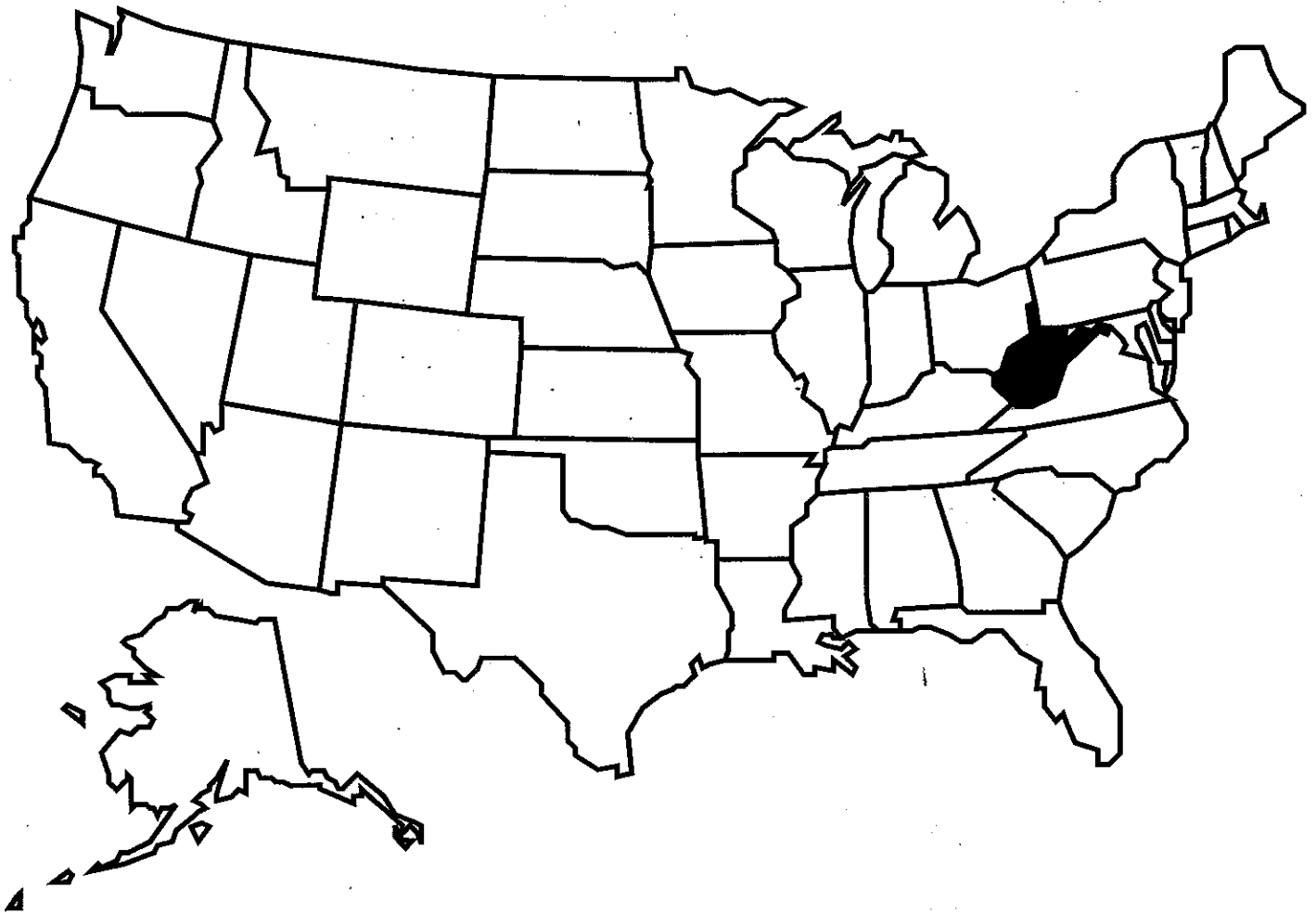


**IOGCC/EPA STATE REVIEW OF  
OIL & GAS EXPLORATION & PRODUCTION  
WASTE MANAGEMENT REGULATORY PROGRAMS**

# **West Virginia State Review**



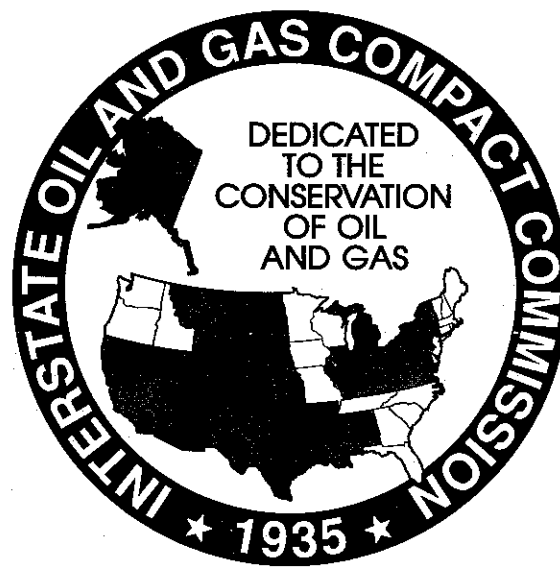
**A PROJECT OF THE  
Interstate Oil & Gas Compact Commission**

December 1993



# WEST VIRGINIA STATE REVIEW

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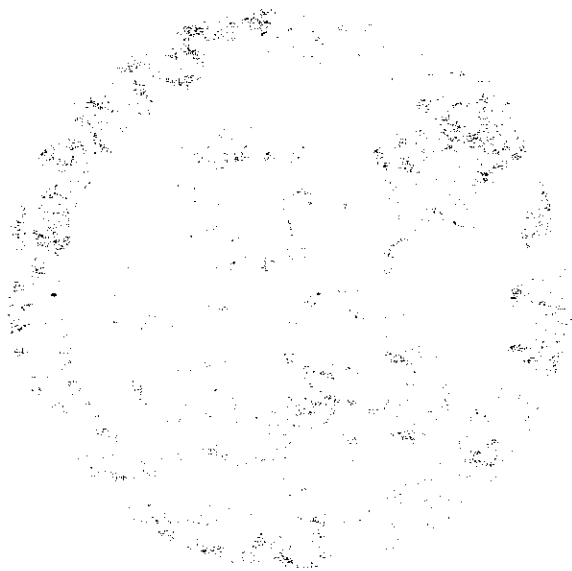


A Project of the  
Interstate Oil and Gas Compact Commission

November 1993

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT  
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## INTRODUCTION

This report contains the findings and recommendations of a six-person team appointed by the Interstate Oil and Gas Compact Commission (IOGCC) to review components of the regulatory programs of the State of West Virginia that pertain to management of wastes derived from the exploration and production (E&P) of crude oil and natural gas. The review was coordinated by the IOGCC in cooperation with the United States Environmental Protection Agency (EPA) and other interest groups.

**BASIS FOR THE REVIEW:** The primary basis for the West Virginia review is the report EPA/IOGCC Study of State Regulation of Oil and Gas Exploration and Production Waste, hereinafter referred to as the "IOGCC Guidance" or "IOGCC Guidelines". The review team evaluated West Virginia's E&P waste regulatory programs against the guidelines and criteria listed in the IOGCC Guidance. However, the review team also had some latitude to make inquiries, findings, and recommendations beyond the specific guidelines and criteria contained in the IOGCC Guidance. The Guidance deals only with E&P waste identified as exempt from the Resource Conservation and Recovery Act (RCRA) Subtitle C. Since the potential exists for nonexempt waste to be commingled with exempt waste at E&P sites, steps should be taken to prevent such. This issue is not the subject of this report.

The ultimate purpose of the review is to identify strengths and recommend improvements for the state's E&P waste regulatory programs. Because it is not intended to be a detailed review of the effectiveness of West Virginia's E&P waste program, the review did not include an evaluation of various site-specific case studies or environmental data. The review (and the criteria upon which it is based) is more of an evaluation of whether the state has certain elements of an E&P waste regulatory program than it is a determination of the extent to which the West Virginia program is protective of human health and the environment.

Ground rules for the West Virginia review were established by an IOGCC steering committee comprised of state environmental and oil and gas regulatory officials, representatives of industry and environmental organizations, and officials of interested federal agencies. Members of the review team, official observers of the review, rules of participation, and guidelines for preparation of the draft and final reports were approved by the steering committee.

**CONTENT OF THE REVIEW:** A questionnaire (see Appendix B), based primarily on criteria listed in the IOGCC Guidance, was developed by the steering committee and used as a focal point for the West Virginia review. The questionnaire touched only briefly on E&P waste management practices and issues that were not addressed in the administrative and technical criteria of the IOGCC Guidance. Those practices and issues excluded are:

- Technical requirements for injection wells regulated under the federal Safe Drinking Water Act (SDWA);
- Effluent limitations for discharges to surface waters regulated under the federal Clean Water Act's National Pollutant Discharge Elimination Systems (NPDES);

- Monitoring and regulating of naturally occurring radioactive material (NORM) in oil field wastes; and
- Air emission from oil field wastes or waste management facilities.

Questions concerning injection wells and NPDES-permitted discharges were limited, both in the questionnaire and during the in-state review, to how the regulatory programs for those practices interface with other E&P waste management practices that involve the handling and disposition of liquid and solid wastes.

The review team focused its evaluation on West Virginia's regulatory requirements for onsite disposal of drilling wastes and offsite treatment and disposal facilities. The review addressed management of those wastes in onsite pits, one-time land application, burial, roadspreading, surface facilities at commercial disposal wells, and solid waste landfills.

Statutory and administrative components of the West Virginia programs, including staffing and funding levels, and enforcement activities were assessed against applicable criteria in the IOGCC Guidance. How West Virginia's programs interface with federal programs applicable to E&P wastes was also reviewed.

**REVIEW TEAM MEMBERSHIP:** The review team selected for the West Virginia review included Mr. D. Michael Wallen (review team chairman), Director, Oil and Gas Division, Kentucky Department of Mines and Minerals; Ms. Patricia C. Beaver, Technical Secretary, Colorado Oil and Gas Conservation Commission; Ms. Sandra F. Brennan, Director, Bureau of Oil and Gas Regulation, New York Department of Environmental Conservation; Mr. David M. Flannery, Esq., Appalachian Producers; Mr. David Frederick, Esq., Lone Star Chapter - Sierra Club; and Mr. William F. Guerard, State Oil and Gas Supervisor, California Department of Conservation, Division of Oil, Gas, & Geothermal Resources.

**OBSERVERS:** Observers included Mr. David McMahon, West Virginia Citizens Action Group, Charleston, West Virginia; Mr. Robert Radabaugh, S & R Gas Ventures, Sand Fork, West Virginia; and Dr. Brent Smith, Project Manager, U.S. Department of Energy, Metairie Site Office, New Orleans, Louisiana. Others present included Mr. Steve Souders, U.S. Environmental Protection Agency, Waste Management Division, Washington, D.C.; and Mr. Jerry R. Simmons and Ms. Nancy L. Simmons, IOGCC staff.

**WHERE AND HOW THE REVIEW WAS CONDUCTED:** The West Virginia review was conducted in Charleston, West Virginia on August 2-6, 1993. The primary respondents to the questions posed by the review panel during the week were: Mr. Ted Streit, Chief/Commissioner, Division of Environmental Protection, Office of Oil & Gas; Mr. Mike Lewis, Environmental Program Manager; Mr. Jerry Tephabock, Environmental Inspector Supervisor; Mr. Steve Casey, Environmental Inspector Supervisor; Mr. Al Blankenship, Environmental Resource Specialist; Mr. Brett Loflin, Environmental Resource Specialist; Mr. James Stevens, Environmental Specialist; and Mr. Tim Greene, Environmental Resource Specialist.



The review was conducted by discussing the answers to the questionnaire provided the review team by OOG. Prior to beginning each section of the questionnaire, the appropriate agency staff member would give an overview of the topic to be discussed (i.e., permitting, enforcement, technical requirements, etc.). Each review team member was responsible for leading the questioning and ensuing discussion for particular topics in the questionnaire. Observers were also allowed to interject questions throughout the review process. At the end of each day, the review team and observers would identify issues raised during the daily questioning sessions. Taking these into consideration, the review team then prepared a rough draft of findings and areas of concern for most of the criteria listed in the IOGCC Guidance document, which was presented to Mr. Streit at the beginning of the next day's session. The panel outlined positive aspects of the West Virginia regulatory program and expressed some of the identified areas of concern.

Each review team member was assigned one or more sections to prepare as a draft report for the West Virginia review. The review team met again on September 7-10, 1993, to complete the draft report. Once completed, the draft report was distributed to all participants in the review, including the West Virginia regulatory officials and review observers. The review team met on October 25-27, 1993, to consider all comments and prepare the final report.

Consensus was reached on most of the findings and recommendations contained herein. In areas where consensus was not achieved, appropriate entries have been made in the report.

## **OIL AND GAS PRODUCTION AND WASTE MANAGEMENT IN THE STATE OF WEST VIRGINIA**

### **History of Oil and Gas Regulations Related to Environmental Protection**

#### **History of Oil and Gas Production**

- 1929 - The Oil and Gas Division was created in the Department of Mines. Well location plats were required before drilling for oil or gas. Initial regulations were promulgated for the protection of coal seams and groundwater. These regulations related to the procedures for the plugging and abandonment of oil and gas wells or dry holes. Plugging was mandated for abandoned wells.
- 1929-1962 - Regulations adopted in 1929 were amended as new technology and experience mandated.
- 1963 - Regulations were promulgated requiring security for the drilling of oil or gas wells.
- 1969 - Regulations were adopted relating to the underground injection for enhanced recovery or disposal.
- 1976 - Oil and gas sites were required to be reclaimed after completion of drilling and plugging. An Examining Board was created to assure oil and gas supervisors and inspectors were qualified to enforce the regulations for the drilling, producing, and abandonment of oil and gas wells.
- 1977 - A plugging fund was created for the plugging and abandonment of orphan wells and the Abandoned Well Program (AWP) was implemented.
- 1983 - Legislation was adopted which amended the plugging and abandonment regulations and required that surface owners be compensated for damages. The administrator of the Office of Oil and Gas was authorized to deny permits based on the performance of the operator. The administrator and inspectors were authorized to order operations to cease if there was an imminent danger that drinking water might be damaged. Bonding requirements were significantly increased.
- 1984 - Primacy for the administration of the Underground Injection Control Program was granted to the state by the U.S. EPA.
- 1985 - The West Virginia Department of Energy was created, and the Director of Oil and Gas was vested with jurisdiction over all solid waste, surface water, reclamation, hazardous waste, NPDES authority and UIC authority.
- 1989 - The Department of Energy was renamed the Division of Energy.

- 1990 - The Legislature passed the West Virginia Ground Water Act and gave the Division of Energy, Oil and Gas Division, authority for groundwater permits for oil and gas wells.
- 1991 - The Division of Environmental Protection was created in the same Division with the Office of Oil and Gas. It was given the jurisdiction to oversee all environmental protection issues relating to oil and gas operations.
- 1992 - The Legislature passed the West Virginia Abandoned Well Act which contains requiring financial responsibility for all wells; establishing a priority system for plugging abandoned wells; defining the amount of financial responsibility for all wells; authorizing interested persons to plug and abandon wells; providing for arbitration, and authorizing civil penalties.

### **THE WEST VIRGINIA NATURAL GAS INDUSTRY**

The West Virginia natural gas industry is one of the oldest in the United States. The first year of production in the state for natural gas was in 1885. In fact, West Virginia was the nation's largest gas producer until the 1920s. This heritage carries over to the present, in that the state ranks sixth in the United States in the number of gas wells. Of the 48,622 wells drilled up through 1990, there are 37,000 still actively producing. The cumulative extraction of deposits in West Virginia has created the "space" to make the state one of the major gas storage areas in the nation with nearly 500 billion cubic feet of capacity. This is coupled with a growth in investment in storage related facilities, such as compressor stations, and has allowed more uniform year-round production.

In terms of future potential, West Virginia ranks tenth in terms of proven gas reserves, amounting to 2,342 billion cubic feet in 1990. However, if unconventional deposits, such as tight sands and Devonian Shale are included, the reserve estimate would have to be adjusted upward. At present, producers in West Virginia are actively tapping the reserve base, and the state ranks tenth in the United States in terms of annual production. The drilling segment of the industry is characterized by small and middle-sized firms, and, overall, 90 to 95 percent of this activity is done by independents. These firms are able to attract nearly 95 percent of their capital from outside of the state.

West Virginia is traversed by four major pipeline companies that buy a significant portion of the state's production. In addition, these pipelines transport gas from other regions through the state to eastern markets. Overall, the state is self-sufficient in gas, but its central location between producing and consuming regions result in in-flows several times higher than annual production and consumption, recently averaging about 150 billion cubic feet each.

