

STATE OF WEST VIRGINIA

PRELIMINARY PERFORMANCE REVIEW OF THE

Division of Water Resources

**Fecal Coliform Compliance Assessment Not Adequate for
Major Permit Holders**

**The DWR Does Not Review Sufficient
Information on Minor Permit Holders to Ensure
that they are in Compliance with Permit Limitations**

**OFFICE OF LEGISLATIVE AUDITOR
Performance Evaluation and Research Division
Building 1, Room W-314
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January 2002

PE001-30-229

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John Sylvia
Director

January 6, 2002

The Honorable Edwin J. Bowman
State Senate
129 West Circle Drive
Weirton, West Virginia 26062

The Honorable Vicki V. Douglas
House of Delegates
Building 1, Room E-213
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305-0470

Dear Chairs:

Pursuant to the West Virginia Sunset Law, we are transmitting a Preliminary Performance Review of the *Division of Water Resources*, which will be presented to the Joint Committee on Government Operations on Sunday, January 6, 2002. The issues covered herein are "Fecal Coliform Compliance Assessment Not Adequate for Major Permit Holders;" and "The DWR Does Not Review Sufficient Information on Minor Permit Holders to Ensure that they are in Compliance with Permit Limitations."

We transmitted a draft copy of the report to the Division of Water Resources on December 27, 2001. We conducted an Exit Conference with the Division of Water Resources on January 2, 2002. We received the agency response on January 4, 2002.

Let me know if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "John Sylvia".

John Sylvia

JS/wsc

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Executive Summary

According to the OWR, *“The Division of Water Resources’ mission is to preserve the physical, chemical and biological integrity of surface and ground waters, considering nature and the health, safety, recreational, and economic needs of humanity. The Division of Water Resources strives to meet its mission through the implementation of programs controlling surface water pollution caused by industrial and municipal discharges.*

One of the key ways that the OWR preserves the quality and integrity of the waters of the State is through the issuance of National Pollutant Discharge Elimination System (NPDES) permits. Before discharging pollutants into State waters, or engaging in activities which may affect the quality of State waters, all persons must obtain a NPDES permit. According to a recent report by the Federal Office of the Inspector General, the two ways that a regulating entity know information about the discharge of a permit holder are inspections and Discharge monitoring reports (DMR).

Issue 1: Fecal Coliform Compliance Assessment Not Adequate for Major Permit Holders.

With respect to major facilities the DWR has a process in place in conjunction with the EPA that major facilities are regulated for various parameter violations. According to the DWR, DMRs for major facilities, all minor municipal sewage treatment facilities, and all privately owned individual sewage facilities are received by the DWR monthly and entered into an electronic database.

For major facilities and some minor treatment facilities which receive federal funding (approximately 90 facilities), DWR is required to submit DMR data to the EPA’s electronic database (called the PCS) to generate a report called the Quaterly Non-Compliance Report (QNCR). The QNCR indicates facilities (as indicated above) which discharge pollutants in excess of permit limitations. According to the DWR, the EPA expects the DWR to have initiated enforcement activity on a permittee once a facility has appeared on the QNCR for two consecutive quarters. If the violations are not resolved, the facility is then placed on the EPA’s exception list.

There is evidence that enforcement actions are taken by DWR to correct violations of major facilities. According to the DWR, *“Under an agreement between the Division of Water Resources and Environmental Enforcement, the primary responsibility of the Permits Section in handling DMR violations is for initiating required enforcement action to keep facilities from being listed on EPA’s exception list.”* Over the course of the last two years, there have only been seven different major facilities listed on the exception list. Of those seven, none have resulted in EPA intervention.

One weakness, however, is that the compliance assessment process does not detect Fecal Coliform. The DWR was unaware of this deficiency prior to our review. Given the fact that 35% of all streams sampled by the DEP’s Watershed assessment program show excessive levels of fecal coliform, and that major facilities are responsible for over 150 million gallons of discharge a day,

it is in the State's best interest that the DWR develop a program which will alert the DWR to fecal coliform violations by major facilities.

Issue 2: The DWR Does Not Review Sufficient Information on Minor Permit Holders to Ensure that they are in Compliance with Permit Limitations.

With respect to minor facilities, many minor facilities do not submit DMRs as required. Of the 129 minor facilities reviewed, 62% (80 permittees) were in non-compliance with the reporting requirement. Furthermore, of the 80 permittees in non-compliance, 36 permittees (30% of all sampled permittees) had no DMR's in the file, and 47 permittees (36% of all sampled permittees) had not submitted a DMR in the past three years.

