my letter to Bill Jordan dtd. Feb. 12, 1982, at 3-5. Where concentration

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they should be "flexible" mass limits (of the sort proposed by UWAG in its Nov. 5, 1981, Briefing Paper at 27-28).^{30/} Any fixed numerical mass limits for storm water-influenced waste flows would have to be set on the basis of the maximum anticipated 24-hour flow for daily maximum limits, and the maximum anticipated 30-day flow if an attempt is made to set daily average limits for such streams based on 30 consecutive daily values.

UWAG is strongly of the view that complex regulatory action on rainfall-related streams is needless and provides little, if any, environmental protection. Unless there are good reasons to the contrary, storm water flows should be allowed to be treated in the ash pond. The best measures of ash pond treatment efficiency under all operating, weather and electric demand conditions are the standard utility TSS and oil and grease concentration limits set out in the

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based limits are applied and values less than the normal TSS and oil and grease limits are applied, permittees are unfairly penalized by use of maximum rainfall flows during dry conditions or less than maximum rainfall events.

^{30/} Even these limits would involve measuring rainfall runoff flow, a difficult and doubtful process at best.

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guidelines and derived from ash pond effluent data representative of such conditions.

Sincerely,

Turner T. Smith / bcm

Turner T. Smith, Jr.

cc: Michael W. Steinberg
Dennis Ruddy
Gail Cooper
William Telliard
Steven Schatzow

Scholz Ash Pond Effluent Limits Calculations1/ Oil & Grease

	Waste Stream	Flow (MGD)	Concentration (mg/l)		Mass (lbs.)	
			30 day	1 day	30 day	1 day
1.	Ash Sluice	.543	15	20	68	91
2.	Low volume waste, metal cleaning etc.	_____	15	20	90	120
			_____	_____	_____	_____
	Total 1 & 2	1.263			158	211
3.	<u>Coal Pile Runoff</u> ^{2/}					
	30 day flow	0.02	0	--	0	-
	1 day flow	0.60	-	0	-	0
	<u>Total Flow 1, 2 & 3</u>		<u>Allowable Concentration</u>		<u>Total Mass 1,2&3</u>	
	30 day	1,283	14.8		158	-
	1 day	1.863		13.6	-	211
	EPA Used:		15 mg/l	15 mg/l		

1/ This calculation was the one used by EPA to determine the flow-weighted concentration for Oil and Grease. A conversion factor of 8.34 was used to convert mg/l to pounds.

2/ The flows for coal pile runoff were calculated using the 10-year, 24-hour rainfall event of 7.5 inches over an area of 5.9 acres with a runoff coefficient of 0.5.

Scholz Ash Pond Effluent Limits Calculations1/ Total Suspended Solids

	Waste Stream	Flow (MGD)	Concentration (mg/l)		Mass (lbs.)	
			30 day	1 day	30 day	1 day
1.	Ash Sluice	.543	30	100	136	453
2.	Low volume waste, metal cleaning etc.	.720	30	100	180	600
		_____	—	—	—	—
	Total 1&2	1.263			316	1053
3.	<u>Coal Pile Runoff^{2/}</u>					
	30 day	0.02	30	-	5.0	-
	1 day	0.60	-	30	-	150
	<u>Total Flow 1,2&3</u>		<u>Allowable Concentrations</u>		<u>Total Mass 1,2&3</u>	
	30 day	1.283	30	-	321	-
	1 day	1.863	-	77	-	1203

1/ This calculation was the one used by EPA to determine the flow-weighted concentration limits for Total Suspended Solids. A conversion factor of 8.34 was used to convert mg/l to pounds.

2/ The flows for the coal pile runoff were calculated using the 10 year, 24 hour rainfall event of 7.5 inches over an area of 5.9 acres with a runoff coefficient of 0.5.