## **THE WEST VIRGINIA OIL INDUSTRY**

The oil industry in West Virginia also has a long and proud heritage, though it is significantly smaller in size than the gas industry. The first year of oil production in the state was in 1860. Since that time, approximately 48,000 oil wells have been drilled, and, as of 1990, 16,000 are in production. In 1990, oil reserves were 30 million barrels, placing the state twenty-second in the United States; natural gas liquids were 100 million barrels. Oil reserves showed a steady rise, moving up from a plateau of 30 million barrels, in situ, during the late 1970s and early 1980s, to a peak of 76 million barrels in 1984. The state's oil production has been steadily declining since the early 1900s. However, since 1950 to the present, the state has seen the production level off at an average of approximately 2.8 million barrels annually.

### **I. GENERAL**

#### **A. Regulatory Jurisdiction and Authorities**

##### **1. State Agencies**

There are seven state regulatory authorities or other entities that have some impact on oil and gas E&P waste management initiatives in West Virginia. Except as noted below, each of these is within the Department of Commerce, Labor and Environmental Resources.

- The Division of Environmental Protection (DEP)
- The Division of Natural Resources (DNR)
- The Water Resources Board (WRB)
- The Air Pollution Control Commission (APCC)
- The Oil & Gas Inspectors' Examiners Board
- The Oil & Gas Conservation Commission
- The Shallow Gas Well Review Board
- The Office of the Attorney General (not within the Department of Commerce, Labor, and Environmental Resources)

Whether or not cities and other local governmental units have legal authority to regulate E&P waste management activities, they do not do so in West Virginia.

## **Division of Environmental Protection**

Four offices within the DEP exercise or could exercise some authority over E&P environmental compliance. They are the Office of Oil & Gas (OOG), the Office of Water Resources (OWR), the Office of Air Quality (OAQ), and the Office of Waste Management (OWM).

Office of Oil & Gas - The OOG is by far the dominant office. It regulates nearly all E&P waste management activities in the state. It has the statutory authority to regulate or manage the regulation of all E&P waste management activities. As elaborated upon subsequently, the DEP and all of the offices within it, including the OOG, were at the time of this review still in a state of transition. Perhaps partly for this reason, the OOG has no long-term planning process. It undertakes a yearly definition of goals, generally quantifiable, to be attained during the upcoming year.

### **FINDING I.1.**

DEP has not yet institutionalized a multi-year planning process for E&P waste management.

### **RECOMMENDATION I.1.**

Though the DEP has been in a state of transition, and while IOGCC Guidance do not expressly address long-term planning, the review team nonetheless recommends DEP develop a long-term planning process.

Office of Water Resources - The OWR has oversight responsibilities for water and groundwater issues in West Virginia. Prior to July 1992, OWR was a component of the DNR. Theoretically, it has no state E&P waste management responsibilities. However, it is the state agency that issues NPDES permits under the Clean Water Act. The OWR is the ultimate state issuing authority, but as a practical matter, the OOG manages the E&P NPDES permit issuing process for the OWR. The OWR certifies the laboratories that analyze the samples (e.g., those from drilling pits) that must be gathered to remain in compliance with OOG pit management permits.

Office of Air Quality - Until recently, the OAQ was a component of the APCC. The extent of air pollution attributable to E&P activities is not clear; various offsite E&P waste management activities (e.g., tank bottom recycling or cleansing of hydrogen sulfide absorption units) entail or should entail air quality permits which would be issued by the OAQ.

Office of Waste Management - The OWM is the final office within the DEP that has or could have regulatory responsibility for E&P wastes. Any waste that is not disposed of to water or air and that originates at an oil or gas E&P site, unless the waste is regulated by the OOG, would be subject to regulation by the OWM.

## **Division of Natural Resources**

DNR has had most of its responsibilities related to E&P waste management transferred to the DEP. It remains the trustee for public lands, and in this capacity it could effectively influence E&P waste management activities on public lands. DNR is also the statutory trustee for state wildlife resources.

## **Water Resources Board**

The WRB consists of five appointed members. It has a small staff and is principally responsible for establishing water quality standards for surface and groundwater. It is the appellate body for review of nearly all DEP decisions, except those related to air pollution.

## **Air Pollution Control Commission**

The APCC also has had most of its responsibilities transferred to the DEP. It receives staff support from the DEP. The APCC, however, retains the authority to promulgate air pollution regulations, and it retains authority to hear the appeals of parties found by some office of DEP to have violated those regulations. The Commission consists of five appointed members and two ex officio members.

## **Oil & Gas Inspectors' Examiners Board**

The Oil & Gas Inspectors' Examiners Board is another appointed board. It examines candidates for the job of oil and gas inspector, it ranks those candidates, and it hears job grievances filed by or against oil and gas inspectors. Inspectors may also file job grievances with the Public Employee Grievance Board. Two of the Examiners Board members are representatives of major oil and gas producers, two are representatives of minor or independent oil and gas producers, and one is a college professor of engineering. The OOG provides staff for the Board.

Those who support the existence of a board such as the Oil & Gas Inspectors' Examiners Board argue it makes the selection of individuals to be oil & gas inspectors less arbitrary; it functions as a screening committee to generate for the Chief of the OOG a short list of qualified candidates for employment. Proponents of such a board also argue that it provides a relatively impartial appellate tribunal experienced in the oil and gas industry to which inspectors with job grievances may turn.

Those who do not support the concept of such a board argue that it is an unnecessary layer of bureaucracy; tends to obscure lines of responsibility for inspector selection, supervision, and discipline; and, as currently composed, encourages selection of inspectors with a bias towards industry. These people also argue that many of its responsibilities vis-a-vis inspectors are duplicative of the responsibilities of other agencies, such as the West Virginia Civil Service Commission. These people also argue that individual inspectors are occasionally influenced to industry's benefit by the fact that they know they will be reviewed by a group composed primarily of representatives of the regulated industry.

The OOG has helped draft legislation to accomplish a change in the Board's composition. Under the draft legislation, the Board would consist of a representative of large oil and gas producers, a representative of small or independent oil and gas producers, the Chief of the OOG, the Chief of the OWR, and a member of the general public.

#### **FINDING I.2.**

The Oil & Gas Inspectors' Examiners Board is an undesirable layer of bureaucracy that duplicates functions of other agencies and that obscures lines of authority for inspector selection and discipline, and it has the potential to adversely affect inspector behavior.

#### **RECOMMENDATION I.2.**

Although beyond the scope of the IOGCC Guidelines, the review team recommends that the Oil & Gas Inspectors' Examining Board be abolished or, failing that, be restructured to greatly reduce representation of the regulated industry in its membership. The team also recommends the Oil & Gas Inspectors Examining Board, in any event, not have inspector discipline responsibilities.

#### **Oil & Gas Conservation Commission**

The Oil & Gas Conservation Commission consists of five members. Three of these are appointed, one is the Director of the DEP, and one is the Chief of the OOG.

The Oil & Gas Conservation Commission is responsible for regulation of pooling and unitization of deep wells in West Virginia. Pooling and unitization occurs infrequently in West Virginia, where only about 5 percent of the wells are deep wells. An argument was made during this review that pooling and unitization should be addressed as part of E&P waste management; however, the review team recognized that pooling and unitization are beyond the scope of this review.

#### **Shallow Gas Well Review Board**

The Shallow Gas Well Review Board consists of three members; one is appointed by the Governor, one is the Director of the DEP, and one is the Chief of the OOG. It is responsible for resolving objections coal interest owners raise regarding the siting of oil and gas wells.

#### **Office of the Attorney General**

The Attorney General provides legal assistance to all state agencies in West Virginia. The office has nine assistant attorneys general to support DEP. None of these, however, is dedicated to the OOG, and assistant attorneys general are little used by the OOG. In 1992, the year preceding this review, the office of the Attorney General billed no time to support the OOG.

## **2. Federal Agencies**

The Bureau of Land Management of the Department of Interior has jurisdiction over federally owned lands within West Virginia. It can and occasionally does impose its own restrictions on E&P waste management on those lands. Its jurisdiction to do this is concurrent with the jurisdiction of the OOG.

## **3. Statutory Authority**

E&P waste management regulatory responsibilities within West Virginia had been reorganized in the year preceding this review. This reorganization was accomplished in part by statute and in part by Executive Order that was authorized by the statute. Basically, the Executive Order filled in details not specified in the legislation, but that were essential to ensuring continuity of state regulatory programs. For example, under the West Virginia Water Pollution Control Act, the Chief of the Water Resources Section of the DNR is empowered to issue permits for discharges that may find their ways to the waters of the state. The legislation that created the DEP did not explicitly transfer this responsibility from the Water Resources Section of DNR to DEP. However, that legislation did provide that the Governor could, by Executive Order, make such a transfer. The Governor, by Executive Order, transferred the responsibilities (except NPDES permit responsibilities) of the Chief of the Water Resources Section of DNR to the Director of the DEP, to which the office and all of the functions of the Chief of the Water Resources Section had already been transferred.

Until legislation has been enacted to which conforms to the Governor's Executive Order, there will be some difficulty in determining the subtleties of the statutory authorization for various programs. Legislation has been drafted by the DEP that will, if adopted by the legislature, clarify the bases of authority.

### **FINDING I.3.**

A number of West Virginia's substantive E&P waste management laws vest duties in offices that have been subsumed within DEP. This circumstance obfuscates the connection between statutory authorization and agency action/regulation.

### **RECOMMENDATION I.3.**

The review team recommends that conforming legislation, such as that drafted by DEP, be adopted. IOGCC Guidance section 3.1.

OOG's Authority - The basic law governing the operations of the OOG is set out in Chapter 22B of the West Virginia Code.



#### **FINDING I.4.**

OOG has integrated its environmental and operational programs well. IOGCC Guidance section 4.1.1.

The OOG treats a gas storage well as it would any other well. Wastes from the drilling or operation of storage wells are regulated as are any other E&P wastes. The OOG, at the time of this review, was undertaking the development of regulations to address groundwater issues associated with gas storage operations.

In West Virginia, it is unlawful for any person, unless they hold a permit therefore, to allow waste to enter the waters of the state (either surface or groundwater). The authorization to issue non-NPDES water pollution control permits resides, by virtue of the Executive Order, in the Director of the DEP, who has delegated that responsibility to the Chief of the OOG for permits related to the E&P activities. It is on the basis of this authorization that the OOG issues its "General Permit" for drilling pit wastes.

The West Virginia Groundwater Protection Act empowers, via the Executive Order, the Director of the DEP to promulgate regulations to safeguard groundwater in West Virginia from the results of E&P activities. This act is, thus, the statutory authority for certain groundwater protection fees assessed E&P operators and is the authority for other groundwater protection requirements.

West Virginia has a Hazardous Waste Management Act, a Solid Waste Management Act, and an Air Pollution Control Act. Each of these provides statutory authority, often overlain by statutory authority provided at West Virginia Code Chapter 22B, under which the Director of the DEP may act to permit and prevent E&P waste management practices resulting in discharges to land or air.

The Drilling Fluids General Permit - A large percentage of oil and gas E&P waste management activity occurs pursuant to a general permit applicable to exploratory/developmental drilling, reworking of wells, and well treatment operations, referred to as the "Drilling Fluids General Permit." This permit is described in more detail in the next chapter of this report. It controls the fluids that may enter a pit that is itself associated with well work or reworking and the manner by which those fluids may be treated and land applied when the pit is closed. It is under the Drilling Fluids General Permit that approximately 500,000 barrels of fluid per year are land applied in West Virginia.

A particularly beneficial component of the Drilling Fluids General Permit is the requirement that the operator develop an Erosion and Sediment Control Plan (sometimes referred to as a Construction and Reclamation Plan) for the well. This plan must address such matters as the proposed revegetation program, and it must incorporate a site plan sketch that shows all significant site characteristics and instances of surface disturbance.

The Chief of OOG indicated that pit maintenance and closure has improved substantially since implementation of the Drilling Fluids General Permit. The Drilling Fluids General Permit is viewed by the OOG as an excellent regulatory tool, because it adds uniformity to the regulation of the E&P

waste management. Since most E&P operators elect to have their activities covered by the Drilling Fluids General Permit, the permit greatly reduces administrative overhead. There is currently no guidance document covering this permit.

Forthcoming General Permits - The success of the Drilling Fluids General Permit has prompted the OOG to begin development of two other general permits. One of these, the Associated Waste General Permit, will address such matters as tank bottoms and pipeline drip wastes, some of which are not currently regulated by the OOG. A Produced Fluids General Permit is also being developed. As an aid to the development of this permit, the OOG is currently analyzing some 10,000 barrels of produced fluid to identify characteristics to be regulated by the permit. Guidance documents are being developed for each of these upcoming permits.

While West Virginia is currently making excellent progress towards a general permit for associated waste and a general permit for produced fluids, those general permits are not yet finalized or in effect. West Virginia should finalize general permits for associated waste and produced fluids as early as possible.

A Note About Rulemaking - One aspect of the regulatory process in West Virginia is atypical of that process in most oil and gas producing states. In states thus far reviewed by the IOGCC (Wyoming, Pennsylvania, Texas, California, Oklahoma, Alaska, and Kansas), oil and gas regulatory agencies actually have rulemaking authority. In West Virginia, an agency regulation may not legally be adopted until it has been specifically authorized by the state legislature. In West Virginia, an agency proposes a new rule and files the proposed rule with the Secretary of State. (The OOG typically negotiates the terms of the rule to be proposed with the interested parties.) Thereafter, the text of the proposed rule is published and the public may comment on it. The agency responds to comments on the proposed rule, and the proposed rule goes to the Legislative Rule-Making Review Committee, where it is reviewed by legislative staff attorneys prior to its being forwarded to the full legislature. From this point, the proposed regulation is treated as would be any other piece of legislation.

#### **FINDING I.5.**

The OOG does not have statutory authority to actually promulgate appropriate rules and regulations. Because the legislature may do so, West Virginia's E&P waste management program meets a strict interpretation of IOGCC Guidance section 3.1.

#### **B. Federal Programs**

West Virginia has "primacy" for federal UIC, NPDES, Clean Air Act, and RCRA programs.

### **C. Coordination of Government E&P Waste Management Activities and Public/Industry Outreach**

Almost all responsibility for environmental protection in West Virginia is lodged in the DEP. Prior to the merger of air, water, solid and hazardous waste management authorities at DEP, there were memoranda of understanding that had been executed by various predecessor agencies. Now, however, there are no memoranda or other agency practice statements describing exactly who does what within the DEP, vis-a-vis E&P waste management.

#### **FINDING I.6.**

If there were E&P waste management memoranda of understanding among DEP offices, and between DEP and other regulatory subdivisions, the boundaries of each regulator's responsibilities could be more easily ascertained by all affected parties, and activities that are not actually being regulated would likely be identified.

#### **RECOMMENDATION I.6.**

The review team recommends that the DEP adopt a statement that delineates the E&P waste management roles of each of its offices, and also negotiate similar memoranda with other relevant state regulatory authorities. IOGCC Guidance sections 3.1.e. and 4.4.

OOG advisory boards currently function on an ad hoc basis. (Legislation has been drafted to establish a permanent advisory board to the DEP.) Evidence presented to the review committee indicated that public and special interest participation in the ad hoc review committees is actively sought by the Chief of the OOG.

#### **FINDING I.7.**

The OOG does not have a standing advisory board on E&P waste management issues but it regularly utilizes ad hoc advisory boards, thereby meeting IOGCC Guidance section 4.2.2.3.

The OOG attempts to offer information seminars to the oil and gas industry twice a year.

The OOG has a well-institutionalized system for handling citizen complaints regarding E&P activities. There are some complaints that do not reach this system. The state maintains several "800" numbers to assist in the collection of citizen complaints; currently, probably because of the recent merger of various agencies, not all of the 800 numbers actually terminate within the OOG.

The OOG attempts to promote citizen understanding of the responsibilities imposed by the state on E&P operators by formal public outreach programs (such as booths at county fairs). In a similar vein, and much to its credit, the OOG has established a computerized bulletin board from which one may retrieve many of the data summaries prepared by the OOG concerning waste management activities within the state. This bulletin board may be accessed via Internet.

## **FINDING I.8.**

OOG has a commendable set of practices in place for outreach to the public and to industry. IOGCC Guidance section 4.2.2.

### **D. Staffing and Funding**

#### **1. Office of Oil & Gas**

At the time of the review, the OOG was operating with approximately 26-1/2 full time employees including the Chief, 13 full time inspectors and 2 supervisors, and an annual budget of \$1.7 million. In addition to these personnel and financial support, the OOG has some access to the resources of the other offices within the DEP, e.g., the OWR and the OWM. Staff resources had remained approximately constant in the three years preceding this review, but, probably as a result of decreased permitting activity, funding for the OOG has dropped approximately 30 percent in that period.

The review team found that discrepancies exist in the pay scales for oil and gas inspectors and for coal mine inspectors. Evidence presented to the review team indicated that surface mine inspectors with 2 years seniority received approximately \$3,500 more per year than do similarly situated oil and gas inspectors. This discrepancy is \$6,000 for deep mine coal inspectors. However, OOG inspectors, except for one, make above the mid-point for their class which includes deep mine and surface mine inspectors.