However, despite the fact that many permit files lacked compliance history for effluent limitations, each of the minor facilities in the sample had their permits renewed by the DWR. Given that minor facilities comprise up to 80 million gallons a day of permitted discharges in the state, significant water quality violations may be occurring. Although DWR is diligent in notifying permittees and voiding over 100 permits each year for failure to pay the annual permit fee, it typically does not notify permittees when they have not submitted DMRs, nor does it predicate the renewal of a permit on the submission of DMRs.

Review Objective, Scope and Methodology

The preliminary performance review of the Division of Water Resources (DWR) is required and authorized by the West Virginia Sunset Law, Chapter 4, Article 10, Section 11 of the West Virginia *Code*, as amended. According to the DWR, "*The Division of Water Resources' mission is to preserve the physical, chemical and biological integrity of surface and ground waters, considering nature and the health, safety, recreational, and economic needs of humanity.*"

The objective of this review was to determine if the division was monitoring the discharge of NPDES permit holders through the use of Discharge Monitoring Reports (DMRs). The scope of this report examined the DWR's effectiveness for the time period of 1998 to present.

The methodology included a review of randomly sampled NPDES permit files. Interviews were held with members of the Division of Water Resources, Environmental Enforcement Office, as well as the Environmental Quality Board. A review of Office of Inspector General audits and a review of Environmental Protection Agency guidance documents was also conducted. This performance evaluation complied with Generally Accepted Government Auditing Standards.

Issue 1: Fecal Coliform Compliance Assessment Is Inadequate for Major Permit Holders.

According to the DWR, *“The Division of Water Resources' mission is to preserve the physical, chemical and biological integrity of surface and ground waters, considering nature and the health, safety, recreational, and economic needs of humanity.”* One of the key ways that the DWR preserves the quality and integrity of the waters of the State is through the issuance of National Pollutant Discharge Elimination System (NPDES) permits. Before discharging pollutants into State waters, or engaging in activities which may affect the quality of State waters, all persons must obtain a NPDES permit. Permitted facilities are divided into two distinct groups, major and minor facilities.

With respect to major facilities:

- DWR has a process in place in conjunction with the EPA that major facilities are monitored for various parameter violations.
- There is evidence that enforcement actions are taken by DWR to correct violations of major facilities.
- One weakness, however, is that the compliance assessment process does not detect Fecal Coliform violations. The DWR was unaware of this deficiency prior to our review.

Permit Types

The DWR issues two distinct categories of NPDES permits:

- Individual permits - a permit specifically tailored for an individual facility.
- General permits - developed and issued by a permitting authority to cover multiple facilities within a specific category.

Individual permits are further classified as either **major** or **minor** facilities. The DWR regulates 687 individual permittees and 3,574 general permittees. Table 1 shows the breakdown between individual and general as well as major and minor permittees.

| Table 1 WV/NPDES Permits* | | |
|------------------------------|------------------|------------------|
| Category | Major Facilities | Minor Facilities |
| Individual | 92 | 595 |
| General | N/A | 3,574 |
| Total | 92 | 4,169 |
| *Current as of October, 2001 | | |

According to the EPA, all NPDES permits should contain a provision to allow for monitoring of a facility's discharge.. According to the EPA NPDES Permit Writers' Manual, monitoring and reporting requirements are *“Used to characterize wastestreams and receiving waters, evaluate wastewater treatment efficiency, and determine compliance with permit conditions.”*

All permittees are required by federal regulation to submit reports to the regulating agency at least annually. According to the EPA Permit Writer's Manual, *“However, the NPDES regulation states that monitoring frequency and reporting should be dependent on the nature and effect of the discharge/sludge use or disposal. Thus, the permit writer can require more frequent than annual reporting.”* Obviously, the more likely that the discharge has a negative consequential impact, the more frequent the reporting requirements. The DWR requires major permittees to submit Discharge Monitoring Reports (DMR) monthly. Minor permit holders are required to submit monitoring reports either monthly, quarterly, semi-annually, annually, or one time.

