SECTION 7
PUBLIC PARTICIPATION

PUBLIC PARTICIPATION

IN THE

DEVELOPMENT

OF THE

WEST VIRGINIA

UNDERGROUND INJECTION CONTROL PROGRAM

TABLE OF CONTENTS

STATE OF WEST VIRGINIA
DEPARTMENT OF NATURAL RESOURCES
CHARLESTON 25305

JOHN D. ROCKEFELLER IV
Governor

DAVID C. CALLAGHAN
Director

WILLIS H. HERTIG, JR.
Deputy Director

PUBLIC NOTICE

West Virginia Department of Natural Resources'
Proposed Application to Administer
the Underground Injection Control Program

Public Notice Date: September 27, 1982

The West Virginia Department of Natural Resources' Division of Water Resources intends to submit an application to the United States Environmental Protection Agency for approval to administer the Underground Injection Control Program. The Underground Injection Control Program provides for the protection of underground drinking water sources through the regulation of subsurface disposal of fluids by well injection.

This notice provides for a public hearing and comment period on the Division of Water Resources' proposed application.

The public hearing will be held on October 28, 1982 at 7:00 p.m., in the Division of Water Resources' conference room located at 1201 Greenbrier Street, Charleston, WV, 25311.

People wishing to make comments on the proposed application are invited to be present or represented at the hearing. Although oral statements will be accepted, written statements are encouraged for the accuracy of the record.

All comments will be taken into consideration by the Division of Water Resources before submission of the proposed application to the Environmental Protection Agency. Comments must be received by November 8, 1982. Comments should be addressed to:

David W. Robinson
Chief, Division of Water Resources
1201 Greenbrier Street
Charleston, West Virginia 25311

The Division of Water Resources' proposed application contains the following information:

Section 1: Governor's letter requesting Underground Injection Control Program approval.

Section 2: Attorney General's Statement.

Section 3: Memorandum of Agreement between the State of West Virginia and the United States Environmental Protection Agency.

Section 4: Underground Injection Control Program Description.

Section 5: Application for Program Authorization for Class II wells under section 1425, Safe Drinking Water Act.

Copies of the proposed application will be available for public review at location listed below after September 27, 1982.

Water Resources District I Office
1304 Goose Run Road
Fairmont, WV

Water Resources District II Office
High and Depot Streets
Romney, WV

Water Resources District III Office
French Creek Game Farm
Route 20, 12 miles south of
Buckhannon, WV

Water Resources District IV Office
MacArthur (near Beckley), WV

Water Resources Division Main Office
1201 Greenbrier Street
Charleston, WV

Region I Planning & Development Council
1330 Mercer Street
Princeton, WV

Region II Planning & Development Council
KYOVA
1221 Sixth Avenue
Huntington, WV

Region III Planning & Development Council
1426 Kanawha Blvd., E.
Charleston, WV

Region IV Planning & Development Council
500 B Main Street
Summersville, WV

Region V Planning & Development Council
217 Fourth Street
Parkersburg, WV

Water Resources District V Office
694 Winfield Road
St. Albans, WV

Water Resources District VI Office
6321 Emerson Avenue
Parkersburg, WV

DNR Operations Center
Water Resources Elkins Laboratory
Ward Road
Elkins, WV

Region VI Planning & Development Council
201 Deveny Building
Fairmont, WV

Region VII Planning & Development Council
Upshur County Courthouse
Buckhannon, WV

Region VIII Planning & Development Council
One Virginia Avenue
Petersburg, WV

Region IX Planning & Development Council
121 West King Street
Martinsburg, WV

Region X Planning & Development Council
2177 National Road
Wheeling, WV

Region XI Planning & Development Council
814 Adams Street
Steubenville, OH

Copies of the proposed application may be obtained (at a cost of 20¢ per page or $114.40 for the entire application) by contacting the Division of Water Resources, 1201 Greenbrier Street, Charleston, WV 25311. (304)348-7861.

For further information, please contact the Division of Water Resources' Public Information Office at (304)348-7861.