Funding for the OOG comes from four sources: (1) the UIC Program; (2) the Well Plugging Program; (3) fees; and (4) general revenue. Generally, the UIC Program contributes approximately \$100,000 annually to the OOG. The Well Plugging Program generates, on average, \$400,000 per year, though this figure has fluctuated in a range between \$100,000 and \$600,000. Assessments help fund the Well Plugging Program, as do bond forfeitures and cost recoveries from the owners of plugged wells. Bond forfeitures for 1989 alone accounted for approximately \$350,000.

The general revenue appropriation is actually an appropriation to the Director of the DEP. The Director, subject to some limitations, may divide the appropriation among the various offices in that division as he or she sees fit. Because neither user fees nor assessments imposed on oil and gas operators are, by law, dedicated to the OOG, there is always some apprehension that these fees and assessments may be used for other state purposes, and this apprehension undermines support within the regulated community for the payment of fees and assessments. Also, as is frequently the case in state government, unexpended appropriations to the DEP lapse at year end and return to the general revenue fund, from which they may or may not be appropriated in subsequent years to DEP. Although difficult to ascertain with any certainty, there was some apprehension among employees interviewed by the review team that legislative appropriations from general revenue can be expected to drop in years when the OOG has been particularly successful in recovering assessments.

#### **FINDING I.9.**

The OOG does not have enough inspectors or funding to fully meet its statutory mandate. (See also Section IX of this report.)

#### **RECOMMENDATION I.9.**

The review team recommends that West Virginia explore means to significantly increase OOG funding so that OOG can meet its statutory mandate. IOGCC Guidance section 4.1.2.1.b.(1) and (2).

The qualifications for field inspectors are heavily weighted for industry experience; ten years experience is required by statute. Environmental training and experience is not statutorily required for the hiring of field inspectors. The OOG has drafted legislation that, if adopted, would lessen the weight of industry experience in the hierarchy of inspector qualifications and that would increase the weight of formal education and environmental experience in those qualifications.

#### **FINDING I.10.**

The OOG's attempts to broaden inspector qualifications are needed and laudable.

There are no traditional environmental scientists on staff in the OOG. Similarly, there are no in-house attorneys. Each of these specialty resource shortfalls can be, to some extent, offset by reliance on specialists found elsewhere in the DEP or at the State Attorney General's Office.

#### **FINDING I.11.**

The OOG does not have formal agreements with other DEP offices regarding the sharing of specialized staff expertise.

#### **RECOMMENDATION I.11.**

The review team recommends DEP develop formal memoranda for sharing staff environmental expertise among OOG and other DEP offices. IOGCC Guidance sections 4.3.1.3. and 4.4.

#### **FINDING I.12.**

The OOG does not seek legal advice early in its initiatives.

#### **RECOMMENDATION I.12.**

The review team recommends OOG acquire sufficient legal support to prepare and pursue appropriate enforcement actions and to provide procedural and substantive support for rulemaking. IOGCC Guidance section 4.3.1.2.

## **E. NORM**

The response of the OOG to the potential naturally occurring radioactive material (NORM) problem is being guided by a 1989 survey made by the American Petroleum Institute (API) of the occurrence of NORM in E&P waste streams throughout the country. That survey determined NORM did not appear to be a problem in the West Virginia oil and gas industry.

## **F. Abandoned Wells**

An abandoned well is a well for which no use has been reported for a period of 12 months. W.Va. Code §22B-1-19. This type of well is to be distinguished from the smaller category of "orphaned" wells; orphaned wells are wells for which no owner can be identified. As a practical matter, orphaned wells are also abandoned wells. OOG has recently undertaken to map the locations of all orphaned wells. About 26,000 orphaned wells had been identified at the time of the review, and another 15,000 - 25,000 are thought to be orphaned and not yet mapped. In addition, there are approximately 14,000 wells which have responsible parties but are abandoned. Some of these operators have started plugging programs and some others have demonstrated future uses for the wells.

### **FINDING I.13.**

OOG's orphaned well mapping project is a high quality program that may be a model for other states.

### **RECOMMENDATION I.13.**

Although beyond the scope of the IOGCC Guidance, the review team recognizes West Virginia's efforts to identify abandoned and orphaned wells and recommends the state continue with these efforts.

The state has an Abandoned Well Act. W.Va. Code §22B-5-1, et seq. Basically, it provides that all wells must be bonded (\$5,000 per well or \$50,000 for a blanket bond). Before this bond may be released, the operator must plug the well or transfer it to another operator who has posted a bond. If the operator fails to do so, the bond may be forfeited, and the proceeds from the forfeiture deposited to the state's Oil and Gas Reclamation Fund. Further, the operator may be sued civilly for \$25,000 and the money recovered from such suits deposited to the same fund. The fund is further enhanced by a \$100 per well special reclamation fee, which is levied at the time the operator applies for a permit to drill a well.

Proceeds from this fund need not be expended to plug any particular well, so the fund is available to finance the plugging and/or reclamation of the abandoned wells or sites with the highest priority. The Abandoned Well Act prudently provides a ranking guideline by which DEP must prioritize wells by category for plugging. This prioritization scheme has been implemented.

The Act also provides that interested third parties, though they assume some risks and permitting fees, may plug abandoned wells after notice to surface owners and well owners, if the latter can be identified.

Currently, the OOG contracts to plug about 20 wells per year with funds from the Oil and Gas Reclamation Fund. This number may be increased with greater availability of qualified contractors.

#### **FINDING I.14.**

West Virginia has a thoughtfully designed program for prioritizing abandoned wells for plugging high-priority wells.

Four members of the review team, while supporting this finding, nonetheless believes the rate of state-financed well plugging should be increased in light of the large number of abandoned wells in the state.

## **II. PERMITTING**

### **A. Regulatory Mechanisms**

Statutory authority for handling much of the exempt E&P wastes generated during oil and gas activities is placed with the OOG. OOG makes use of a combination of regulatory mechanisms in their management of E&P wastes, including individual and general permits and permit by rule.

#### Well Work Permit

OOG issues individual Well Work permits for any activity at a wellsite under the authority of W.Va. Code §22B-1-6. An Erosion and Sediment Control Plan must be submitted for each site which includes, among other information, the proposed pit location and construction specifications. 38 CSR 18-16. Technical specifications for the pits are also contained within the Drilling Fluids General Permit.

#### Underground Injection Control Permit

The OOG has authority under W.Va. Code §22B-1-7(b)(6) to issue individual permits for underground injection disposal of certain exempt E&P fluids. This authority covers the regulation of individual and commercial disposal facilities from the permitting and registration phase through the operation phase to the plugging and reclamation of the facility.

### Drilling Fluids General Permit

OOG developed a Drilling Fluids General Permit under authority found in W.Va. Code §22B-1-7(a); this general permit allows land application of treated oil and gas drilling pit wastes and is issued in conjunction with a Well Work Permit. The Drilling Fluids General Permit requires the operator to file a Discharge Monitoring Report as a formal record of the disposal activity, including the method of disposal, the location and testing results if land applied, and the plan for plugging and reclamation of the wellsite.

### Water Pollution Control Permit

Any E&P waste discharged to waters of the state requires a Water Pollution Control Permit according to W.Va. Code §22B-1-7(b)(1). At the present time, OOG reviews permits for discharges to surface waters, but jurisdiction for permit issuance rests with the OWR. OOG and OWR are currently working together to develop a general permit for surface water discharges of produced fluids.

### Solid Waste and Hazardous Waste Permits

Any exempt E&P waste covered by the OOG Well Work Permit or the Drilling Fluids General Permit is considered to be permitted by rule under the Solid Waste regulations (38 CSR 12-4) and the Hazardous Waste regulations (38 CSR 13-4). Wastes not covered by rule are subject to separate Solid Waste or Hazardous Waste requirements, under the respective regulatory requirements of 47 CSR 38 or 47 CSR 35.

### **FINDING II.1.**

Adequate permitting procedures are in place for the handling of all drilling pit wastes by OOG.

### **FINDING II.2.**

At the present time, exempt E&P wastes fall under the jurisdiction of various offices of DEP, including OOG, OWR, OWM, and OAQ.

### **RECOMMENDATION II.2.**

The review team recommends that West Virginia continue to consolidate authorization for regulating exempt E&P wastes with the OOG. A formal interagency agreement or memoranda of understanding is needed to place responsibility for handling all exempt E&P wastes under the OOG. IOGCC Guidance section 4.1.1.



The OOG has investigated the suitability of issuing general permits for exempt E&P wastes other than drilling pit wastes. OOG has developed a draft general permit for associated wastes and has plans to develop a general permit for NPDES-approved waste discharges to surface waters of the state.

#### **FINDING II.3.**

OOG recognizes that general permits are a method of regulating activities that are otherwise difficult to regulate individually, in light of the activity levels and fiscal constraints.

#### **RECOMMENDATION II.3.**

The review team recommends that OOG work with OWR to develop a NPDES general permit addressing produced water discharges to surface waters, which can be issued by the OOG for a fixed term, followed by an evaluation of the permit to identify the level of success and the need for modification, if necessary. IOGCC Guidance section 4.1.1.

#### **FINDING II.4.**

The draft associated waste guidance document provides guidance on the goals of waste minimization, separation of exempt and nonexempt wastes, and selection of appropriate disposal technologies.

#### **RECOMMENDATION II.4.**

The review team recommends that the OOG complete the associated waste general permit for a fixed term, followed by an evaluation of the permit to identify the level of success and the need for modification, if necessary.

Legislation recently expanded the term of a well work permit from 8 months to 2 years, UIC permits are valid for a period of 5 years; the Drilling Fluids General Permit has a term not to exceed 5 years.

#### **FINDING II.5.**

All permits meet the fixed term IOGCC guidelines given in section 4.1.1.

OOG has regulatory authority to review the compliance status of an operator prior to making a permit decision; an operator must be registered, bonded, and have no unabated violations. 38 CSR 18-5. In conducting this review, the agency examines only the records of the applicant and not those of its principals or any affiliated company.

#### **FINDING II.6.**

The OOG computer system stops processing of a permit application if the applicant does not meet compliance requirements. The review team commends the OOG for development and use of the "lock-out" procedure to prevent issuance of a permit to a non-complying applicant. IOGCC Guidance section 4.1.1.

Adequate controls to prevent substantial erosion and sedimentation, and to ensure proper pit closure are required in the Erosion and Sediment Control Plan. The disposal method for the pit fluids is given in the Drilling Fluids General Permit. If the pit fluids are to be land applied, predischARGE and postdischarge composite samples are collected for analysis. OOG staff stated that the pit liner may be removed or folded over and buried at the time of pit closure.

#### **FINDING II.7.**

The plan gives no indication of whether a liner is required and what its disposition will be.

#### **RECOMMENDATION II.7.**

Although beyond the scope of the IOGCC Guidelines, the review team recommends that, whenever possible, the ultimate disposition of a pit liner, if used, be identified in the Erosion and Sediment Control Plan.

The Chief of OOG, after public notice and an opportunity for comment, may grant a variance from the Drilling Fluids General Permit and from any requirement of 38 CSR 18.

#### **FINDING II.8.**

Formal certification of the accuracy of all information provided by the operators to the OOG is required. This is an effective compliance and enforcement tool and is supported by the review team. IOGCC Guidance section 4.1.2.

The response time for an agency decision on a permit application is not more than 60 days for a well work permit and after a 30-day public comment period for a UIC disposal permit. Activity cannot proceed until the permit is formally issued.

Procedures exist to limit the time available for agency review of a well work permit. Review team members differed on whether the review time was too long or too short to preserve integrity of the review process while allowing for adequate public participation. General consensus of the review team was that a fixed term for permit review is appropriate, and the length of review time is best left to local decision makers.

## **B. Financial Assurance**

West Virginia requires financial assurance from operators before issuance of a permit subject to the oil and gas law. Financial assurance is also required for any existing, unplugged well. The financial assurance covers all activities at a wellsite and includes any remediation and reclamation required at a site. Statutory authority is found in W.Va. Code §22B-1-26 and 22B-5-4, and in the rules and regulations at 38 CSR 18-10. The form of the financial assurance must be approved by the Chief and may be surety bond, collateral bond (cash and securities), letter of credit, escrow account, self-bonding, or a combination. W.Va. Code §22-b-26(d). Financial assurance requirements were reviewed and revised in 1992, and are currently set by law at \$5,000 per well or \$50,000 for a blanket bond which can cover an unlimited number of wells. The Chief indicated he has the flexibility to determine whether to require individual bonds for newly permitted wells, allow new wells to be added to the existing blanket bond, or require multiple blanket bonds.

### **FINDING II.9.**

The blanket bond level of \$50,000 is small when compared to the average well plugging cost of \$10,000 in West Virginia and to the number of wells covered. Yet the blanket amount is a feasible amount for most operators to maintain for the wells under their control. It is important that the OOG maintain the flexibility to require additional financial assurance for future wells even if the operator already has a blanket bond.

In West Virginia, financial assurance is a performance guaranty. According to W.Va. Code §22B-1-26(i), the assurance instrument may be forfeited for noncompliance with the statute, rules and regulations or an order of the Chief. Staff reports that collection of forfeited instruments provides an annual amount which ranges between approximately \$100,000 to \$600,000 and which is placed in the Oil and Gas Reclamation Fund.

### **FINDING II.10.**

The forfeiture procedures meet or exceed the guidelines established by IOGCC Guidance section 4.2.3. Appropriate access to the funds by the state appears to be legally assured, and an effective enforcement program facilitates obtaining funds to be used to address abandoned wellsite problems.

The West Virginia Abandoned Well Act (W.Va. Code §22B-5-1 et seq.) provides additional incentives to encourage operator compliance with financial assurance requirements through a phase-in period of five years. The Chief may authorize a payment of 20 percent of the total financial assurance per year by the operator until the 100 percent financial assurance requirements are met.

Another aspect of the Abandoned Well Act provides for the establishment of priorities for expenditures of the Oil and Gas Reclamation Fund. The OOG staff stated that a priority system ensures that the most critical sites will be addressed, but that funds collected for an infraction at a particular site need not be used to address that particular violation. Staff stated further that enforcement will continue against a violator after the financial assurance is forfeited.

The Abandoned Well Act allows interested persons to enter the premises on which an abandoned well is located and to properly plug or replug and reclaim the abandoned well.

#### **FINDING II.11.**

The incentives and provisions of the Abandoned Well Act will encourage increased compliance by operators and will assist in seeing that high priority well plugging and reclamation of abandoned sites occurs. The review team recognizes the importance of these incentives and provisions to the effective oversight of E&P waste management.

### **III. SITING**

Siting of E&P waste facilities in West Virginia currently consists of complying with conditions of the Well Work Permit and the Drilling Fluids General Permit. Well Work Permits restrict drilling within 200 feet of a water well or dwelling without written consent of the owner. W.Va. Code §22B-1-21. A broader restriction mandates protection of freshwater sources. W.Va. Code §22B-1-11.

Siting restrictions in the Well Work Permit address the following four items:

- (1) Does proposed well work constitute a hazard to the safety of persons?
- (2) Is the soil erosion and sediment control plan adequate? (See also Section VI.B. of this report.)
- (3) Will damage occur to publicly-owned lands or resources?
- (4) Does the proposed well work fail to protect freshwater sources or supplies?

The OOG uses these general restrictions to address fluid makeup, surface contour, proximity to drinking water supplies and wells, and residential buildings.

#### **FINDING III.1.**

The OOG has general siting guidelines or restrictions that address surface contour, proximity to drinking water supplies and wells, surface water, and residential buildings.

Siting criteria for pits are set forth in regulations, general permits, and manuals. 38 CSR 18-16.4 sets forth the minimum requirements for the construction of pits and provides for performance standards that would mandate different construction techniques depending upon site conditions. Similarly, the Drilling Fluids General Permit contains performance standards for pit construction which mandate differing construction techniques depending upon site conditions. The Erosion and Sediment Control Field Manual, upon which an operator's reclamation plan for each site must be based, contains a specific mandate to identify siting features in the development of an Erosion and Sediment Control Plan.

The Plan must identify such features as streams and wetlands, utilities, roads, drain ways, ridges, steep areas, soil limitations, stream crossing, rock outcrops, land use and cover, and property boundaries and fence lines. In addition, the Manual directs that, in selecting a site for pit construction, the operator should avoid excessively steep areas, wet seepage areas, swamps, and excessively rocky areas when possible. OOG's siting criteria do not specifically address historical sites, archeological sites, or endangered species. In the permit review process, OOG discourages drilling pits in wetlands or floodplains. While there is soil variation from drill site to drill site, OOG inspectors have sufficient knowledge about these variations to be able to take them into account in addressing pit construction on a site-specific basis.

### **FINDING III.2.**

With the exception of depth-to-groundwater restrictions, the West Virginia program meets the siting guidelines outlined in IOGCC Guidance section 5.3.3.

### **RECOMMENDATION III.2.**

The review team recommends OOG address depth-to-groundwater restrictions in its permitting program. IOGCC Guidance section 5.3.3.

In 1991, West Virginia passed a Groundwater Protection Act. This Act requires groundwater regulatory agencies to take such actions as may be necessary to assure that facilities or activities within their respective jurisdictions maintain and protect groundwater at existing quality. The Act further requires that regulatory agencies develop groundwater protection practices to prevent groundwater contamination from facilities and activities.