Scholz Ash Pond Effluent Limits Calculations1/ Oil & Grease

	Waste Stream	Flow (MGD)	Concentration (mg/l)		Mass (lbs.)	
			30 day	1 day	30 day	1 day
1.	Ash Sluice	.543	15	20	68	91
2.	Low volume waste, metal cleaning etc.	.720	15	20	90	120
	Total 1 & 2	1.263	-	-	158	211
3.	<u>Coal Pile Runoff</u> ^{2/}					
	30 day flow	0.02	15	-	2.5	
	1 day flow	0.60	-	20		100
4.	<u>Ash Pond Rainfall</u> ^{3/}					
	30 day flow	0.14	15	-	17.5	
	1 day flow	4.10	-	20		684
<u>Total Flow 1, 2, 3 & 4</u>			<u>Allowable Concentration</u>		<u>Total Mass</u>	
					<u>1, 2, 3 & 4</u>	
	30 day	1.423	15 ¹³⁵	-	178	-
	1 day	5.963	-	20 ⁶³	-	995

1/ This calculation by Gulf assumes full credit for Oil and Grease concentration in the coal pile runoff and in the ash pond rainfall. A conversion factor of 8.34 was used to convert mg/l to pounds.

2/ & 3/ The flows for coal pile runoff and rainfall falling into the ash pond were calculated using the 10 year, 24 hour rainfall event of 7.5 inches falling over an area of 5.9 acres for the coal pile and an area of 40.3 acres for the ash pond. A coefficient of runoff of 0.5 was assumed for both areas.

Scholz Ash Pond Effluent Limits Calculations1/ Oil & Grease

	Waste Stream	Flow (MGD)	Concentration (mg/l)		Mass (lbs.)	
			30 day	1 day	30 day	1 day
1.	Ash Sluice	.543	15	20	68	91
2.	Low Volume waste, metal cleaning etc.	.720	15	20	90	120
	Total 1 & 2	1.263			158	211
3.	<u>Coal Pile Runoff</u> ^{2/}					
	30 day flow	0.02	0	-	0	-
	1 day flow	0.60	-	0	-	0
4.	<u>Ash Pond Rainfall</u> ^{3/}					
	30 day flow	0.14	15	-	17.5	-
	1 day flow	4.10	-	20	-	684
<u>Total Flow 1, 2, 3 & 4</u>			<u>Allowable Concentration</u>		<u>Total Mass 1,2,3 & 4</u>	
	30 day	1.423	15 14.8	-	175.5	-
	1 day	5.963	-	18.0 20	-	895
	Use: 15 mg/l		18 mg/l			

1/ This calculation by Gulf assumes no credit for Oil and Grease concentration in the coal pile runoff portion and full credit for the ash pond rainfall portion. A conversion factor of 8.34 was used to convert mg/l to pounds.

2/ & 3/ The flows for coal pile runoff and rainfall falling into the ash pond were calculated using the 10-year, 24 hour rainfall event of 7.5 inches falling over an area of 5.9 acres for the coal pile and an area of 40.3 acres for the ash pond. A coefficient of runoff of 0.5 was assumed for both areas.

Scholz Ash Pond Effluent Limits Calculations1/ Total Suspended Solids

	Waste Stream	Flow (MGD)	Concentration (mg/l)		Mass (lbs.)	
			30 day	1 day	30 day	1 day
1.	Ash Sluice	.543	30	100	136	453
2.	Low Volume waste, metal cleaning waste, etc.	.742	30	100	180	600
	Total 1&2	1.263			316	1053
3.	<u>Coal Pile Runoff</u> ^{2/}					
	30 day	0.02	30	-	5.0	-
	1 day	0.60	-	30	-	150
4.	<u>Ash Pond Rainfall</u> ^{3/}					
	30 day	0.14	30	-	35	-
	1 day	4.10	-	100	-	3419
	<u>Total Flow 1,2,3&4</u>		<u>Allowable Concentration</u>		<u>Total Mass 1,2,3&4</u>	
	30 day	1.423	30	-	356	-
	1 day	5.963	-	93 90	-	4622

1/ This calculation by Gulf assumes a full credit for Total Suspended Solids with regard to flows occurring from rainfall actually falling into the 40.3 acre ash pond at Scholz Plant. A conversion factor of 8.34 was used to convert mg/l to pounds.

2/ & 3/ The flows for coal pile runoff and rainfall falling into the ash pond were calculated using the 10 year, 24 hour rainfall event of 7.5 inches falling over an area of 5.9 acres and 40.3 acres respectively. A coefficient of runoff of 0.5 was assumed for both areas.