# # # # # #

LIST OF NEWSPAPERS WHICH PUBLISHED THE PUBLIC NOTICE

The Times - West Virginian (Marion County)
Quincy & Ogden
Fairmont, WV 26554

The Panhandle Press (Hancock County)
180 Carolina Ave.
Chester, WV 26034

The Charleston Gazette (Kanawha County)
1001 Virginia St. (State-wide)
Charleston, WV 25301

The Charleston Daily Mail (Kanawha County)
1001 Virginia St.
Charleston, WV 25301

The Wheeling News Register (Ohio County)
1500 Main Street
Wheeling, WV 26003

The Evening Journal (Berkeley County)
207 West King Street
Martinsburg, WV 25401

The Record Delta (Upshur County)
7 North Locust Street
Buckhannon, WV 26201

The Herald Dispatch (Cabell County)
946 5th Ave.
Huntington, WV 25720

The Parkersburg News (Wood County)
519 Juliana Street
Parkersburg, WV 26101

The Beckley Post-Herald (Raleigh County)
341 Prince Street
Beckley, WV 25801

The Nicholas Chronicle, Inc. (Nicholas County)
P. O. Box 503
Summersville, WV 26651

PUBLIC NOTICE
West Virginia Department of Natural Resources' Proposed Application to Administer the Underground Injection Control Program.
Public Notice Date: September 17, 1982
The West Virginia Department of Natural Resources' Division of Water Resources intends to submit an application to the United States Environmental Protection Agency for approval to administer the Underground Injection Control Program. The Underground Injection Control Program provides for the protection of underground drinking water sources through the regulation of subsurface disposal of fluids by well injection.
This notice provides for a public hearing and comment period on the Division of Water Resources' proposed application.
A public hearing will be held October 28, 1982 at 7:00 p.m., in the Division of Water Resources' conference room located at 1201 Greenbrier Street, Charleston, WV 25311.
[illegible] wishing to make comments on the proposed application are invited to be present or represented at the hearing. Although oral statements will be accepted, written statements are encouraged for the accuracy of the record.
Comments will be taken into consideration by the Division of Water Resources before submission of the proposed application to the Environmental Protection Agency. Comments [illegible] received by November [illegible]. Comments should be [illegible] to:
[illegible] Robinson
Division of Water [illegible]
[illegible] Greenbrier Street
[illegible]ston, West Virginia
[illegible] Division of Water Resources proposed application consists of the following information:
[illegible] 1. Governor's letter [illegible] Underground Injection Control Program [illegible]
[illegible] 2. Attorney General's [illegible]
[illegible] 3. Memorandum of [illegible] between the State of West Virginia and the United States Environmental Protection Agency.
[illegible] 4. Underground Injection Control Program [illegible]
[illegible] 5. Application for Program Authorization for [illegible] wells under section [illegible] Safe Drinking Water Act.
[illegible] of the proposed application will be available for public review at locations listed [illegible] after September 27, 1982:
[illegible] Resources District I [illegible]
[illegible] Rya Road
[illegible], WV
[illegible] Resources District II [illegible]
[illegible] Streets
[illegible], WV
[illegible] Resources District III [illegible]
[illegible] Creek Game Farm
[illegible] 20, 12 miles south of
[illegible], WV
[illegible] Resources District IV [illegible]
[illegible] Arthur (near [illegible]), WV
[illegible] Resources Division [illegible] Office
[illegible] Greenbrier Street
[illegible]leston, WV
[illegible] I Planning & Development Council
[illegible] Mercer Street
[illegible], WV
[illegible] II Planning & Development Council
[illegible]OVA
[illegible] Sixth Avenue
[illegible]ington, WV
[illegible] III Planning & Development Council
[illegible] Kanawha Blvd., E.
[illegible]leston, WV
[illegible] IV Planning & Development Council
[illegible] Main Street
[illegible]mersville, WV
[illegible] V Planning & Development Council
[illegible] Fourth Street
[illegible]kersburg, WV
[illegible] Resources District V [illegible]
[illegible]field Road
[illegible] Albans, WV
[illegible] Resources District VI [illegible]
[illegible] Emerson Avenue
[illegible]sburg, WV
[illegible] Operations Center
[illegible] Resources Elkins
[illegible]ratory
[illegible] Road
[illegible]kins, WV
[illegible] VI Planning & Development Council
[illegible] Building
[illegible], WV
[illegible] VII Planning & Development Council
[illegible] County Courthouse
[illegible]hannon, WV
[illegible] VIII Planning & Development Council
[illegible] Virginia Avenue
[illegible]sburg, WV
[illegible] IX Planning & Development Council
[illegible] West King Street
[illegible]sburg, WV
[illegible] X Planning & Development Council
[illegible] National Road
[illegible]eeling, WV
[illegible] XI Planning & Development Council
[illegible] Adams Street
[illegible]benville, OH
[illegible]

AFFIDAVIT OF PUBLICATION

№ 2199

State of West Virginia
County of Marion, to-wit:

I, Joyce Ann Police, being first duly sworn upon my oath, do depose and say that I am Legal Clerk of THE TIMES-WEST VIRGINIAN a corporation, publisher of the newspaper entitled THE TIMES-WEST VIRGINIAN an independent newspaper;

that I have been duly authorized by the board of directors of such corporation to execute this affidavit of publication; that such newspaper has been published for more than one year prior to publication of the annexed notice described below, that such newspaper is regularly published daily except Saturday and Sunday, for at least fifty weeks during the calendar year, in the Municipality of Fairmont, Marion County, West Virginia; that such newspaper is a newspaper of "general circulation," as that term is defined in article three, chapter fifty-nine of the Code of West Virginia, 1931, as amended, within the publication area or areas of the aforementioned municipality and Marion County, that such newspaper averages in length four or more pages, exclusive of any cover, per issue; that such newspaper is a newspaper to which the general public at a definite price or consideration; that such newspaper is circulated to the general public at a definite price or consideration; that such newspaper is a newspaper to which the general public resorts for passing events of a political, religious, commercial and social nature, and for current happenings, announcements, miscellaneous reading matter, advertisements and other notices.

that the annexed notice of Public Notice was duly published in said newspaper once a week for one successive week (Class ____), commencing with the issue of the 29 day of Sept. 19 82, and ending with the issue of the 29 day of Sept. 19 82, and was posted at the front door of the Marion County Court House on the 29 day of Sept. 19 82; that said annexed notice was published on the following dates: Sept. 29, 1982

and the cost of publishing said annexed notice as aforesaid was $57.00

Joyce Ann Police

Taken, subscribed and sworn to before me in said county this 19 day of Oct. 19 82.

My commission expires Jan. 24, 1990

[signature]
Notary Public of Marion County West Virginia

RECEIVED
[illegible]
Public I[illegible] [illegible]

Newspaper Clipping

The State of Ohio

The County of Columbiana

Steven G. Frew being duly sworn, says that he is

The President of the Panhandle Press a newspaper, printed,

published, and of general circulation in said county of Hancock, State of W.Va.,

that the notice, of which is attached a copy, was for 1 consecutive

weeks published in said newspaper, commencing on the 5th day of

October A.D., 1982.

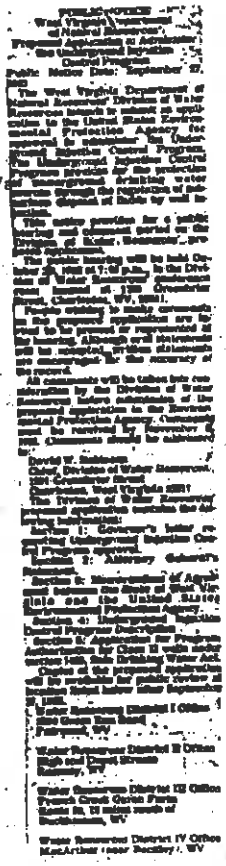
Subscribed by the said Steven G. Frew and by him sworn to

before me, this 5th day of October A.D., 1982.

Printer's Fee $23.20

Notary Public

My Commission Expires: 15, 1985



PUBLIC NOTICE
West Virginia Department of Natural Resources' Proposed Application to Administer The Underground Injection Control Program

Public Notice Date: September 27, 1982

The West Virginia Department of Natural Resources' Division of Water Resources [illegible] to submit an application [to] the United States Environmental Protection Agency for approval to administer the Underground Injection Control Program. The Underground Injection Control Program provides for the protection of underground drinking water sources through the regulation [of] subsurface disposal of fluids [by] well injection.

This notice provides for a public hearing and comment period on the Division of Water Resources' proposed application.

The public hearing will be held on October 28, 1982 at 7:00 p.m. in the Division of Water Resources' conference room located at 1201 Greenbrier Street, Charleston, WV 25311.

People wishing to make comments on the proposed application are invited to be present at [illegible] at the hearing. [Although] oral statements will be accepted, written statements are encouraged for the accuracy of the record.

All comments will be taken into consideration by the Division of Water Resources before submission of the proposed application to the Environmental Protection Agency. Comments must be received by November [illegible]. Comments should be addressed to:

David W. Robinson, Chief, Division of Water Resources, [1201] Greenbrier Street, Charleston, West Virginia 25311

The Division of Water Resources' proposed application contains the following information:

Section 1. Governor's letter requesting Underground Injection Control Program approval

Section 2. Attorney General's Statement

Section 3. Memorandum of Agreement between the State of West Virginia and the United States Environmental Protection Agency

Section 4. Underground Injection Control Program Description

Section 5. Application for Program Authorization for Class II wells under section 1425, Safe Drinking Water Act

Copies of the proposed application will be available for public review at locations listed below after September 27, 1982:

Water Resources District I Office, 1304 Goose Run Road, Fairmont, WV

Water Resources District II Office, High and Depot Streets, Romney, WV

Water Resources District III Office, French Creek Game Farm, Route 20, 13 miles south of Buckhannon, WV