Wetlands, to the extent that they are known, have been identified and mapped by the State of West Virginia. There are no known oil and gas E&P waste facilities or activities in known wetland areas. Wetlands are included within the state's definition of waters of the state. W.Va. Code §20-5A-2(e).

### **FINDING III.3.**

While West Virginia has no specific siting restrictions on wetland areas, wetland guidelines are covered by the Erosion and Sediment Control Plan.

## **IV. PUBLIC PARTICIPATION**

The IOGCC Guidelines establish minimum criteria for public participation in E&P waste management regulation. These criteria are set forth explicitly at:

- Section 4.2.2.1. - Provision for adequate pre-issuance notice to and comment by the affected public of permits;

- Section 4.2.2.1. - Access by the public to pertinent and non-"trade secret" records related to the state's E&P waste management program, especially to records of operator spills and violations;
- Section 4.2.2.2. - Information dissemination to the industry and the public as part of a process of open information exchange;
- Section 4.2.2.3. - Agency use of diverse membership advisory groups to provide feedback on E&P waste management activities;
- Section 4.1.2.1.c. - Procedures for encouraging public report of alleged operator violations and for ensuring appropriate and timely agency response; and
- Section 4.1.3.3. - Procedures by which the affected public may seek administrative and/or judicial review of agency actions.

In addition to these explicit criteria, there are a few implicit public participation criteria. For example, there is no explicit IOGCC criterion requiring a degree of public participation in E&P waste management rulemaking. IOGCC Guidance 4.1.1. says a state must have a regulatory mechanism to assure wastes are handled in an environmentally responsible manner and implies an opportunity for public input as to what constitutes "an environmentally responsible manner."

For purposes of the following discussion, the activities that comprise the West Virginia E&P waste management program are disaggregated to five categories. The categories are: rulemaking, permitting, permit compliance enforcement, record accessibility, and means of interaction with public and industry.

#### **A. Rulemaking**

The OOG uses informal work groups that include representatives of the interested public to develop a proposed rule. Notice of the proposed rule is then published in the state register. There is a 30-day written comment period and, often, there is a public hearing 30 days after the filing of the proposed rule. The OOG then responds to the comments made by the public, makes any changes to the proposed rule OOG deems appropriate, and forwards the proposed rule to a joint committee of both houses of the legislature.

The joint legislative committee may also consider public comments and amend the proposed rule. From this point, the authorization to adopt the proposed rule passes through the legislative process as would a conventional bill. Public hearings, on request, must be granted in the House and may be granted in the Senate.

## **FINDING IV.1.**

OOG's practice of using diverse ad hoc work groups during the formative stage of rulemaking is a good practice that furthers the IOGCC Guidance (sections 4.2.2.2. and 4.2.2.3.) for use of advisory groups and for information exchange.

### **B. Permitting**

#### **Well Work**

Before an operator may do "well work," including any site disturbance, that operator must obtain a well work permit from the OOG. W.Va. Code §22B-1-6(a). Written notice of the application for a well work permit must be served on the surface owner of record and on surface owners of record of land overlying the subsurface leasehold, if the surface owned by the latter individuals is to be disturbed. Written notices of drilling and fracturing activities must also be served on registered underlying coal seam operators or, in the event coal operations are not under way, on registered coal owners or lessees.

The notice must be given on or before the permit application is filed with the OOG. The notice to the surface owners described above includes notice only of their rights to comment on the four statutory grounds upon which the Chief may modify the well work permit. (See also Section III of this report.) The comments must be filed with the OOG within 15 days after the well work permit application is filed. W.Va. Code §22B-1-10(a). The Chief of OOG says that, as a policy, he accepts comments after the 15 days. Surface owners have no hearing or judicial review opportunities regarding OOG's Well Work Permit decisions unless the Well Work Permit has been consolidated with a Water Pollution Control Permit. W.Va. Code §22B-1-7.

In addition to notices described above, certain surface owners have the right to have the E&P operator test water wells before drilling the oil or gas well. This notice is served on the surface owner of record of the E&P wellsite when the Well Work Permit application notice is given to that surface owner. A water well testing notice alone is also given to occupants of any dwellings and users of conspicuous water sources within 1,000 feet of the oil or gas well. In the latter cases, the notice (1) is served on the residents of any such dwellings, personally, by posting or by certified return receipt mail, and (2) is posted on any conspicuous use of a well or spring. W.Va. Code §22B-1-9 and 38 CSR 18-19.2.1. and 2.

Finally, when a Well Work Permit is issued, a copy is sent to any person who made comments, and a copy is sent to the county tax assessor.

#### **Drilling Fluids General Permit**

One of the requirements of the Drilling Fluids General Permit is that the operator give the wellsite landowner 15 days' written notice of the operator's intent to begin pit construction or to inform the

wellsite landowner of that intent at the time the operator files a site registration form with the OOG, whichever time is earlier.

The landowner may protest to the OOG, if he or she feels the Drilling Fluids General Permit waste treatment or disposal methodologies are inappropriate to the particular site. OOG will attempt to resolve such a protest cooperatively. However, OOG has the authority to impose additional terms on the operator, if water quality concerns dictate those terms. Though the protest and disagreement resolution process provided for in the Drilling Fluids General Permit is an informal one, either the landowner or the operator may appeal OOG decisions affecting water quality to the WRB. Drilling Fluids General Permit, G.12. Similarly, a party who could establish that he or she was aggrieved by the water quality terms of the Drilling Fluids General Permit itself could appeal to the WRB at the time the Drilling Fluids General Permit is promulgated or revised; revisions occur currently in approximately 5-year cycles. Drilling Fluids General Permit, G.12.

#### **FINDING IV.2.**

The minimum amount of time for persons receiving notice of a Well Work Permit to make a comment is 15 days.

#### **RECOMMENDATION IV.2.**

The review team recommends that the OOG evaluate whether the 15-day period is adequate. IOGCC Guidance section 4.2.2.1.

#### **FINDING IV.3.**

The Drilling Fluids General Permit provides that the surface owner and the operator may agree to waive the comment period for pit work or pit discharge. This is a good mechanism to minimize any burden on the operator while giving appropriate and adequate participation in the Well Work Permit process to surface landowners who might have concerns about pit waste management.

#### **FINDING IV.4.**

The Drilling Fluids General Permit and the Well Work Permit, together, provide an appropriate mechanism for resolving disputes between the operator and the surface owner regarding water quality issues.

#### **FINDING IV.5.**

Adjacent and downstream landowners do not, in all cases, receive notice of Well Work Permit applications.

Although beyond the scope of the IOGCC Guidelines, one team member believes it necessary to make the following recommendation.



#### **RECOMMENDATION IV.5.**

Notice of Well Work Permit applications should be published in local newspapers, and documentation of this publication should accompany the application filed with the OOG. Landowners adjacent to the wellsite should receive written notice of the application simultaneously with the filing of the application with OOG. Any affected member of the public should be allowed to protest, within 15 days after the Well Work Permit application is filed, and should have some opportunity for hearing and judicial review.

#### **FINDING IV.6.**

The OOG accepts comments on permits which are technically beyond the scope of the public's right to comment on well work permits and the OOG's right to act upon the comments. This promotes the OOG's policy of being accessible to the public and may give information to the OOG which can be useful in determining problem areas, generally, and taking further actions on permits where otherwise authorized.

#### **FINDING IV.7.**

Notice is given to the occupants of land upon which water sources or supplies are located if the sources or supplies are located within 1,000 feet of a proposed oil or gas well. The notice advises that the operator will have to test the recipients' water source or supply upon request of the occupant of the land.

#### **C. Enforcement**

It is a policy of the OOG to have oil and gas inspectors' top priority be investigation of, and response to, citizen complaints. This can draw an inspector's attention away from higher priorities that may not be appreciated by the citizen. It is important that the OOG respond to citizens, because there are too few inspectors, and citizens can be the inspectors' eyes and ears, and because the inspectors are public servants.

#### **FINDING IV.8.**

On balance, the review team believes the priority given citizen complaints is justified.

#### **D. Access to Agency Records**

The public, generally, has access to all records pursuant to West Virginia's Freedom of Information Act and rules specific to the DEP. The OOG informally gives even greater access than required. OOG's computer data management gives additional public access. All agency records, with the exception of wireline logs, are at one location.

#### **FINDING IV.9.**

The policy of the OOG regarding public access to agency records exceeds the criteria established by IOGCC Guidance section 4.2.2.1.

#### **E. Interaction with the Public and Industry**

The OOG disseminates information in a number of ways. The agency has published a variety of manuals containing its statutes and regulations and other requirements. It conducts seminars directed generally to the industry but open to the public. It disseminates a variety of pamphlets responding to the most immediate public interests. It attempts to inform the public of the availability of these pamphlets, etc., by such outreach efforts as booths at county fairs.

#### **FINDING IV.10.**

The OOG does a very good job of disseminating program information to the public.

### **V. CONTINGENCY PLANNING**

The OOG has the authority under 38 CSR 11-7 and -8 to require production facilities and workover operations to maintain appropriate spill prevention systems. In addition to inspections performed by OOG staff, operators are required to perform self-inspections of production facilities and submit annual reports to the OOG.

Under 38 CSR 11-9, the OOG has the authority to require submission of the federal Spill Prevention Control and Countermeasure Plan (SPCC) from an operator whenever a facility has: (1) discharged more than 1000 U.S. gallons into the waters of the state in a reportable discharge, or (2) discharged oil or other pollutants into the waters of the state in reportable quantities twice within any twelve-month period.

#### **FINDING V.1.**

The OOG E&P waste management program meets section 4.2.1. of the IOGCC criteria on contingency planning. The OOG has the authority to require spill prevention plans and spill prevention mechanisms for production facilities and during workover operations.

In addition to federal reporting requirements, spill reports must be submitted in West Virginia for the following reportable discharges: (1) any discharge that would be reportable under Section 311 of the federal Clean Water Act; (2) any upset or bypass causing effluent limitations to be exceeded under the Drilling Fluids General Permit; and (3) any pit failure which results in a discharge to any surface waters of the state. The operator must include on a spill report the substance and estimated quantity discharged, location, action being taken to contain, clean up, and remove the substance, and any additional information requested by the DEP. The OOG regulations address spills to wellsites from all potential pollutants, including hydrocarbons and stored fluids.

## **FINDING V.2.**

Spill reporting requirements under 38 CSR 11-3 are more stringent than federal spill reporting requirements. IOGCC Guidance section 4.2.1.

In the event of a spill or release at a wellsite, the DEP must be notified by telephone immediately and in writing when requested by the Chief of the OOG. The DEP has an 800 number within the state that is staffed at all times for spill reporting. This number is accessible to citizens and operators through statewide publication in telephone directories and on permits issued by the OOG.

When a spill is reported, an inspector from the OOG is immediately notified. The inspector contacts the operator to discuss how the spill will be cleaned up and to require that cleanup begin immediately. Operators are encouraged to test new technology in response to spills. In the event that the responsible party cannot be identified or the responsible party does not respond to the spill, the inspector can request assistance from the EPA for immediate clean up. The Coast Guard and the EPA have formed a regional response team to address spills. Inspectors have the authority to invoke imminent danger status to expedite cleanup. Inspectors have the authority to manage hazardous substance spills resulting from oil and gas operations. The OOG has a Spill Inspection Report Form that is completed by the inspector for all spills and cleanups. The OOG monitors spill information in its computer database. Inspectors undergo periodic training in spill response.

Onsite E&P waste disposal resulting from spills requires an operator to obtain a permit. The OOG is currently developing a general permit for associated wastes to address onsite disposal of E&P wastes, including wastes resulting from spills.

Failure to report or clean up a spill may result in the issuance of cease and desist orders, compliance orders, bond forfeitures, or permit denial. Other remedies for failure to report or clean up a spill include civil or criminal penalties and imprisonment; in addition the state can recover for environmental damage on fish and aquatic loss. Administrative penalties may be assessed for groundwater contamination. Pollution abatement and remediation of groundwater may be addressed through the Groundwater Remediation Fund established under the Groundwater Protection Act in W.Va. Code §20-5M-9.

## **VI. TECHNICAL CRITERIA**

### **A. General**

E&P waste management practices in West Virginia include onsite and offsite pits, burial of drill cuttings, land application of drilling fluids, and injection for enhanced recovery and disposal, with general permits under development to address control discharges to surface waters and onsite disposal options with respect to associated wastes. The only commercial waste management practices currently utilized in West Virginia are offsite municipal waste landfills to which certain E&P wastes (such as petroleum contaminated soils) are taken. An application for a commercial UIC disposal well is currently being processed. Technical criteria applicable to these practices are available to the

industry and the public through statutes, administrative rules, general permits, and published manuals and guidelines.

West Virginia statutory law prohibits the pollution of both groundwater and surface water. W.Va. Code §20-5A-19 and §20-5M-5. As the result of the passage of the West Virginia Groundwater Protection Act in 1991, technical criteria have been recently reviewed and updated in an effort to be consistent with the anti-degradation objective of that Act. Technical criteria for air quality control are defined at 45 CSR 21-1 et seq. for tanks and at 45 CSR 13-1 et seq. for permits. Hydrogen sulfide safety issues are addressed as part of permit approval.

Beyond its reliance upon traditional statutory and regulatory programs, the E&P waste management program in West Virginia utilizes a general permit for drilling fluids which authorizes the land application of treated liquids and the onsite burial of drill cuttings and pit content. Additional general permits are being developed with respect to the stream discharge of produced fluids from stripper oil wells and for the management of associated wastes.

#### **FINDING VI.1.**

DEP has programs that require the treatment, storage, and disposal of E&P wastes to be managed at all times to prevent contamination of ground and surface water, soil and air, protect public health, safety, and the environment and prevent property damage. IOGCC Guidance section 5.1.a.

West Virginia's regulatory program specifically prohibits placing materials of a nonexempt nature into drilling pits. OOG has education programs for operators pointing out the regulatory and enforcement consequences of handling nonexempt wastes in an authorized manner.

#### **FINDING VI.2.**

E&P waste management facilities in West Virginia are not allowed to receive, collect, or dispose of wastes that are listed as hazardous waste and regulated under Subtitle C of RCRA, except in accordance with state and federal hazardous waste laws and regulations. IOGCC Guidance section 5.1.b.

A review of OOG's rules and general permits indicates that the agency can vary from generally accepted requirements as necessary to recognize site-specific circumstances. In such cases where the Chief determines site-specific conditions to be warranted, permit conditions can be established to address the particular site involved. Drilling Fluids General Permit, G.13. Where a variance is granted with respect to an administrative rule, such variance must conform to sound engineering practice and be subject to public notice. 38 CSR 18-18.

#### **FINDING VI.3.**

Technical criteria for the siting, construction, and operation of E&P waste disposal facilities are flexible enough to address site-specific or regional conditions. IOGCC Guidance section 5.1.c.

The regulation of commercial landfills in West Virginia is regulated by OWM. Not only are those landfills subject to specific permitting requirements, but OWM also approves each specific waste stream that is directed to those landfills to determine the appropriateness of the landfill to receive that material. OOG's draft E&P Waste Management Guidance Document establishes a hierarchy for the handling of E&P wastes which encourages those wastes to be recycled and reused, where appropriate, and to be disposed of in commercial landfills only where more appropriate options are not available. A general permit for the management of associated wastes is currently being developed to formalize existing guidance.

#### **FINDING VI.4.**

E&P wastes may not be disposed of in municipal waste landfills unless those waste streams have been specifically reviewed and approved as being appropriate for disposal in the landfill to which they are being taken. IOGCC Guidance section 5.1.d.

#### **FINDING VI.5.**

The West Virginia program uses a combination of formal and informal mechanisms to establish a waste management hierarchy that features source reduction, recycling, and treatment as preferential to disposal. IOGCC Guidance section 5.1.e.

#### **B. Pits**

E&P pits are authorized in West Virginia through a combination of individual and general permits. Pits associated with well work activities are permitted on an individual basis. In addition, pits associated with drilling are regulated under OOG's Drilling Fluids General Permit.

While OOG inspectors do not field review every permit application prior to issuance, OOG has established a priority for inspectors to inspect pits prior to use. In addition, operators are obligated to provide notice to the inspector prior to pit construction. Emergency pits are approved, as necessary, and are required to maintain adequate freeboards and prevent overflowing. The inspector must be notified and supervise the construction of the emergency pit.

#### **FINDING VI.6.**

The pit permitting requirements of the West Virginia program satisfy the IOGCC Guidelines. IOGCC Guidance section 5.3.2.

OOG's regulations, Drilling Fluids General Permit, and Erosion and Sediment Control Field Manual (Manual) contain specific requirements with respect to pit construction. Specifically, pits must be constructed with adequate room to handle projected drilling and frac fluids, and to allow adequate freeboard during heavy rainfall. Pits must be constructed and maintained to prevent seepage, leakage, and overflows. Pits must be constructed below the surface or ground level, where possible, to assure structural integrity. Where pit walls are constructed above ground, they must be constructed with side slopes sufficient to preserve structural integrity. In addition, pits must be

constructed of impervious materials. Where existing soils are not suitable to prevent seepage or leakage of the pit, OOG mandates that a liner be installed in such a manner as to be protective, not only of the structural integrity of the pit, but also of the liner. Even though OOG's pit construction requirements are based on performance standards rather than specific design requirements, the state has experienced substantial improvement with respect to pit failures since implementation of the Drilling Fluids General Permit.