DWR Reviews Major Facilities for Compliance with Most Parameters

According to the DWR, DMRs for major facilities, all minor municipal sewage treatment facilities, and all privately owned individual sewage facilities are received by the DWR monthly and entered into an electronic database. For major facilities and some minor treatment facilities which receive federal funding (approximately 90 POTW facilities), DWR is required to submit DMR data to the EPA's electronic database (called the PCS) to generate a report called the Quarterly Non-Compliance Report (QNCR). The QNCR indicates facilities (as indicated above) which discharge pollutants in excess of permit limitations. According to the DWR, the EPA expects the DWR to have initiated enforcement activity on a permittee once a facility has appeared on the QNCR for two consecutive quarters. If the violations are not resolved, the facility is then placed on the EPA's exception list.

According to the DWR, *“Under an agreement between the Division of Water Resources and Environmental Enforcement, the primary responsibility of the Permits Section in handling DMR violations is for initiating required enforcement action to keep facilities from being listed on EPA's exception list.”* Over the course of the last two years, there have only been seven different major facilities listed on the exception list. **Of those seven, none have resulted in EPA intervention.**

Fecal Coliform Violations Are Not Flagged by the QNCR Tracking System

In order to determine if the DWR is acting on permit violations, the Legislative Auditor's Office reviewed a list of all DMR violations for a three year period and submitted to the DWR and Environmental Enforcement a list of 10 permittees who had established a trend of non-compliance. According to the DWR, no enforcement action had been initiated for three of the ten facilities. Table 2 shows the three permittees, the nature of the violations, as well as the dates of the violations.

| Table 2 Facilities with Trend Non-Compliance and No DWR Enforcement Action | | |
|-------------------------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------------------------|
| Permittee | Parameter which Exceeded Permit Limits | Dates of Non-Compliance |
| Union PSD | Fecal Coliform | 7/99, 12/99, 1/00, 10/00, 11/00, 2/01, 5/01, 6/01, 7/01, 8/01 |
| City of Welch | Fecal Coliform | 2/99, 3/99, 10/99, 11/99, 5/00, 7/00, 8/00, 1/01, 3/01, 4/01, 6/01, 5/01, 7/01 |
| City of White Sulphur Springs | Fecal Coliform | 8/99, 9/99, 10/99, 11/99, 2/00, 3/00, 5/00, 6/00, 7/00, 8/00, 9/00, 8/01, 9/01 |

The above violations were not known to DWR. Upon further inquiry, it was discovered that certain parameters (namely fecal coliform and pH) are not retrieved by the EPA's QNCR program. According to the Director of the Enforcement Office,

[Permitting] advised me [they] had researched the list, which I forwarded to [them], and learned in [their] research that neither fecal coliform nor pH are considered in the QNCR retrieval. This was news to [Permitting], as well as myself.

Essentially, since violations of fecal coliform and pH are not retrieved by the QNCR system, major facilities could be significantly beyond their permit limitations for these two parameters without DWR being aware of the violations. According to the DWR,

Since the QNCR does not flag pH and fecal coliform violations, we would not necessarily be aware of them unless we either routinely reviewed the DMRs (which, as previously stated, we do not) or if we were dealing with a problem at the facility, reviewing inspection reports and/or considering enforcement action. Such violations would then be incorporated in any action we initiated. For the three facilities you inquired of, we were not aware of the reported fecal coliform violations.

Effects of Excessive Fecal Coliform Discharges

Fecal Coliform in and of itself does not represent a threat to human health. However, harmful microbes and pathogens that are harmful to human health generally accompany the presence of fecal coliform. Excessive Fecal Coliform is tracked because it is an indicator of the possible presence of harmful microbes in water bodies and therefore may indicate a potential health hazard. According to the EPA,

*Fecal Coliform and E coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. **Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms.***

For these reasons, the Environmental Quality Board (the regulatory board charged with establishing water quality standards) has established standards for the concentration of fecal coliform allowable for any body of water. According to the DEP;

*The water quality standards state that for primary contact recreation (e.g., swimming, boating, fishing) the concentration of fecal coliform bacteria is not to exceed 400 colonies/100 ml in more than 10% of all samples taken during a month. Restated simply, **water with a count greater than 400 is generally considered to be unsafe.***

For the three facilities listed above, all of the violations were several times higher than 400 colonies/100 ml. These numbers are even more concerning given the fact that these three facilities are each permitted to discharge more than a million gallons of discharge a day. Table 3 below shows the highest, lowest, and median reports of fecal coliform for the above reported violations, as well as the discharge that each facility is permitted to discharge.