Through the application of siting criteria for pits, OOG may require operators to use tanks in lieu of pits particularly along flood plains. Where tanks are utilized, OOG does not reference API construction standards. Even though wildlife and waterfowl stress has not been a problem, OOG does mandate fencing around drilling pits, as needed, to prevent inadvertent livestock intrusion and vandalism.

#### **FINDING VI.7.**

General standards for construction of pits in West Virginia meet the IOGCC Guidance section 5.3.4.

Under the OOG E&P waste management program, pits are utilized for drilling, workover, plugging, and temporary storage of produced water. OOG does not authorize production pits for disposal, percolation, or evaporation. The operation of pits is regulated under the requirements of administrative regulations (38 CSR 18-16) and the Drilling Fluids General Permit. Operational requirements include prohibitions on the discharge to pits of produced fluids, unused frac fluid or acid, compressor oil, trash, rubbish, diesel fuel, or radioactive materials.

Best Management Practices set forth in the Drilling Fluids General Permit call for precautions to be taken to prevent the release of materials into waters of the state. They also call for the special handling of waste oils and containers. Surface water must be directed away from the pit. When an operator is unable to maintain adequate freeboard, additional pits must be constructed. In addition, the Drilling Fluids General Permit provides that the structural integrity of the liner be protected during the operation of a pit. Hydrocarbons must be removed prior to the treatment of pit contents for disposal. OOG does not allow pits to be used for the disposal of oily wastes.

#### **FINDING VI.8.**

Pit operational requirements meet IOGCC Guidance section 5.3.5.

Pit closure requirements are mandated by statute, regulation, and general permit. Statutory law mandates that pits be closed within 6 months of the completion of drilling operations. W.Va. Code §22B-1-30. Under the Drilling Fluids General Permit, residues left in a pit must be covered within 30 days following pit treatment. As discussed in an earlier section, the treatment of pit fluids mandates the removal of free oil and requires predischARGE and postdischarge analysis for pH, dissolved oxygen, chloride, suspended solids, and iron. In addition, there are specific treatment requirements.

The Drilling Fluids General Permit mandates that pit reclamation be conducted in accordance with the reclamation plan that is part of the Well Work Permit. It also requires that sufficient cover be placed on the pit to prevent contact with surface runoff and to reduce the potential for pollution of surface water. Regulations require that pit sites and related facilities be reclaimed to allow the surface of the land to be used for agricultural purposes. 38 CSR 18-16.4.8.

Requirements with respect to pit reclamation are contained in the construction and reclamation plans which must be designed to meet requirements of OOG's Erosion and Sediment Control Field Manual. While OOG has no formal policy for revising and updating this Manual, it typically has done so through an ad hoc technical group. The requirements of the Manual are communicated through seminars and publications. Pit sites are located as part of operational permitting requirements. If construction activities necessitates the relocation of a pit, operators are obligated to amend construction plans filed with OOG.

#### **FINDING VI.9.**

West Virginia's pit closure requirements meet IOGCC Guidance section 5.3.6.

#### **C. Landspreading**

OOG utilizes land application as its primary method for the disposal of liquids associated with drilling pits. Pursuant to its Drilling Fluids General Permit, pit fluids must be tested prior to treatment and discharge. Before treating the pit, free or floating oil must be skimmed off and removed. Minimum treatment requirements are established with respect to both aeration and extended settling time, which in some cases may be for as much as 20 days. Notification must be provided to an inspector at least 48 hours in advance of treatment and land application. Land application requirements prohibit application to saturated, frozen or impermeable ground, or in a way that would result in ponding, erosion, or runoff into waters of the state. Land application may be carried out only on vegetated land. Land application may not be carried out on lands utilized for cultivated garden plots. Neither may land application be carried out on food crops.

Final discharge effluent limitations for land application are set forth in the Drilling Fluids General Permit and include total iron, dissolved oxygen, settleable solids, chloride and pH. The General Permit contains a process by which the surface owner of record may request a review of the conditions applicable to the treatment or disposal of liquids by land application. OOG is authorized to revise the permit, as necessary, to take account of site-specific circumstances.

The land application of drilling fluids as authorized by the Drilling Fluids General Permit has been examined by the Division of Forestry of West Virginia University and found to have a minimal impact on vegetation and soils.

#### **FINDING VI.10.**

The West Virginia technical criteria for the land application of drilling fluids meets IOGCC Guidance section 5.4.

#### **D. Burial and Landfilling**

The Drilling Fluids General Permit authorizes the burial of drill cuttings and pit contents. As reviewed in the previous section, the Drilling Fluids General Permit requires the treatment of pit contents and the land application of fluids. Once fluids are removed from the drilling pit, the Drilling Fluids General Permit requires that the residues left in the pit be buried in place. Residues must be covered with adequate soil within 30 days to prevent contact with surface runoff and to reduce the potential for pollution of surface water. The specific requirements related to pit closure are set forth in the construction and reclamation plan. Drilling Fluids General Permit, G.4.(f). In addition to the liner, if any, materials remaining in the pit generally consist of fresh water-based drilling muds, drill cuttings, well completion fluids, and plugging wastes. Discharge monitoring reports, to be filed in connection with the Drilling Fluids General Permit, require that the operator provide a map showing the location of the land application site and providing acreage covered by the land application. The Erosion and Sediment Control Plan, filed in connection with the Well Work Permit, mandates that the operator identify the location of the pit, thereby establishing the location of the burial of pit contents. Drilling Fluids General Permit, G.6.(g).

Naturally occurring radioactive material (NORM) have been determined not to be present at levels of regulatory interest in West Virginia.

#### **FINDING VI.11.**

The technical criteria for the burial and landfilling of E&P wastes in West Virginia meets IOGCC Guidance section 5.5.

#### **E. Roadspreading**

Roadspreading is not an authorized disposal technique for E&P wastes in West Virginia. Even so, studies have been conducted on the effectiveness and environmental efficacy of the utilization of E&P wastes in roadspreading applications.

#### **F. Commercial and Centralized Facilities**

West Virginia has no commercial facilities dedicated to the management of E&P wastes. Were any such facilities to be permitted, those permits would be handled on an individual basis. OOG technical requirements do not specifically address centralized and commercial facilities, leaving it to the discretion of the agency to determine any specific requirements that should be applied to those facilities. Public participation requirements also do not specifically address commercial facilities.

#### **FINDING VI.12.**

West Virginia's regulatory program does not contain specific requirements applicable to commercial or centralized facilities.



## **RECOMMENDATION VI.12.**

Although West Virginia currently has no commercial or centralized facilities, the review team recommends that OOG establish a specific regulatory program to include technical and public participation requirements that would be applicable to such facilities. IOGCC Guidance section 5.7.

## **VII. WASTE TRACKING**

West Virginia does not currently have any commercial or centralized disposal facilities for exempt E&P wastes. However, statutory authority does exist to manifest UIC-permitted E&P wastes to a commercial facility. The OOG is currently reviewing the first UIC permit for a commercial disposal facility.

### **FINDING VII.1.**

Currently, West Virginia does not differentiate between the tracking of commercial and noncommercial disposal of E&P wastes.

### **RECOMMENDATION VII.1.**

Disposal of E&P wastes at commercial facilities requires an effective waste tracking system. The review team recommends that formal procedures be developed for waste tracking specifically associated with commercial facilities. This would include certification of waste haulers and other tracking requirements given in the IOGCC Guidance sections 4.2.4., 4.2.5., and 5.7.2.3.

For noncommercial operations the OOG currently tracks drilling fluid wastes from each well through the DMR, a part of the Drilling Fluids General Permit issued at the time of the Well Work Permit. The DMR requires information on drilling fluid content and disposition. It also requires the operator to attest to no illegal dumping of fluids.

Other exempt E&P wastes are currently regulated under OWM requirements and are manifested to a permitted treatment facility. Staff indicated that the planned general permit for associated wastes will provide for regulation of other exempt wastes by the OOG.

### **FINDING VII.2.**

Tracking and disposition of exempt E&P wastes are currently handled by both the OOG and OWM. These offices are researching the feasibility of a general permit to cover associated E&P exempt wastes that would be administered by the OOG office.

## RECOMMENDATION VII.2.

Waste tracking of all exempt E&P wastes can be more effective if regulated by one office. The review team supports the continued development of general permit procedures to provide for tracking of associated waste fluids by the OOG. IOGCC Guidance section 4.1.1.

## VIII. DATA MANAGEMENT

The OOG maintains on-line information for 81,568 oil and gas wells (both producing and plugged, and abandoned wells), and 774 UIC wells, which are used for enhanced oil recovery, brine disposal, and solution mining. In addition, OOG, via a contract with the West Virginia Geological Survey, has begun compiling a database on orphan wells, of which 26,000 are now in the system.

On-line information is also maintained on the 2,437 oil and gas operators in the state. Information includes operator address, agent, bonding information, fee liability, and mailing list data. Operators are blocked from receiving additional permits if they lack bonds or agents, have outstanding fees, or have unabated violations. Violations from 1984 to present are tracked on-line.

Permits are tracked in two files: (1) permits in the application phase, and (2) permits that have been granted. Information on permits in the application phase is kept on-line to ensure all requirements are met before a permit is issued. Information maintained on issued permits includes the API number, operator, location data, permit date, and fee and environmental data.

Oil and gas production information from 1984 to the present is also maintained in the system. Annual reports are submitted for each well, with production listed by month. Monthly water (brine) production and injection information is provided for enhanced oil recovery projects, only. Operators may submit production reports via hardcopy or electronic media. Hardcopy data are entered into the system by OOG staff, while electronic data are handled by the company that maintains the centralized data-storage system for OOG.

Ownership-transfer information was automated in 1989. At the time of the review, nearly 20,000 well transfers were entered in the historical file. A computer check is conducted before a transfer of ownership is allowed to take place to ensure all transfer criteria are met.

Also, information concerning spills that have occurred from 1987 to the present is maintained in the system, as is information regarding complaints made to OOG from 1989 to the present.

Inspector summary reports from 1984 to the present have been entered in the system. An entry is made each week by the inspectors, summarizing the number and type of inspections made and the number of enforcement orders written. Because the inspectors work out of their homes, an 800 number service is provided for their use, allowing remote access to the system for entry work or information retrieval.

The public is allowed access to certain information in the computer files. An electronic bulletin board is also provided. Fees are charged only when reports are run on hardcopy.

#### **FINDING VIII.1.**

The data management capabilities of the OOG generally meet all criteria of IOGCC Guidance section 4.2.7.

#### **RECOMMENDATION VIII.1.**

While beyond the scope of the IOGCC Guidelines, the review team recognizes that OOG has developed an exceptional data management system and encourages OOG to continue to expand its use in E&P waste management by:

- (1) Requiring the filing of all water production data. Currently, water production is reported only for enhanced oil recovery wells.
- (2) Consider more frequent filing of production and injection reports or computerization of those reports, or other mechanisms, to help avoid delays in processing the current annual reports.
- (3) Provide an 800 number for increased public access to the database.
- (4) Acquire more complete GIS system support to augment the existing capabilities provided by DEP.

#### **FINDING VIII.2.**

The computer database can be accessed by OOG inspectors, the public, and other state agencies via electronic networks, bulletin boards, and electronic mailboxes.

#### **FINDING VIII.3.**

The computer database has a large number of tracking and diagnostic programs involving new and historical permit, production, fee, and complaint data that allow compliance monitoring and permit blocking.

### **IX. INSPECTION, SURVEILLANCE, COMPLIANCE EVALUATION**

Inspections of E&P operations are currently assigned to districts, and by two supervising inspectors that divide their duties between north and south regions of the State. All of the inspectors and supervisors work out of their homes. The administrative and technical support comes from the Chief of OOG, one geologist, a petroleum engineering technician, a petroleum engineering specialist, an energy administrator, and seven office services support staff. Also, legal services are available to the DEP through the Attorney General's Office. (Also see Section I, Office of the Attorney General, of this report.)

All well applications, well records, and DMRs are date-stamped when received and the information is entered into the computer database, which can then be used to check for adequacy and completeness prior to issuing a permit or releasing a financial assurance. Well records, etc., are returned to the operator if incomplete. Erosion and Sediment Control Plans become part of the permit.

In addition to the required inspections, OOG's inspectors make unannounced inspections on all wellwork activities, routine inspections of wells in their respective districts, and respond to citizen complaints and spills. Reports are completed for each inspection and entered into the computer database from which weekly summaries of inspection/violation activity are generated. A list of wells in need of inspection is also generated. Hard copies of inspectors' reports are kept as part of the well file.

Current performance goals call for a 75 percent inspection rate for all pre-permit (construction site) reviews and drilling permit requirements, and a 98 percent inspection rate for plugging operations; however, OOG states that not all goals are met. About 1,000 routine inspections are conducted annually. (There are approximately 37,000 producing wells in West Virginia.) A significant amount of responsibility is delegated to the field staff to work to meet the goals. For example, an inspector can prioritize inspections based on knowledge of operator compliance history, and the field staff is expected to develop material for court cases.

The 1993 funding level for OOG was \$1,725,000. The funds are derived from a general appropriation, permit fees, bond forfeitures, and UIC program assessments for noncompliance.

#### **FINDING IX.1.**

The OOG inspection, surveillance, and compliance evaluation procedures meet all requirements of IOGCC Guidance section 4.1.2.

#### **FINDING IX.2.**

The procedures developed for the receipt, evaluation, and retention of records are comprehensive.

#### **FINDING IX.3.**

The performance capabilities of the field inspectors are enhanced by detailed inspection forms, a computer network that can be accessed from the inspectors' home offices, biweekly meetings with the supervisors, and procedures described in an Inspector's Manual. In addition, inspection goals are reevaluated on a regular basis through field input, etc. (Note, however, OOG is inadequately staffed to meet its statutory mandate. See Recommendation I.9.)

#### **FINDING IX.4.**

The review team regards the inspection goals as quite good and recognizes the fact that most field staff remain motivated in spite of being overworked. However, because of limited resources, some issues are not being dealt with adequately and there is significant reliance on operator self-inspection (i.e., the frequency of periodic inspections is not always commensurate with risk).

#### **RECOMMENDATION IX.4.**

Although beyond the scope of the IOGCC Guidelines, the review team encourages OOG to consider the following to improve the effectiveness of current field staff:

- (1) Improve communications capability. For example, cellular phones or other means could be used to eliminate communication "dead spots", and separate business telephone lines could be provided in an inspector's home at the state's expense.
- (2) Develop some sort of formal overtime compensation system.

#### **FINDING IX.5.**

The review team finds the procedures for dealing with citizen complaints that are entered into the central computer system to be more than adequate, especially the 14-day followup period.

### **X. ENFORCEMENT**

The OOG has the authority under W. Va. Code §22B-1-3 to issue Notices of Violation (NOVs) along with compliance schedules. NOVs are sent by certified mail to the operator and posted at the wellsite, showing the date by which abatement of the violation is to occur. Procedures are in place for operators who wish to challenge an NOV through administrative or judicial review, or who wish to request extensions of time to abate violations. An OOG inspector can issue an Imminent Danger Order upon the determination that emergency conditions pose a substantial threat to human health and the environment. A Cease and Desist Order can be issued if an action is causing a violation or if a violation has not been abated within the designated timeframe. The OOG has the authority to issue restraining orders or to file suit in state court to prohibit operators from engaging in unauthorized activities that may cause damage to public health or the environment.

Once a violation is found to have occurred, abatement must take place within 7 days; however, this period may be extended to a maximum of 30 days. The inspector performs a final site inspection to ensure that the violation has been abated and prepares a written report which is entered into the computer database.

For violations of OOG program requirements, the OOG has the authority to: (1) assess fines under the Comprehensive Enforcement Plan, (2) withhold approval of new permits, (3) revoke approved permits, (4) forfeit bonds, (5) seek injunctive relief, and (6) seek civil penalties or criminal sanctions, including fines and imprisonment.

A Comprehensive Enforcement Plan has been established which provides an administrative framework for types of violations, the degree of severity, and a point system used to assess fines. A cumulative history of points assessed for violations is maintained on each operator for a two-year period. The OOG has a computer program that tracks an operator's two-year history of fines. An administrative order is issued to an operator having 500 points or more for payment of the assessed fine. The intent of this enforcement scheme, which is only one of several, is to encourage operators to bring operations into compliance rather than to assess penalties for lack of compliance. Every six months, operators are provided with a listing of letters, warnings, and violations, along with an assessed point score. Operators have the opportunity to review their points in an informal conference or in a formal hearing.

#### **FINDING X.1.**

The OOG has the authority to take various enforcement actions such as those contained in Section 4.1.3. of the IOGCC criteria on enforcement.

In determining whether a violation has occurred, OOG, principally through its inspectors, determines whether there has been an upset or bypass. In making such a determination, inspectors rely upon the terms of the Drilling Fluids General Permit, as well as training and experience. No other guidance is provided.

#### **FINDING X.2.**

OOG has no formal guidance, other than the Drilling Fluids General Permit, to assist inspectors in determining if an incident is a violation.

#### **RECOMMENDATION X.2.**

The review team recommends that the OOG issue guidance for utilization by inspectors to ensure consistency in enforcement actions. IOGCC Guidance 4.3.1.4.

## **APPENDIX A**

### **ACRONYMS**





## **LIST OF ACRONYMS**

<b>APCC</b>	<b>Air Pollution Control Commission</b>
<b>API</b>	<b>American Petroleum Institute</b>
<b>DEP</b>	<b>Department of Environmental Protection</b>
<b>DMR</b>	<b>Discharge Monitoring Report</b>
<b>DNR</b>	<b>Department of Natural Resources</b>
<b>E&amp;P</b>	<b>Exploration and Production</b>
<b>EPA</b>	<b>U.S. Environmental Protection Agency</b>
<b>IOGCC</b>	<b>Interstate Oil and Gas Compact Commission</b>
<b>NPDES</b>	<b>National Pollutant Discharge Elimination System</b>
<b>NORM</b>	<b>Naturally Occurring Radioactive Material</b>
<b>NOV</b>	<b>Notice of Violation</b>
<b>OAQ</b>	<b>Office of Air Quality</b>
<b>OOG</b>	<b>Office of Oil and Gas</b>
<b>OWM</b>	<b>Office of Waste Management</b>
<b>OWR</b>	<b>Office of Water Resources</b>
<b>RCRA</b>	<b>Resource Conservation and Recovery Act</b>
<b>SDWA</b>	<b>Safe Drinking Water Act</b>
<b>SPCC</b>	<b>Spill Prevention Control and Countermeasure Plan</b>
<b>UIC</b>	<b>Underground Injection Control</b>



**APPENDIX B**  
**WEST VIRGINIA QUESTIONNAIRE**



State: West Virginia

Completed by: Ted Streit, Chief  
Gene Smith, Geologist

Organization: Division of Environmental Protection  
Office of Oil and Gas

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Nitro, West Virginia 25143

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This questionnaire is being utilized as an important part of the IOCC's review of individual state regulatory programs related to the management of exploration and production (E&P) waste generated by oil and gas operations. The questionnaire is designed to allow a comparison to be made between a state's program and the waste management criteria of the IOCC as contained in "EPA/IOCC Study of State Regulation of Oil and Gas Exploration and Production Waste," Interstate Oil Compact Commission, December, 1990.

## **I. GENERAL**

1. Please include 15 copies of the following:
  - a. Organization charts showing all agencies responsible for the management and disposal of exploration and production wastes, and the structure and function of those agencies.
  - b. All statutes, regulations and orders of any state agencies that are applicable to oil and gas exploration and production waste management and disposal.
  - c. Any memoranda of understanding or similar agreements between state agencies or between the state and any other governmental entities (BLM, EPA, Indian Tribes, local jurisdictions) pertaining to the management and disposal of exploration and production wastes.
  - d. Any written mission statement(s), goals, objectives and policies applicable to oil and gas exploration and production waste management and disposal activities. Please provide the citation to or source of such goals and objectives.

- e. A brief history of production in your state.
2. List applicable state regulations that are used to regulate E&P waste to protect the environment:
- a. 38CSR9, 11, 12, 1, 19, 21, 22  
b. 46CSR2 and 9, 47CSR35 and 38
3. Identify any significant policy statements that have not been incorporated into laws or regulations. (Including groundwater, surface water, agriculture, wildlife or any other environmental protection).
- a. Executive Orders  
b. Comprehensive Enforcement Plan  
c. General Permits  
d. Erosion and Sediment Control Plan  
e. Reclamation of Well Road (specifically, maintenance after seeding).
4. What is the statutory authority upon which your E&P regulatory program is based? What powers and duties are provided in the statute(s)? Do statutes provide for grandfathering of certain E&P activities?
- a. WV Oil and Gas Statutes Chapters 22 and 22B  
- 22B Article 1 - Section of Oil and Gas; Oil and Gas Wells; Administration; Enforcement.  
- 22B Article 2 - Oil and Gas Production Damage Compensation.  
- 22B Article 3 - Transportation of Oils.  
- 22B Article 4 - Underground Gas Storage Reservoirs.  
- 22B Article 5 - West Virginia Abandoned Well Act.
- b. Water Pollution Control Act [WV Code Chapter 20, Article 5A]  
c. Hazardous Waste Management Act [WV Code Chapter 20, Article 5E]  
d. Solid Waste Management Act [WV Code Chapter 20, Article 5F]  
e. Hazardous Waste Emergency Response Fund [WV Code Chapter 20, Article 5G]  
f. Groundwater Act [WV Code Chapter 20, Article 5M]  
g. Air Pollution Act [WV Code Chapter 16, Article 20]  
h. Oil and Gas Conservation Commission [WV Code Chapter 22-8]
5. Does this statutory authority include authority for the promulgation of rules and regulations? Please provide reference to the appropriate section(s).

Yes, 22-1-13  
22B-1-2

6. Do the statutes, regulations, policies or orders contain definitions of terms? Please provide reference to the appropriate sections.

Yes. See beginning of all Statutes and Regulations  
General Permit E.7

7. Please provide the approximate amounts (volume or percent) of E&P waste disposal by each of the following practices?

On an annual basis:

Landfarming - approximately 500,000 bbls.

Disposal Wells - approximately 800,000 bbls.

EOR Injection - approximately 3,000,000 bbls.

All muds and cuttings are either buried or taken to a landfill.

8. Are the levels of funding and staff provided adequate for full E&P Waste management program implementation? Please provide funding levels and total staff complement for E&P waste activities for the past 3 years.

a.	<u>Funding level</u>	<u>Staff level/Office of Oil &amp; Gas</u>	
	1990	<u>\$2,579,322</u>	<u>26</u>
	1991	<u>\$2,510,701</u>	<u>26</u>
	1992	<u>\$1,921,458</u>	<u>25.5</u>
	1993	<u>\$1,725,000</u>	<u>26.5</u>

- b. Describe the methods used for funding the E&P waste program in your state, detailing in particular any funding mechanisms other than a general appropriation from the legislature.

In addition to general appropriation, monies are collected from permitting fees, bond forfeitures and assessment fees. Assessment fees are collected through an in-house enforcement mechanism called the "Oil and Gas Comprehensive Enforcement Plan".

9. Identify the number of personnel and the areas of responsibility in each of the following four categories. For each category of disposal describe classifications, functions and duties, minimum experience and training requirements, additional training available, and adequacy of level of support for the job that needs to be done.

- a. Administration: (Including program planning, evaluation, budgeting, and personnel, permitting, licensing, financial assurance, ownership transfer, public involvement, data collection, public hearings, and management.)

Chief of Office of Oil and Gas - Refer to 22-1.

Director of UIC Program/Environmental Resources Program Manager.

- b. Legal: (Including in-house, agency lawyers, attorney general's office support, independent counsel covering enforcement actions, direction of preparation for enforcement cases, involvement in both procedural and substantive aspects of rulemaking.)

Nine lawyers available to DEP through the Attorney General's Office.

- c. Technical: (Including geologic and engineering evaluation and technical specifications, technical support to legal and field personnel.)

Office of Oil and Gas has an Engineer, two Geologists, a Petroleum Engineering Technician, and a Petroleum Engineering Specialist. Degree in specified field required for Engineer and Geologist. Primary responsibilities are the UIC Program, Abandoned Well Program, Permitting, and Computer Data Management.

- d. Field Inspectors: (Including inspectors on-site representatives to witness critical regulated activities, assembly of evidence for enforcement actions).

The Office of Oil and Gas has thirteen oil and gas field inspectors and two supervising inspectors. Refer to 22-13.

10. List all agencies involved in regulating E&P waste. (please list in descending order their direct involvement). Under each agency, list the E&P operating and/or waste management practices that they have authority to regulate.

- a. Department of Commerce, Labor and Environmental Resources - Division of Environmental Protection (DEP)

1. Location building, drilling, casing, injection, plugging and reclamation.
2. Spill prevention.
3. UIC (awaiting program transfer by U.S. EPA, administer Class II and II wells for DNR).
4. NPDES (when approved by U.S. EPA) solid waste disposal.
5. Hazardous waste disposal (when approved by U.S. EPA).



- b. Water Resources Board
  - 1. In-stream water quality standards.
- c. Bureau of Land Management
  - 1. Well work activity on federally owned lands.
- d. Air Pollution Control Commission (rules only)
  - 1. Emissions from gas plants.

11. Please describe the make-up of any governing board, commission, or other body with oversight or supervisory control over any aspect of your E&P waste regulatory program. Please reference the statute or rule which creates the governing body and describes the qualifications of its members. Does this body merely serve on an advisory basis or does it make substantive decisions about regulatory policies, enforcement actions, or rulemaking?

Appeals go to Water Resources Board and Air Pollution Control Commission.

12. Does the state have primacy for the following federal programs? If yes, specify the state agency(s) that has authority and when was it obtained? If no, specify the state agency(s) that has authority for any program that the state implements in addition to the federally run program.

- a. RCRA - Yes  
Agency - Division of Environmental Protection, November, 1984
- b. NPDES - Yes  
Agency - Division of Environmental Protection, May 10, 1982
- c. UIC - Yes  
Agency - Division of Environmental Protection, January 4, 1984
- d. Various Air Programs

13. Do local ordinances apply to E&P waste in this state?

No.

14. Discuss mechanisms in place in your state for the coordination of E&P waste program activities among the public, government agencies and the regulated industry.

Agency seminars and/or meetings to update the public and regulated industry.

15. Does the E&P waste program require waste segregation of hazardous materials? Give reference to any statutory or regulatory provisions regarding such requirements.

The following are prohibited from entering a pit: Production brine from a production well, unused frac fluid or acid, compressor oil, trash, rubbish, diesel oil, kerosene, halogenated phenol and drilling additives prepared in diesel or kerosene, waste fluids after initial treatment of the pit waste, and radioactive materials. General Permit G.7.

16. Does the E&P waste program allow the disposal of drilling fluids and muds in non-industrial landfills?

- a. If so, under what conditions?

Once material (waste) has left the well-site, then the ultimate disposal would be regulated by the Division of Environmental Protection on a case-specific basis and directed to landfill suitable for that waste. No free liquids are allowed.

- b. Is this disposal method a practice in your state?

To a very limited extent.

17. Does the program contain a hierarchy of preferred E&P waste management options (e.g., source reduction, recycling, treatment, proper disposal)? If so, please describe them.

Yes. General Permit does contain a hierarchy but not specifically stated.

18. What physical and chemical waste analysis requirements are included in the E&P waste management and disposal program?

Submit yearly production figures and monthly volumes for injection wells under the UIC Program. See the "General Permit" for analyses requirements for Predischage and Discharge of drilling fluids. A complete fluid analysis must be submitted in each UIC permit package. Additional requirements for commercial facilities.

19. Has the agency sampled and analyzed E&P waste streams to determine their relative concentrations of naturally occurring radioactive materials (NORM)?

No.

- a. If no investigation has been conducted, does the state have reason to believe, based on information about the geology of the state or other relevant data, that NORM is not found in E&P waste?

Research currently underway.

20. Please describe your state's well plugging and abandonment program, including how it is funded and whether it allows for temporary abandonment over specific time periods.

Refer to 22B-1-19 and 23 concerning the plugging and abandonment program. Operators on a well-by-well basis may obtain approval from the Office of Oil and Gas for temporary abandonment by requesting a "Bona Fide Future Use". Approval can grant up to five years of inactive status. 38CSR21.

## II. PERMITTING RELATING TO E&P WASTES

1. In answering the following questions, please base the responses on specific regulatory requirements, information required in the permit applications, conditions applied when the permit is issued or any informal information supplied to the agency.

- a. Are permits issued separately for specific activities?

Yes.

Well Work - 38CSR18.

UIC - 22B-1-7.

Solid Waste - 47CSR38.

Hazardous Waste - 47CSR35.

Are pits permitted as part of the drilling permit?

Yes.

22B-1-6(d) and 7.

- b. Are permits issued by rule?

Yes.

What types of activities are permitted by rule?

Solid Waste - 38CSR12.

Hazardous Waste - 38CSR13.

- c. Are general permits issued?

Yes.

What types of activities are permitted by a general permit?

Disposal of waste waters generated during exploratory/developmental drilling, well treatment and reworking of wells.

- d. What is the duration of the types of permits issued by the agency?

Well work permits expire in two years from date issued. UIC permits expire in five years.

38CSR18-5.2.7 and 20-5A-13.13.

General Permit up to five years.

- e. 1. Is the compliance status of the applicant a consideration in the determination to issue a permit?

Yes.

All operators must be registered, bonded and have no unabated violations.

38CSR18-5.

2. Is permit compliance a condition to the continued active status of a permit?

Yes.

22B-1-3.

- f. Is a bond or other type of financial assurance required for certain E&P activities?

Yes.

22B-1-26.

22B-5-4.

1. If so, what types of activities are covered by this requirement?

Well work and reclamation on associated sites.

2. If so, what type of assurance is required?

Surety, collateral (cash and securities), letter of credit escrow account, self-bonding or a combination of these.

22B-1-26.

3. If yes, what amount?

\$5,000 single or \$50,000 blanket.

4. Can bond be blanket or single purpose?

Yes.

5. Is there a periodic review of the amount of assurance required to determine sufficiency of financial coverage?

No, bond is fixed. Letters of credit need to be updated yearly.

6. Is there a statutory or regulatory mechanism for forfeiture of financial assurance?

Yes.

22B-1-26(i).

7. If so, what basis must be established to forfeit financial assurance?

Non-compliance of any rule or regulation.

22B-1-26(i).

8. For what purposes can funds be spent that result from the forfeiture of financial assurance?

Forfeitures are deposited into a special reclamation fund. This fund is utilized for the plugging and reclamation of abandoned wells which may not have been plugged or reclaimed or which have been improperly plugged or reclaimed. Also can be used for reclamation of associated well-sites.

22B-1-29.

9. a. What are the procedures for bond release?

If all conditions are met, then bond is released and any cash or collateral securities deposited are returned to the operator with a written notice of release.

22B-1-26(h).

b. What are the conditions for bond release?

All wells must be plugged, reclaimed, and have no outstanding penalties or all wells are transferred. 22B-1-26.

g. Is public liability insurance required?

No.

h. 1. For what activity is a closure plan required?

Reclamation Plan for a well-site and pits.

2. When is a closure plan required?

Operator must reclaim area disturbed in siting, drilling, completing or producing.

22B-1-30.

Operator must have a soil and erosion plan approved prior to permit issuance (Pit Closure). Well plugging as required under 22B-1-19 and 22B-1-30.

3. If so, what must it include (e.g., disposal techniques, analytical tests, etc.)?

Adequate controls to prevent substantial erosion and sedimentation. All soil and erosion plans must show the disposal technique. If the pit fluid is to be land applied, then predischage and discharge composite samples shall be collected for analysis.

4. If permits are by rule, are closure requirements specified?

i. Do state permit requirements differ in different areas of the state?

No.

j. Is more than one agency involved in the permitting process?

No.

k. Is there a specific time period in which the permit application must be either approved or denied?

Yes. Sixty days for a well work permit.  
38CSR18-5.2.9.

1. Are variances to general permitting requirements allowed?

Yes.

1. If so, what are the conditions usually applied to these variances (duration, waste characteristics, construction, siting, operational, closure, etc.)?

Variance may be granted on a site-by-site basis, General Permit G.13. Director may grant a variance from any requirements of Series 18.  
38CSR18-18.

2. May the regulatory agency revise the permit application?

Yes.

- m. Is formal certification required of the accuracy of all information provided to the regulatory agency?

Yes, certification is required for well work permit applications, general permitting documents, plugging affidavits and UIC documents.

### III. SITING

1. Facilities covered

- a. What facilities are covered by the state E&P waste management program? (e.g. reserve pits, production pits, roads, commercial facilities.)

All facilities.

2. Siting restrictions

- a. Are there depth to groundwater siting restrictions in the regulations?

No.

If so, explain.

Artesian water must be diverted away from the pit to an area that will not cause erosion.

General Permit G.10(d).

- b. Are there floodplain siting restrictions in the regulations?

No.

- c. Are there wetland siting restrictions in the regulations?

No.

- d. Are there specific contour siting restrictions?

No.

- e. Are there distance restrictions from drinking water wells, surface waters, residential/commercial buildings, geologic hazards or any environmentally sensitive areas?

Yes.

If so, explain.

No oil or gas well may be drilled within 200 feet of a water well or dwelling without written consent of owner.

22B-1-21.

- f. Are any other siting criteria evaluated as part of the permitting process (e.g., land use, incompatible adjacent uses, aesthetics, etc.)?

Yes.

If so, explain.