| Facility | Highest Reported Violation | Lowest Reported Violation | Median Violation | Permitted Discharge (Millions of Gallons Per Day) |
|-------------------------------|----------------------------|---------------------------|------------------|---------------------------------------------------|
| Union PSD | 21,000 | 600 | 1,700 | 2.5 |
| City of Welch | 720,000 | 490 | 3,700 | 1.12 |
| City of White Sulphur Springs | 18,600 | 410 | 1,500 | 1.6 |

Of the 92 major facilities, 46 facilities reported no fecal coliform violations during the last three years. The remaining 46 major facilities reported a total of 295 fecal coliform violations, none of which would have appeared on the QNCR. Table 4 below shows the facilities with multiple fecal coliform violations.

| <p align="center">Table 4 Fecal Coliform Violations by Major Facilities, 1/99 - 11/01</p> | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------------|
| Facility | Total Number of Fecal Coliform Violations | County |
| Charles Town, City of | 18 | Jefferson |
| Charleston, City of | 29 | Kanawha |
| Huntington, City of | 11 | Cabell |
| Koppers Industries Inc. | 11 | Brooke |
| Monongahela Power Co.* | 14 | Harrison, Pleasants, Marion, Monongalia, Preston |
| Parkersburg Utility Bd. | 11 | Wood |
| Quala Systems Inc. | 11 | Kanawha |
| Summersville, Town of | 9 | Nicholas |
| Union, PSD | 10 | Kanawha |
| Welch, City of | 13 | McDowell |
| White Sulphur Springs, City of | 13 | Greenbrier |
| <p><i>*Monongahela Power Company operates six different facilities in five counties and violations are distributed among the six facilities.</i></p> | | |

Conclusion

DMRs for major facilities are received monthly by the DWR. This information is used to develop the QNCR which basically serves as a guidance tool for DEP's enforcement action for major facilities with regard to effluent limitation violations. Most violations are observed and acted upon in a timely manner. However, since the QNCR does not sample Fecal Coliform, many major facilities could be releasing excess levels of fecal coliform into the state's surface waters. The DEP's Watershed assessment program shows that 35% of all streams sampled had excessive levels of fecal coliform. To avoid worsening this condition given that major facilities are responsible for over 150 million gallons of discharge a day, it is in the State's best interest that the DWR develop a program which will alert the DWR to fecal coliform violations by major facilities.

Recommendation 1:

The DWR should develop a program which will analyze DMR data and provide the DWR with quarterly violators of the fecal coliform standard.

Issue 2: The DWR Does Not Review Sufficient Information on Minor Permit Holders to Ensure that they are in Compliance with Permit Limitations.

DMRs for minor facilities are required to be sent to the DWR as well as to regional enforcement staff. However, the requirement to send DMRs for minor facilities to enforcement staff has only existed for the last few years. The EPA encourages, but does not require States to enter DMR data for minor facilities into the electronic database. However, DMR data for minor Public Owned Treatment Works (POTWs) and all minor privately owned sewage facilities is entered into DWR's database and DMR information for 90 POTWs which receive federal funding is sampled by the PCS system (as discussed in the previous issue).

With respect to minor facilities:

- Many minor facilities do not submit DMRs as required.
- DWR does not vigorously pursue DMR's from those minor facilities that do not submit them.
- DWR renews minor facility permits without knowing if they have been in compliance with effluent discharge limitations from their previous permit.
- Given that minor facilities comprise up to 80 million gallons a day of permitted discharges in the state, significant water quality violations may be occurring.
- DWR is diligent in notifying permittees and voiding over 100 permits each year for failure to pay the annual permit fee, yet it does not currently notify permittees when they have not submitted DMRs, nor does it predicate the renewal of a permit on the submission of DMRs.

Many Minor Facilities Do Not Submit DMRs

Failure to submit self monitoring reports by minor facilities was recently identified as a national problem in an August 2001 report by the National State Auditor's Association. Given the importance of self monitoring reports and the documented problems that other states have with report submittal, the Legislative Auditor's Office conducted a sample of 129 minor facilities to determine compliance with DMR submittal. Records were examined at the DWR office and not regional enforcement offices. However, according to both DWR Permitting and Enforcement, it is unlikely that DMRs would be submitted at the regional office and not the central DWR office.