1. Does proposed well work constitute a hazard to the safety of persons.
2. Is the soil erosion and sediment control plan adequate.
3. Will damage occur to publicly owned lands or resources.
4. Does the proposed well work fail to protect fresh water sources or supplies.

22B-1-11.



- g. Are there any other general restrictions on where a facilities may be sited?

No.

#### IV. PUBLIC PARTICIPATION

1. a. List the statutory and regulatory citations which provide for public participation in agency E&P waste management and disposal actions.

For well work permits property owners, coal operators, owners or lessees may file comments as to well work, location, or construction.  
22B-1-10, 15, 16 and 17.

Public commenting period for UIC permits.  
20-5A-13.24.

Public participation is extensive for commercial facilities.

General Permit.

- b. Briefly, list the types of agency actions covered by these provisions.

Rule review, permit issuance, modification or denial.  
22B-1-10, 15, 16 and 17.  
20-5A-13.26 and 13.27.

- c. What types of public participation are allowed (e.g., oral or written testimony, public hearings, appeals, etc.)?

Oral and/or written objection to proposed well work, divisional hearings and public hearings.

22B-1-10, 15, 16 and 17.  
20-5A-13.26 and 13.27.

2. Is the public provided with notice of the agency's intention to issue a permit that addresses E&P waste management?

Yes.

If so, please explain.

Prior to the issuance of a UIC permit, a draft permit is submitted to the operator which is accompanied by a public notice. The public notice must be placed in the local newspaper as a Class I legal advertisement.  
20-5A-13.24.

For well work permits, all property owners, coal operators, owners, and lessees of said tract of land upon which the well work is to take place are entitled to comment.  
22B-1-11.

Public commenting period for General Permits.

3. Are notices of concurrently applicable state or federal programs coordinated?

Yes.

4. What notice is given to the public of the issuance of general permits and permits by rule issue of area permits?

Notice is given prior to issuance.

5. Is the public provided a comment period prior to issuance of an E&P waste management permit?

Yes.

If so, please explain.

Thirty-day public commenting period for waste permits (UIC, General).  
20-5A-13.24.

Fifteen-day commenting period for all well work permits excluding plugging which have a five-day period.

What is the duration of that comment period?

See above.

6. Is there an opportunity for public hearings prior to the issuance of an E&P waste management permit?

Yes.

20-5A-13.27.

22B-1-7(a).

7. Are special notice requirements applicable to commercial or centralized disposal facilities?

Yes.

If so, please specify.

8. Does the state statutory and regulatory program provide an appeal mechanism or a court remedy for those aggrieved by an agency action to issue or deny a permit?

Yes.

If so, please explain.

Any person adversely affected by the issuance or refusal of permit to drill or fracture a well are entitled to judicial review.

22B-1-40.

Appeal to Water Resources Board for UIC actions and General Permit.

20-5A-15.

9. a. What are the procedures and costs to the public for obtaining agency records related to E&P waste management?

See invoice for copying costs.

38CSR9

- b. What are the bases for withholding any such information?

All records are open to the public.

22B-1-2(f)

29B-et al does authorize certain exemptions.

10. Are spill, compliance and reporting records available to the public and the regulated industry?

Yes.

11. a. Does the agency have a minimum recordkeeping time period for operators?

Yes.

If so, what is that time period?

Maximum of three years.

Is that time period automatically extended while unresolved enforcement actions are pending?

Yes.

- b. Is the operator required to notify the agency prior to the destruction of maintained records?

No.

12. Does the agency provide for the dissemination of program information to the regulated industry and the public?

Yes.

If so, describe the mechanism used for the dissemination of information (e.g. seminars, newsletters, special mailings, association committees, and incentive programs).

Seminars, association committees, and booklets.

13. Advisory panels

Does the state use advisory groups (e.g. industry, government and public representatives) to obtain input and feedback on the effectiveness of state programs for the management of E&P wastes?

Yes.

If so, please describe.

Currently, there are the following groups meeting on:

Groundwater

Drilling Fluids

Produced Fluids

Administrative

Associated Waste

## V. CONTINGENCY PLANNING

### 1. Applicability

- a. Does the agency have the authority to require an operator to comply with a contingency plan relating to E&P waste management and disposal approved by the state agency?

Yes.

What types of operators are covered under this requirement?

All.

- b. What types of spills and/or releases are covered under the contingency plan requirements?

Any discharge which would be reportable pursuant to 311(b) of the Federal Water Pollution Control Act and any upset or bypass causing effluent limitations to be exceeded under the General Permit and any pit failure which results in a discharge to any surface waters of the state. 38CSR11-3.3.1. - 3.3.3. and 7 through 9.

### 2. Contents

- a. Who must the operator notify in the event of a release?

Division of Environmental Protection.  
38CSR11-3.1.

- b. What is the time requirement for reporting? Please specify.

1. Telephone: Immediately. 38CSR11-3.1.
2. Written: When requested by Chief. 38CSR11-3.2.

- c. What type of information must be provided to the state or federal agency in an operator's spill report. Please describe.

Must provide type of substance and estimated quantity discharged, location, action being taken to contain, clean-up and remove the substance, and any other information the Division requests. 38CSR11-3.2.

- d. Does the state recognize the federal Clean Water Act reportable quantities of oil (sheen) and CERCLA hazardous substances?

Yes.

38CSR11-3-3-1.

If not, does the state have its own reportable quantities that differ from those above?

Yes.

If yes, please describe.

In addition to 311(b).

38CSR11-3.3.2. and 3.3.3.

- e. Does the state have a requirement that spills be immediately contained and cleaned up?

Yes.

If yes, does this pertain only to spills over the reportable quantity or to all spills?

Reportable quantity - 38CSR11-3.4.

Do such requirements apply to spills to land?

No, however, land spills would be required under different authority to be cleaned up.

- f. Does the state have regulations or policies prescribing cleanup and containments?

Yes.

38CSR11-3.4.

If yes, do they differ for land and water?

Yes.

If yes, please describe.

Would need special permit to leave on site.

3. Agency Review

- a. Must the state agency approve an operator's cleanup procedures?

Yes, if requested by the Chief.

- b. What penalties/remedies may be assessed by the state against an operator for failure to report or cleanup a spill of oil, produced water, or other E&P waste?

Civil Penalty of \$10,000 per day and a Criminal Penalty of up to \$25,000 per day and jail sentence not to exceed one year. In the case of groundwater, there are administrative penalties of up to \$5,000 per day.

Also, there are the following:

Cease and Desist Orders

Compliance Orders

Bond Forfeitures

Permit Denial

- c. Are any penalties/remedies mandatory?

No.

- d. Does the state have a procedure or regulation for assessing environmental damage associated with a release of oil, produced water, or other E&P waste?

If yes, please describe.

A sum equal to the cost of replacing game-fish or aquatic life lost may be collected.

20-5A-19(a).

Groundwater - 20-5M.

4. Relationship to SPCC

- a. Has the state adopted the federal spill prevention containment and countermeasure (SPCC) plan requirements?

No.

If not, has the state adopted its own analogous SPCC requirements?

Yes.

Please describe.

State has similar SPCC plan.  
38CSR11-7.

- b. Are there state requirements for dikes or berms around tanks or other production equipment?

Yes.

If yes, please explain.

At each production facility, all equipment must have appropriate containment to prevent any discharge from reaching the waters of the state.  
38CSR11-7.

- c. Are there state requirement or specifications for the construction of production facilities directly aimed at preventing spills or leaks (e.g. corrosion protection, level controls, etc.)?

Yes.

If yes, please explain.

See above.

- d. Are there state requirements for inspection and maintenance of production facilities?

Yes.

If yes, please explain.

All above ground valves, pipelines, etc., shall be examined periodically on a scheduled basis. Saltwater facilities are to be examined often and production facilities shall have a program of flow line maintenance which includes periodic examination.  
38CSR11-7.8-7.9-7.10.



## VI. TECHNICAL REQUIREMENTS

### 1. Pit Construction

- a. Are requirements different for drilling and production pits?

No.

Are there size restrictions?

No. However, the pit should be of a size adequate to maintain adequate freeboard to prevent overflowing.  
General Permit G.10(c).

- b. Are there depth restrictions?

No.

- c. Are there berm height restrictions?

Yes.

If so, specify.

Pit must be constructed to maintain adequate freeboard.  
General Permit G.10(c).

- d. Are there side wall slope restrictions?

Yes, performance standards.

- e. Are there construction material requirements for berms?

Yes.

If so, specify.

Liner shall be used if existing soil is not suitable for the prevention of seepage or leakage.  
General Permit G.10(e).

- f. Are there restrictions based upon site characteristics (e.g. soil, contour, geology, etc.)?

Yes.

If so, specify.

1. Does proposed well work constitute a hazard to the safety of persons.
  2. Is the soil erosion and sediment control plan adequate.
  3. Will damage occur to publicly owned lands or resources.
  4. Does the proposed well work fail to protect fresh water sources or supplies.
- 22B-1-11.

g. Are there liner requirements?

Yes.

If so, answer the following:

1. Are natural material liners allowed?

Yes.

If yes, explain for what type of location, specific materials, permeability restrictions, leak detection requirements, construction techniques, required well depths specified, whether waste compatibility must be demonstrated, etc.

Natural material shall be adequate to prevent seepage or leakage and be free of trees, organic water, large rocks or any other material which could alter the integrity.  
General Permit G.10(e) and (g).

2. Are synthetic materials required?

Yes.

If yes, explain in what type of location, specific materials allowed, thickness restrictions, permeability construction and insulation techniques required, whether leak detection is required, whether waste compatibility must be demonstrated, etc.

Synthetic materials are required if the existing soil is not adequate to prevent seepage or leakage.  
General Permit G.10(e).

- h. Are tanks required in lieu of pits under certain circumstances?

No.

- i. Are there provisions allowing unlined skimming/settling pits?

Yes.

If so, specify.

Liners do not have to be used if the existing soil is suitable for the prevention of seepage or leakage.

- j. Do modifications of the original construction require repermitting?

No. However, any modification shall be approved by the oil and gas inspector.

- k. Does the regulatory agency inspect the construction prior to allowing the pit to be placed into service?

Yes.

38-18-161.1.

- l. Are variances to construction standards allowed?

Yes.

If yes, please describe what procedures and criteria are required to grant these variances.

Chief can approve a variance to account for site-specific circumstances to make more or less restrictive.

General Permit G.13.

## 2. Pit Operation and Maintenance

- a. Are there regulations concerning security?

Yes.

General Permit G.2.

If yes, are there specific requirements directed at protecting wildlife?

No.

Are these specific requests to prevent disposal?

No.

- b. Are there reoccurring inspection schedules that the operator must follow?

No.

- c. Are these requests for periodic sampling and analysis of pit contents?

Yes.

General Permit - Predischarge and Discharge analyses.

If yes, do the requirements vary with the location of the pit or other criteria?

No.

- d. Are there fencing, flagging or caging/ netting requirements for the protection of the public, domestic animals, wildlife, and waterfowl?

Yes.

If so, specify.

A temporary fence shall be constructed to prevent livestock intrusion.  
General Permit G.2.

- e. Are there restrictions concerning minimum freeboard?

Yes.

If so, please explain.

An additional pit must be constructed if an operator is unable to maintain adequate freeboard.  
General Permit G:10(e).

Do restrictions vary based upon the type of material being put into the pit?

No.

- f. Are there groundwater monitoring requirements?

Yes.  
38-18-19.

Are there other monitoring requirements?

Yes.

If yes, specify.

All land application discharges must be monitored prior to discharge to insure that affluent limitations have been met.  
General Permit.

- g. If liners are required, are there requirements to insure its integrity?

Yes.  
General Permit G.10(e).

- h. If some form of leak detection system must be employed, how often must it be checked?

Do not have a leak detection provision in place, but do visually inspect to detect leaks.

- i. Are there time restrictions on operation of the pit?

Yes.

If yes, specify.

Operator has six months after completion of well work to backfill pit and reclaim.

22B-1-30.

Pit must be backfilled within thirty days after discharge.

- j. Are there reporting requirements on the use of pits.

Yes.

If so, explain.

Submit site registration prior to building. All discharges must be sampled and reported.

General Permit A.

- k. Are variances allowed to operation and maintenance requirements?

Yes, can be more or less stringent.

If yes, please state the criteria used to allow the variances.

Chief may approve a variance to account for site-specific circumstances.  
General Permit G.13.

- l. What routine inspections are required to be provided by the operator to assure that pit operational requirements are being met?

PredischARGE and discharge sampling is required of the operator.  
General Permit A.

Are results of these inspections reported?

Yes, all operators must submit a Discharge Monitoring Report (DMR)  
indicating the sampling results.

- m. What are the requirements for removal/disposal/recycling of hydrocarbons that accumulate in pits? Give reference to the applicable statutory or regulatory sections.

For drilling pits, the oil must be skimmed from the pit before sampling  
and discharge and properly disposed of.  
22B-1-30.  
General Permit G.3.

- n. What are the requirements for removal of oil and other wastes from unlined skimming/ settling pits?

See above.

- o. Are produced water pits allowed in your state? If so, what are the requirements for disposal of the water?

No pit may be used for the ultimate disposal of saltwater. Saltwater and  
oil shall be periodically drained or removed and properly disposed of from  
any pit that is retained so the pit is kept reasonably free of saltwater and  
oil.  
22B-1-30(a).

- p. Describe any restrictions concerning the use of percolation pits.

Are not permitted in West Virginia.

- q. Describe maintenance requirements for evaporation pits. Give reference to the applicable statutory or regulatory sections.

Are not permitted in West Virginia.

- r. What restrictions are placed on the use of emergency pits? Is notification of the regulatory agency required when they are used?

DEP inspector shall be notified by the well operator and a new pit constructed to handle any overflow.  
38CSR18-16.4.3.

- s. Is there a prohibition against the use of basic sediment pits for oily wastes? Give reference to the applicable statutory or regulatory sections.

All pits are to be kept free of saltwater and oil.  
22B-1-30.

- t. What limitations are placed on the operation of workover pits?

Any operator doing well work requiring a pit must file a site-registration with DEP.

### 3. Pit Closure

- a. Are closure requirements specified in the statutes or regulations?

Yes.  
22B-1-6.

Are closure requirements specified in the permit?

Yes.

- b. Is a closure plan required to be submitted to the agency?

Yes.

If so, when (with the application, prior to closure, kept at the site, etc.)?

Construction and Reclamation Plan must be submitted with permit application for well work. The Plan must be field reviewed and signed by the District Oil and Gas Inspector prior to permit issuance.

38CSR18-5.2.

Also, have General Permit conditions.

- c. Is an analysis of the pit contents required prior to beginning closure?

Yes.

If so, what are the chemical constituents and analytical techniques specified?

If pit fluids are to be land applied, then the fluids are preserved and analyzed for pH, iron, dissolved oxygen, settleable solids and chlorides in accordance with 40CFR Part 136.

Are liquids and solids required to be analyzed separately?

Yes, liquids are analyzed if to be land applied.

Do the results of the analysis dictate the closure technique allowed?

No, results do dictate which treatment category the fluid is placed in on "DMR".

General Permit A.

- d. Do the requirements for closure vary with the type of mud or drilling fluid used, service the pit was in, age of the pit, location, depth to groundwater, results of groundwater monitoring, depth of well being drilled or other criteria?

No.

- e. Is discharge of pit liquids to surface waters during the closure procedure allowed?

No.

- f. Is annular disposal of pit contents allowed during closure?

No.



- g. Is burial of pit contents, in place, without treatment, allowed during closure?

No.

If so, explain under what criteria?

Drill cuttings may be buried in place after the fluids have been treated and discharged.

General Permit.

- h. Are there specific rules or requirements placed on biological treatment, solidification, dilution burial or other in situ techniques for preparing the pit contents for closure?

Yes.

If so, explain.

All pit fluids to be land applied must be treated in accordance with the guidelines of A1-A4 of the General Permit. The pH must be adjusted and allowed to aerate and settle; effluent limits must be achieved for pH, iron dissolved oxygen, settleable solids and chlorides.

- i. Is landspreading of pit contents allowed during closure?

Yes.

If so, what are the criteria?

Land application is a disposal option for pit fluids. See General Permit.

- j. Are there certain types of pit materials that are specifically required to be removed and disposed off site as part of closure requirements?

Yes.

If yes, please list the specific material or criteria that trigger this requirement.

Before pit treatment, any free or floating oil shall be skimmed off and properly disposed of.

General Permit G.3.

- k. Are there restrictions on the amount of time allowed after operations cease for closure to occur?

Yes.

If so, explain.

Pit must be backfilled and reclaimed within six months after well completion.

22B-1-30.

Pit shall be backfilled within thirty days after discharge.

1. Are records kept at the regulatory agency, or elsewhere, of all pit locations?

Yes, DEP.

If so, are such records available for review by the public?

Yes.

Are record of pit locations kept at the regulatory agency or elsewhere?

Yes, DEP.

How long are records maintained?

All past records from 1929 to present are on file with DEP.

- m. Are variances to the closure requirements allowed?

Yes.

If yes, please explain the criteria used to grant these variances?

Chief can approve a variance to account for site-specific circumstances or can approve a variance which reflects good engineering practices.