According to the DWR, a file for a permittee should contain DMR information for the current permit cycle and for the previous year. Additional DMR data have usually been microfiched. Therefore, the Legislative Auditor's Office considered a permittee to be in compliance with the DMR submittal requirement if the case record contained all DMR's for the current permit cycle or for the previous three years whenever a permit has been active for longer than three years. Of the 129 minor facilities reviewed, 62% (80 permittees) were in non-compliance with the reporting requirement. Furthermore, of the 80 permittees in non-compliance, 36 permittees (30% of all sampled

permittees) had no DMR's in the file, and 47 permittees (36% of all sampled permittees) had not submitted a DMR in the past three years. Table 5 summarizes the sample results.

| Table 5 Compliance with DMR Submittal Requirements for Sampled Cases | | |
|---------------------------------------------------------------------------------------|----------------------|----------------------------|
| Level of DMR Compliance | Number of Permittees | Percentage of Total Sample |
| In Compliance | 49 | 38% |
| Not In Compliance | 80 | 62% |
| No Reports in File | 36 | 30% |
| No Reports for Last 3 Years | 47 | 36% |

NPDES Permits Renewed Without DMRs Submitted

As was previously stated, each permit file should contain at least one year of DMRs prior to the current permit cycle. Furthermore, according to the DWR, *“DMRs are regularly reviewed for all major facilities (92) and all the POTW facilities receiving federal funding (90). DMRs for other facilities are reviewed when those facilities have their permits up for modification or re-issuance.”* **However, each of the facilities above had their permits renewed, including those without DMRs present in the case file.**

It is important to have DMRs available to the case writers because DMR compliance should to some extent dictate the frequency of required DMR submittal. According to the EPA's NPDES permit writers handbook,

*Several factors should be considered in determining the specific requirements to be imposed. Basic factors that may affect sampling location, sampling method, and sampling frequency are: Applicability of “effluent limitations guidelines” (ELG); Effluent and process variability; Effect of flow and/or pollutant load on the receiving water; Characteristics of pollutants discharged; and, **Permittee compliance history.***

The EPA's permit manual further states that

The monitoring frequency may be adjusted to reflect the compliance history of the facility. A facility with problems achieving compliance generally should be required to perform additional monitoring to characterize the source or cause of the problems or to detect noncompliance.

However, if a facility is not submitting DMRs, then a complete compliance history is unavailable, and yet the DWR continues to re-issue permits without this essential information. **It is interesting to note that DWR is diligent in notifying permittees and voiding over 100 permits for failure to submit the annual permit fee, yet it does not notify permittees to submit DMRs when they have not been submitted, nor does it predicate the renewal of a permit on the submission of DMRs.**

Environmental Enforcement Does not Perform Enough Inspections on Minor Facilities to Offset the Lack of DMRs

When DMR data for facilities is not present, there is a greater burden on inspections. Although certain generalizations can be drawn about a facility's discharge by a routine inspection (for example if a facility is having problems with its chlorination tanks it may be discharging excessive levels of fecal coliform), the only way to know the exact composition of discharge for a facility is through a compliance sampling inspection (CSI). The Environmental Enforcement Office (EE) currently performs 40 to 50 CSI's a year for minor facilities. This means that if a facility is not submitting DMRs, and has not received a CSI, then there is no way to know exact information about that facility's discharge. Table 6 below shows the number of inspections performed each year by Environmental Enforcement.

Table 6
Average Number of Inspections Performed Annually by EE*

| Inspection Type | Number of Inspections |
|-----------------------------------------------------------------------|------------------------------|
| Compliance Sampling Inspections (NPDES) | 80 to 100† |
| Compliance Evaluation Inspections (NPDES) | 80 to 100 |
| Industrial Facility Inspections (NPDES) | 600 |
| Landfill (NPDES and Solid Waste) | 450 |
| Sewage Treatment (NPDES) | 1,150 |
| Package Plants (NPDES) | 1,900 |
| NPDES Storm Water | 800 |
| Additional Solid Waste Facilities (No NPDES Permit, Solid Waste Only) | 300 |
| Sewage Sludge Inspections (Solid Waste) | 135 |
| Remediation Inspections | 480 |
| Groundwater Protection | 50 |
| Total Inspections | Approximately 6,100 |
| *Source: Office of Environmental Enforcement | |
| †Divided evenly between major and minor facilities | |

Minor Facilities are Monitored with a Lower Priority than Major Facilities

According to the DWR, major permittees receive more resources than minor permittees for two reasons. First, the DWR has several obligations to the EPA regarding major permit holders. These obligations include the entering of DMR data and the development of the QNCR, as well as the obligation to annually inspect major facilities. By closely regulating major facilities, the DWR prevents the EPA from intervening on state issued permits. Second, the DWR focuses more attention on major permit holders because major permittees are responsible for a larger volume of discharge, and therefore a greater threat to public health as well as water quality.