General Permit G.13.

CSR18-18.

#### 4. Storage Tanks

- a. Are there construction siting, or enclosure requirements for oil, brine or E & P waste storage tanks utilized in either drilling or production operations?

Yes.

If yes, please explain such requirements and reference any applicable statutes or regulations.

All storage facilities shall have appropriate containment and/or diversionary structures of equipment to prevent discharged oil or other pollutants from reaching the waters of the State.

38CSR11-7.

5. Landspreading

- a. Does the state E&P waste management program provide for waste disposal in which the wastes are spread upon, and sometimes mixed into soils?

Yes.

If so, please explain.

Land application is a disposal option for drilling pit fluids as indicated on form WW-9 "Construction and Reclamation Plan". This form is submitted with all permit applications for well work.

- b. Are such provisions applicable to commercial facilities?

No.

- c. Are permits required? (If not, go to g.)

Yes.

If an operator plans to land apply drilling fluids, then the form WW-9 submitted with the permit application for well work will indicate it.

- d. Does the permit limit disposal to enumerated wastes or waste streams?

Yes, treated drilling fluids only.

- e. What is the duration period for permits?

Well work permit expires within two years of issuance.

38CSR18-5.2.7.

General Permit - up to five years.

- f. Is landowner approval required?

No. Landowner is notified prior to permit issuance and may file comments.  
22B-1-9.

- g. If a formal permit is not required, is notice or approval required prior to landspreading?

Permit is required.

- h. Are detailed waste analyses required to be submitted prior to approval or as part of the permit procedure? (e.g. pH analysis, organic, inorganic, levels, etc.)

Predischarge and discharge analyses are required for pH, total iron, dissolved oxygen, settleable solids and chlorides.  
General Permit E.3.

If so, please state the constituents for which one must analyze and the analytical technique specified.

See 5(h).

Samples are preserved and analyzed in accordance with 40CFR Part 146.  
General Permit E.3.

- i. Are soil analyses required prior to landspreading?

No.

Are soil analyses required after closure of the site?

No.

- j. Are there other criteria for obtaining approval or as part of a permit, (e.g. location restrictions, record keeping, reporting, capacity or loading requirements, etc.)?

Yes.

If yes, please specify.

See General Permit.

- k. Is demonstration of treatment or dilution required for landspreading?

Yes.

If yes, please describe.

Effluent limitations must be met prior to discharge. Treatment and dilution requirements are established through the General Permit.

- l. Please list the specific types of E&P waste that are allowed to be landspread.

Waste waters generated during exploratory/development drilling, well treatment and reworking of wells.

General Permit G.7.

- m. Are variances from the landspreading requirements allowed?

Yes.

If yes, please explain the conditions and criteria for granting such variances.

Variances may be granted by the Chief on site-specific circumstances.  
General Permit G.13.

- n. Comments

Land application is the primary means for disposing of drilling fluids in West Virginia.

6. Burial and Landfilling

- a. Are there requirements for burial and landfilling E&P wastes?

Yes, burial of residues left in pit.  
General Permit G.4(f).

- b. Are permits required? (If not, go to e.)

Yes, General Permit.

- c. Does the permit limit burial and landfilling to enumerated wastes or waste streams?

Yes.

- d. What is the duration period for permits?

General Permits have up to a five year duration period. Well work permits have a duration period of two years.

- e. Is landowner approval required?

No, but is frequently obtained.

- f. If a formal permit is not required, is notice or approval required prior to burial or landfilling?

Permit is required.

- g. Are detailed waste analyses required prior to approval or as part of the permit procedure?

No.

- h. Are there other criteria for obtaining approval or as part of a permit, (e.g. siting restrictions, groundwater monitoring requirements, record keeping, reporting, soil analysis, volume limits, liners, etc.)?

Yes.

If yes, please specify.

- i. Please list the specific types of E&P waste that are allowed to be buried or landfilled.

Drill cuttings and other drilling wastes.

- j. Are variances from the burial and landfilling rules allowed?

Yes.

If yes, please explain the conditions and criteria for granting such variances.

Variance may be granted by the Chief on site-specific basis.

- k. Comments

7. Roadspreading

- a. Are there requirements for roadspreading?

Roadspreading is not a disposal option in West Virginia.

8. Injection

- a. Are there requirements for the injection of E&P wastes?

Yes.

22B-1-7 and 38CSR18.

20-5A.

If so, please list the E&P wastes covered by these requirements.

Drilling fluid and fluids brought to surface in connection with conventional oil or natural gas production and may be commingled with waste waters from gas plants among others.

- b. Are permits required? (If not, go to e.)

Yes, UIC Permit.

22B-1-7.

20-5A.

- c. Does the permit limit disposal to enumerated wastes or waste streams?

Yes.

- d. What is the duration period of permits?

Up to five years.

- e. If a formal permit is not required, is notice or approval required before injection?

Permit is required.

- f. How are these wells classified by the state (or federal EPA if the state does not have primacy)?

Class II Disposal Well.

- g. Are detailed waste analyses required to be submitted prior to approval or as part of the permit procedure?

A detailed analyses of the fluid to be injected must be submitted as part of any UIC permit application.  
38CSR18-7.3.2.3.

If so, please state the constituents for which one must analyze and the analytical technique specified.

No detailed constituents specified in Regs.

- h. Please list the specific types of E&P waste that are not allowed to be injected.

Specific permit restrictions specify wastes that may be injected in each well.

- i. Are there significant differences in the state program when compared with the Federal UIC Program?

No significant differences.

- j. Under what program are surface facilities at UIC Class II sites regulated? Explain.

UIC Program regulates all aspects, including the surface facilities, of all Class II facilities.

- k. Comments

Class II disposal wells are utilized primarily for the disposal of produced fluids.

9. Annular Disposal Not Regulated by UIC

- a. Are there requirements for the annular disposal of E&P wastes?

Annual disposal is not an approved method in West Virginia unless regulated by UIC. West Virginia does not have any UIC permitted annular disposal wells.

10. Other Types of Disposal Allowed



- a. 1. Are other disposal methods, not described above, allowed? (E&P waste treatment prior to NPDES discharges.)

Yes.

2. If so, please list these disposal methods and the specific E&P waste allowed to be disposed by each method.

Options under the General Permit for disposal of drilling fluids only also include reuse and offsite disposal.

- b. Are permits required? (If not, go to e.)

Yes. If an operator plans to reuse the drilling fluids, then the form WW-9 submitted with the permit application for well work will indicate it.

- c. Does the permit limit disposal to enumerated wastes or waste streams?

Yes.

- d. What is the duration of permits?

Well work permit expires within two years of issuance.  
38CSR18-5.2.7.

- e. Is landowner approval required?

No.

- f. If a formal permit is not required, is notice or approval required prior to disposal?

Permit is required.

- g. Are detailed waste analyses required prior to approval or as part of the permit procedure?

No.

- h. Are there other criteria for obtaining approval or as part of a permit, (e.g. siting restrictions, groundwater monitoring requirements, record keeping, reporting, soil analysis, volume limits, etc.)?

Yes.

If yes, please specify.

Any time drilling fluids are to be reused, the operator must indicate on form WW-9 the API number of the well where the fluids are to be used.

- i. Please list the specific types of E&P waste that are not allowed to be handled in this manner.

Any free or flowing oil shall be skimmed off and properly disposed of.

- j. Are variances allowed from the requirements for this type of disposal?

Yes.

If yes, please explain the conditions and criteria used by the state to grant such variances.

Variance may be granted on a site-specific basis.

11. Are there prohibitions on the land disposal of any E&P wastes?

Yes.

If so, please list the specific wastes.

Only authorized E&P waste to be land applied are those listed in the General Permit for produced fluids.

12. If a waste is hauled offsite, are there regulatory requirements for:

- |    |                  |                                   |
|----|------------------|-----------------------------------|
| a. | on-site storage? | <u>Yes</u>                        |
| b. | manifesting?     | <u>Yes, in some circumstances</u> |
| c. | transporting?    | <u>Yes (USDOT)</u>                |

13. Commercial and Centralized Disposal E&P Waste Facilities

- a. Are commercial non-hazardous waste disposal or recycling facilities (including disposal wells or pits) required to be permitted?

Yes.

- b. Are there specific requirements for permitting (siting, disposal methodology, access control, closure, emergencies, bonding, insurance, etc.)?

Yes.

Please explain.

A commercial disposal well would be permitted in the same manner as any other disposal well under the UIC Program except the Division of Environmental Protection would require at least the following:

1) Security provisions to prevent unauthorized dumping; 2) Manifest system; 3) Periodic composite sample analysis of fluid to be injected; and 4) Deep injection zone.

Any other form of disposal or recycling would be permitted under Chapter 20, Article 5A or Article 5F.

- c. Are the permit requirements different for each type of disposal method (e.g., landfill, landfarm, disposal well, pit, etc.)?

Yes.

- d. What is the duration period of permits?

Up to five years.

- e. Does the permit limit disposal to enumerates wastes or waste streams?

Yes.

- f. Are there classifications of E&P wastes for purposes of disposal in commercial or centralized facilities?

No.

- g. Comments

- h. Must waste be analyzed before acceptance by the facility?

Yes.

- i. Is a manifesting system required under the regulations?

No.

If not, do the facilities normally require the use of a manifest anyway?

Yes, would be required as part of the UIC Permit.

- j. Are commercial facilities required to keep records of individual shipments received (i.e. waste type, volume, generator, transporter, etc.)?

Yes, would be required as part of the UIC Permit.

- k. Are there location restrictions for centralized or commercial waste disposal sites near:

- |    |                        |            |
|----|------------------------|------------|
| 1. | Near floodplain?       | <u>Yes</u> |
| 2. | Residences?            | <u>Yes</u> |
| 3. | Ground water?          | <u>Yes</u> |
| 4. | Surface water?         | <u>Yes</u> |
| 5. | Geologic concerns?     | <u>Yes</u> |
| 6. | Other (please specify) |            |

- l. Are liners, leachate collection and removal systems, monitoring wells or air monitoring required?

Yes.

If yes, list which ones and when they apply.

- m. Are commercial facilities required to keep records of individual shipments received (i.e. waste type, volume, generator, transporter, etc.)?

Yes, would be required as part of the UIC Permit.

- n. Comments

Currently, there are no commercial disposal well facilities in West Virginia.

## VII. WASTE TRACKING

1. Does the state E&P waste management program have a waste tracking program in effect which documents the movement of wastes from the site of their origin to their final disposition?

Yes, for the UIC Program and the Experimental Brine Permit.

## VIII. DATA MANAGEMENT

1. How does the state E&P waste management program maintain the information submitted by permittee such as permitting, operating, and monitoring information?

All information submitted by a permittee is kept on file by the DEP. All hard copy files are microfilmed and periodically updated. Information such as permitting, operating, monitoring, reporting, etc., is maintained on DEP's computer system.

2. Are there efforts made to facilitate the sharing of data among responsible state and federal agencies?

Yes.

If so, please describe.

Work is currently under way to connect state agencies' data management systems through GIS (Global Information System). EPA is submitted quarterly reports from DEP on all UIC Program activities. Any information on file with DEP may be obtained upon request.

3. Is the data which is maintained by the state agencies regularly analyzed by both state and federal agencies?

Yes.

Please explain.

All data is analyzed by DEP on a daily and monthly basis. EPA analyzes the UIC Program activities quarterly.

## IX. INSPECTION, SURVEILLANCE, COMPLIANCE EVALUATION

1. Are there procedures for the receipt, evaluation, retention, and investigations for possible enforcement action of all notices and reports required of permittees?

Yes.

Are these procedures established in writing?

Yes.

If so, please explain.

When well records and discharge monitoring reports (DMR) are received in the office, they are date stamped, reviewed, and recorded in the computer. All the information on the DMRs is entered into the computer so that at any time we can check to see if the operator is filing properly. If, when the well records are reviewed, there is data missing they are returned to the operator for corrections. The well cannot be released until the corrections are received.

2. Does the state program have inspection and surveillance procedures that are independent of information supplied by regulated persons to determine compliance? (e.g. surveys, inspection frequency, etc.)

Yes.

If so, please explain.

West Virginia has thirteen oil and gas inspectors who make unannounced inspections of all well work activities. Periodically make routine inspections of wells in their respective districts. Respond to citizen complaints and spills. The UIC Program has devised a compliance review form to be completed during an inspection of any UIC well.

Please describe the record keeping procedures followed with regard to such surveillance and inspection.

Each time an inspection is made, the inspector must complete a report of his findings and submit to DEP. The type of inspection and any pertinent information is entered into DEP's computer system and the hard copy report is kept in the well file.

3. Does the state encourage and have provisions for receiving and investigating citizen complaints?

Yes.

Explain.

Citizen complaints are encouraged and are to be made to the Office of Oil and Gas by phone. The complaint is then given a number and entered into the computer system. Data concerning the complaint is forwarded to the district inspector who must respond by telephone within twenty-four hours and with a report in fourteen days.

How many complaints were received in the last 2 years?

286 in 1991 and 1992.

4. Are procedures available to citizens to resolve their complaints about E&P practices? (File suit against agency or operators, appeal agency actions or other.)

Yes.

Explain.

Informal procedures.

5. Do your statutes or regulations contain right of entry provisions for inspections by state personnel?

Yes.

If so, give reference to the statutory or regulatory requirements.

22B-1-2(17d).

6. Describe or provide a copy of any chain of custody procedures which have been adopted to insure the integrity of any samples collected during inspections.

Departmental (DEP) policy for employee present during sampling to remain with samples until received by laboratory.

**X. ENFORCEMENT (Please be prepared to discuss examples of the following.)**

1. Can the agency issue a notice of violation with a compliance schedule?

Yes.

22B-1-3.

- a. On the average, how many notices of violation does the agency issue each month?

90.

2. Can the agency restrain any person by order or by suit in state court from engaging in unauthorized activity which is causing or may cause damage to public health or the environment?

Yes.

22-B-1-39.

- a. In the past two years, how many restraining orders did the agency obtain?

Two.

3. Can the agency, upon the determination that emergency conditions which pose an imminent and substantial human health or environmental hazard enter and take immediate corrective action after reasonable efforts to notify the operator have failed?

Yes.

- a. Under what specific circumstances has the agency undertaken immediate corrective action in an emergency situation?

Plugging of abandoned wells that pose an imminent danger to human health and/or the environment or taking whatever action necessary to correct the situation. Spill clean-up from well sites.

4. Can the agency enjoin by suit in local courts as the result of a continuing violation of any program requirement or permit condition without necessity of prior revocation of the permit?

Yes.

22B-1-39.

- a. How many times in the last two years has the agency brought suit to enjoin a party from committing a continuing violation?

None.

5. Can the agency require by administrative order or suit in state court, that the appropriate action be undertaken to correct any harm to public health and the environment that may have resulted from a violation of any program requirement, including but not limited to establishment of compliance schedules?

Yes.

22-B-1-39.

- (a) Are uniform, general standards established for such corrective actions, or are standards devised by the agency on a site-by-site basis?



On a site-by-site basis.

6. Can the agency revoke, modify, or suspend any permit upon a demonstration that the permittee has violated the terms and conditions of the permit, failed to pay an assessed penalty, or used false or misleading information or fraud to obtain the permit?

Yes.

22-B-1-28.

- a. In the last two years, how many drill permits, pit permits, or other permits were revoked due to violations of the conditions of the permit or agency rules?

Numerous permits were denied based on outstanding violations.

7. Can the agency assess administrative penalties or seek in court civil penalties or criminal sanctions, including fines and/or imprisonment?

Yes.

- a. Please identify the statutory and regulatory provisions which authorize such penalties.

22B-1-34.

Violation of any provision of statute  
20-5A-17 and 18.

Water Pollution

Oil and Gas Comprehensive Enforcement Plan (CEP).

In-house assessment system

Groundwater - 20-5M.

- b. Are there guidelines for the factors to be considered for the calculation of penalties?

Yes.

Briefly describe the factors to be considered and provide the statutory or regulatory citation.

20-5A-17.

22B-1-34.

- c. How many times in the last two years has the agency assessed and collected penalties, whether civil or criminal in nature?

Twenty from April 1991 to June 1992.

- d. What is the average penalty collected during that time?

\$2,370.00.

- e. What is the total amount of penalties collected in the past two years?

\$47,400.00 collected from April 1991 to June 1992.

8. Can the agency enforce the forfeiture of financial assurance instruments?

Yes.

- a. What is the total monetary amount of bond forfeitures in the last two years?

Approximately \$300,000 was collected in 1989 and 1990. Since that time, not many bonds have been forfeited because the operators and insurance companies have been plugging and reclaiming their wells if the process went to the bond forfeiture stage.

9. What are the appeal rights of the regulated community to seek administrative or judicial review?

22B-1-40.

22B-1-41.

20-5A-15.

- a. In the past two years, have any other non-agency parties brought suit against the agency to force compliance with statutes, rules, policies, or programs?

No.

- b. What was the outcome of such suits (i.e., did the non-agency party prevail)?

10. Are there procedures for inspections, analysis, penalties, record keeping and reporting?