There are approximately 2,591 minor facilities with required reporting requirements regulated by the DWR. The Legislative Auditor's Office sampled 129 permits which represents 4.9% of all minor permittees which are required to submit DMRs. On average, each minor facility in the sample contributed 29,000 gallons of discharge a day. The total volume of discharge for facilities in the sample totaled 3.8 million gallons per day. Given that the sample represented 4.9% of reporting facilities, then it can be estimated that minor facilities which are required to report

DMRs account for nearly **80 million gallons a day of discharge**. This does not include those minor POTWs which receive federal funding and are reported on the QNCR. Table 7 shows the estimated discharge for minor facilities.

| Table 7 Estimated Discharge for Minor Facilities | |
|---------------------------------------------------------------------|-----------------------------|
| Total Number of Facilities Required to Submit DMRs | 2,591 |
| Total Number of Permits Sampled by the Legislative Auditor's Office | 129 |
| Percentage of all Permits Sampled | 4.9% |
| Total Discharge for all Sampled Permits | 3.8 million gallons per day |
| Estimated Discharge for Minor Facilities | 80 million gallons per day |

Consequences of Not Monitoring Facilities

Since the purpose of the NPDES program is to protect the health of West Virginia citizens and to preserve the quality of West Virginia surface and groundwater, neither of these goals can be met without knowing the discharge of minor facilities. According to the DWR, ***"The agency currently regulates through permits in excess of 4,200 facilities, so a number of violations would be expected."*** Furthermore, minor facilities are not typically as compliant with permit limitations as major facilities (who as noted earlier often have difficulty meeting permit requirements). According to the EE,

I believe majors generally demonstrate better compliance due to financial ability to do so, full time professional environmental/legal staff, greater awareness of liability associated with non-compliance, and a corporate sensitivity to be environmentally responsible. There are, of course, exceptions.

On the other hand, for example, a minor permit holder may be a loosely formulated homeowners association that really have no idea of the significance of the need for environmental compliance. Often, the minor "package plants" do not have full time operators, but are periodically checked by an operator hired by the permittee. This may or may not be adequate to run the plant. Additionally, many minors are "small town" type government entities where it is not politically popular to increase sewer rates to the amount necessary to generate adequate revenue to properly operate and maintain a treatment and collection facility.

Conclusion

Without minor facilities regularly submitting DMRs, and with a limited number of sampling inspections each year, the DWR and EE cannot be certain that minor facilities are in compliance with the terms and conditions of their permits. Given the fact that minor facilities account for approximately 80 million gallons a day, the DWR and EE could be compromising the quality of West Virginia waters.

Recommendation 2:

The DWR and the EE should ensure that all minor facilities submit DMRs as required, and DWR reviews them for compliance before renewal.

Recommendation 3:

The DWR should implement a procedure in which minor permits are notified when DMR's have not been submitted and indicate to permittees that the permit will not be renewed unless DMR's are submitted.

APPENDIX A

Transmittal Letter to Agency

WEST VIRGINIA LEGISLATURE
Performance Evaluation and Research Division

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John Sylvia
Director

December 27, 2001

Ms. Allyn G. Turner, Director
Division of Water Resources
Department of Environmental Protection
1201 Greenbrier Street
Charleston, WV 25311-1088

Dear Ms. Turner:

This is to transmit a draft copy of the Preliminary Performance Review of the Division of Water Resources. This report is scheduled to be presented at the Sunday, January 6, 2002 interim meeting of the Joint Committee on Government Operations. It is expected that a representative from your agency be present at the meeting to orally respond to the report and answer any questions the committee may have. We would like to schedule an exit conference to discuss the report with you Friday, December 28th, if this is convenient with you. We would appreciate your written response by Friday, January 4, 2002 in order for it to be included in the final report.

Thank you for your cooperation.

Sincerely,

John Sylvia
John Sylvia

JS/plb

c: Michael O. Callaghan, Secretary

Joint Committee on Government and Finance

APPENDIX B
Agency Response



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January 4, 2002

Mr. John Sylvia
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Re: Division of Water Resources Performance Evaluation Response.

Dear Mr. Sylvia,

Thank you for the opportunity to review and discuss with you your office's findings made pursuant to your recent legislative audit of the Division of Water Resources, West Virginia Department of Environmental Protection. Your report has brought to light issues which should be and will be addressed. Below, please find DWR's official comments and responses to your report:

ISSUE I: ENFORCEMENT OF FECAL COLIFORM DISCHARGE EFFLUENT LIMITS AT MAJOR FACILITIES.

Recommendation 1: The DWR should develop a program which will analyze DMR data and provide the DWR with quarterly violators of the fecal coliform standards.

A. Background.

As noted in your report, major facilities sample and report analysis of their effluent discharge on a monthly basis ["Discharge Monitoring Reports" or "DMRs"]. These reports contain the results of their sampling and indicate whether the facility is in compliance with their permitted discharge limitations.

The Review recognizes that the DWR, in conjunction with the United States Environmental Protection Agency [USEPA], has a system in place for assessing compliance by major facilities with their permit discharge limits for numerous parameters. The DWR regularly places the results of these DMRs into a database maintained by USEPA. The USEPA mandates that DWR use the Permit Compliance System [PCS] program to input the DMR results.

"To use all available resources to protect and restore West Virginia's environment in concert with the needs of present and future generations."



On a quarterly basis, DWR generates a Quarterly Non-Compliance Report [QNCR] using the information contained in USEPA's PCS. This report flags effluent violations identified by the system. The DWR and USEPA use the QNCR to determine overall compliance performance and whether further action is necessary.

B. Issue.

As a result of this audit, it came to DWR's attention that the PCS did not have the capacity to recognize fecal coliform (one of the parameters for which a discharge limit is included in most major facility permits) violations and therefore, did not alert the agency of these permit violations as was previously thought. While the system does notify the agency of other violations, the PCS is unable to identify fecal coliform violations.

C. Response.

The DWR was unaware of this loophole in the PCS system. While undoubtedly a concern, the DWR does not believe that this oversight has resulted in rampant violations of the fecal coliform standards in major facility permits. In February 2000, the DWR undertook a review of two years worth of data that had been submitted by major facilities and found that major facilities had a 99% rate of compliance with their fecal coliform discharge limits.

Of further note, the Review indicates that there were 295 fecal coliform violations among 46 major facilities over a three-year period, which would equate to a compliance rate of approximately 91% (295 violations out of 3,312 fecal coliform samples) for those facilities with violations.¹ These values do not include sample results for additional major facilities that are in compliance with their fecal coliform limits, therefore, the overall percentage of samples which comply with fecal coliform limits is higher than 91%.

It is also important to note that a facility's noncompliance with its fecal coliform parameter would currently be detected and evaluated for enforcement action if the facility was in violation of multiple parameters or if an inspection revealed problems, including possible fecal coliform violations, at the facility. This is evidenced in your Report by the fact that of the ten permittees noted in the Review as displaying a trend of noncompliance with regard to fecal coliform, enforcement action has been taken by the DWR against seven of those permittees despite the PCS oversight. Additionally, one of the remaining three facilities is operating pursuant to the terms and conditions of a USEPA federal consent decree.

¹Major facilities with fecal coliform limits would report at least two fecal coliform values (for both a daily maximum limit and an average monthly maximum limit) each month. This means that the 46 facilities in question would have reported at least 3312 fecal coliform values over a three-year period, with 295 violations reported.

The Review properly credits the DWR with promptly taking enforcement actions to correct violations by those major facilities, and that most violations are observed and acted upon in a timely manner.

Therefore, while the DWR acknowledges the current loophole, it does not believe that the existence of this loophole has compromised water quality in the state.

The DWR concurs with your report that it has a responsibility to assure each facility complies with its permit limits, including limits for fecal coliform.

D. Recommended Action.

Environmental Enforcement [EE] has internally discussed the failure of the QNCR to retrieve fecal coliform violations and has decided to perform manual reviews of DMRs in order to determine compliance for major facilities. This effort will further be complimented by efforts at DWR's permitting section to generate quarterly reports of fecal coliform violations at major facilities and forwarding this report to EE for potential enforcement action.

As a final solution, the DWR is currently developing an electronic data system which will supplement the current PCS system and assure that all parameters, including fecal coliform, are examined for compliance. The program will cover all facilities, not just major facilities.

All DMR information will be submitted and tracked electronically in order to provide for the foremost efficiency and minimize the need for staff.

The program will be designed to "red flag" all violations and is scheduled to be on-line in 2003 and will eliminate the current problems with PCS.

ISSUE II: DMRs AND INSPECTIONS FOR MINOR FACILITIES.

Recommendation 2: The DWR and the EE should ensure that all minor facilities submit DMRs as required, and DWR reviews them for compliance before renewal.

Recommendation 3: The DWR should implement a procedure in which minor permits are notified when DMRs have not been submitted and indicate to permittees that the permit will not be renewed unless DMRs are submitted.

A. Background.

All facilities that obtain a West Virginia/National Pollutant Discharge Elimination System permit [WV/NPDES] must submit DMRs to the agency showing that the permittee has taken samples and performed an analysis of the sample for compliance with permit parameters. The sheer volume of information submitted can overwhelm the limited staff assigned to filing and inputting DMRs into a database.

Approximately 13,000 DMRs are submitted by minor facilities in paper form to the permits section of the DWR per year. These DMRs are to be filed into the paper records kept by the DWR. Due to staffing limitations, only one temporary employee has the responsibility for filing these DMRs.

The DWR also inputs approximately 4,100 DMRs per year into its current PCS database. Information contained on paper DMRs is inputted by two full-time DWR employees who also have additional administrative duties related to permitting activities.

All permitted facilities are also subject to inspection by EE at reasonable times as set forth in the statute. Again, the sheer number of permitted activities, combined with additional duties, do not allow for EE inspectors to regularly visit each permitted site on a regular basis.

Currently, DWR is able to support 16 field inspectors responsible for approximately 4,200 WV/NPDES permittees as referenced in this Review. All major facilities are inspected on a regular basis while smaller facilities are prioritized for inspection and enforcement due to staffing limitations. This prioritization will cause some facilities to go un-inspected for periods of time.

B. Issue.

Your Review has indicated that a substantial number of minor facilities have no record of DMRs being submitted and further are not inspected on a regular basis.

Despite these inadequacies, your Review further found that DWR renewed permits even though no inspections had been made and there were no DMRs to examine compliance. Because taken as a whole these facilities may significantly impact water quality, your Review expressed concern regarding this practice.

C. Response.

The DWR agrees that the practice of renewing some permits without compliance information for minor facilities has occurred and must be changed.

Staffing concerns, though, make it impossible for all minor facilities to be inspected on even an irregular basis. The DWR continues to maintain that it is the proper use of resources for EE inspectors to continue their activities on major facilities and priority minor facilities. It must also be recognized that inspection staff have responsibilities other than inspection, including but not limited to complaint investigation, emergency response, enforcement actions, and training/education.

Clearly though, the failure of facilities to submit DMRs is unacceptable. Without this information, the audit properly states that permit writers do not have a complete compliance history available, and in some cases, may not have sufficient information about prior discharges.

D. Recommended Action:

The DWR is implementing technology as mentioned above so that DMRs are submitted electronically by permittees directly to the DWR. This will solve much of DWR's resource problem for handling DMRs. Using this system, the DWR and EE will also be able to perform compliance monitoring because it will have the capacity to compare DMR results and permit limitations and "red flag" all violations. The new database will also alert the agency if no DMRs have been submitted.

This system is scheduled to be in place in 2003.

In the interim, the DWR will no longer process permit renewal requests for minor facilities without analytical information being submitted. If DMRs are not available, the permittee will be notified of the deficiency and if no DMRs have been submitted the permittee will be required to collect multiple samples and test for compliance with permit parameters. If the facility did not submit DMRs and fails to submit the required information, the permit will not be re-issued and the facility will be forwarded to EE for possible enforcement action.

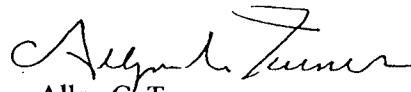
As explained above, regular inspections of all permitted facilities are not a reasonable expectation under the current staffing level due to budgetary limits. Therefore, no further response is made related to additional inspections.

Also, the DWR is currently piloting a process to receive DMRs on diskettes, which will allow DWR staff to download information into a computer database and again limit the need for additional resources in processing the receipt of DMRs.

Mr. John Sylvia
January 4, 2002
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I thank you once again for the opportunity to submit these comments and thoughts regarding your performance evaluation. Should you need any further information, please do not hesitate to call me at (304) 558-2107.

Sincerely,


Allyn G. Turner
Director

AGT/pm

cc: Michael O. Callaghan, Secretary
Jerry Ray, Permits, DWR
Mike Zeto, EE, DWR