Water Resources District IV Office, MacArthur [illegible], WV

Water Resources Division Main Office, 1201 Greenbrier Street, Charleston, WV

Region I Planning & Development Council, 1220 Mercer Street, Princeton, WV

Region II Planning & Development Council, KYOVA, 1221 Sixth Avenue, Huntington, WV

Region III Planning & Development Council, 1406 Kanawha Blvd. E., Charleston, WV

Region IV Planning & Development Council, 500 B Main Street, Summersville, WV

Region V Planning & Development Council, 317 Fourth Street, Parkersburg, WV

Water Resources District V Office, 604 Whitfield Road, St. Albans, WV

Water Resources District VI Office, 6311 Emerson Avenue, Parkersburg, WV

DNR Operations Center, Water Resources Elkins Laboratory, Ward Road, Elkins, WV

Region VI Planning & Development Council, 201 Deveny Building, Fairmont, WV

Region VII Planning & Development Council, Upshur County Courthouse, Buckhannon, WV

Region VIII Planning & Development Council, One Virginia Avenue, Petersburg, WV

Region IX Planning & Development Council, 121 West King Street, Martinsburg, WV

Region X Planning & Development Council, 3177 National Road, Wheeling, WV

Region XI Planning & Development Council, 814 Adams Street, Steubenville, OH

Copies of the proposed application may be obtained [at a] cost of [illegible] per page or [illegible] for the entire application by contacting the Division of Water Resources, 1201 Greenbrier Street, Charleston, WV 25311, (304) 348 [illegible].

For further information, please contact the Division of Water Resources' Public Information Office at (304) 348 [illegible]

[illegible]

Affidavit of Publication

No. ________

STATE OF WEST VIRGINIA,

Kanawha County, to-wit:

I, Cindy Deem of the

☐ Sunday Gazette-Mail [x] Charleston Gazette, a daily Democratic newspaper [x] Daily Mail, a daily Republican newspaper, published in the City of Charleston, Kanawha County, West Virginia, do solemnly swear that the annexed notice of underground injection control program

was duly published in said paper once a day for one successive day commencing with the issue of the 27th day of September, 1982, and ending with the issue of the 27th day of September, 1982, and was posted at the front door of the Court House of said Kanawha County, West Virginia, on the 28th day of September, 1982.

Dates Published: September 27, 1982

Cindy Deem [signature]

Subscribed and sworn to before me this 27 day of Sept, 1982

____
Notary Public of Kanawha County, West Virginia

My Commission expires October 28, 1991

Printer's Fee $ 65.37

AGGT-7

PUBLIC NOTICE

West Virginia Department of Natural Resources Proposed Application to Administer the Underground Injection Control Program

Public Notice Date: September 29, 1982

The West Virginia Department of Natural Resources' Division of Water Resources intends to submit an application to the United States Environmental Protection Agency for approval to administer the Underground Injection Control Program. The Underground Injection Control Program provides for the protection of underground drinking water sources through the regulation of subsurface disposal of fluids by well injection.

This notice provides for a public hearing and comment period on the Division of Water Resources' proposed application.

The public hearing will be held on October 28, 1982 at [illegible] p.m. in the Division of Water Resources conference room located at 1201 Greenbrier Street, Charleston, WV 25311.

[illegible] wishing to make comments on the proposed [illegible] are invited to be present or represented at the hearing. Although oral statements will be accepted, written statements are encouraged for the accuracy of the record.

All comments will be taken into consideration by the Division of Water Resources before submission of the proposed application to the Environmental Protection Agency. Comments must be received by November [illegible] [illegible]. Comments should be addressed to:

David W. Robinson
Chief, Division of Water Resources
1201 Greenbrier Street
Charleston, West Virginia 25311

The Division of Water Resources proposed application contains the following information:

Section 1. Governor's letter requesting Underground [illegible]

[illegible]

Section 2. Memorandum of Agreement between the State of West Virginia and the United States Environmental Protection Agency

Section 4. Underground Injection Control Program Description

Section 5. Application for Program Authorization for Class II wells under Section 1425, Safe Drinking Water Act

Copies of the proposed application will be available for public review at locations listed below after September 29, 1982:

Water Resources District I Office
[illegible] Run Road
Fairmont, WV

Water Resources District II Office
[illegible] Streets
[illegible], WV

Water Resources District III Office
[illegible]
[illegible]
[illegible], WV

Water Resources District IV Office
[illegible]

Water Resources [illegible] Office
[illegible] Street
[illegible], WV

Region I Planning & Development Council
[illegible] Street
[illegible], WV

Region II Planning & Development Council
[illegible]
[illegible] Sixth Avenue
[illegible], WV

Region III Planning & Development Council
[illegible] Blvd., E.
Charleston, WV

Region IV Planning & Development Council
[illegible]
[illegible], WV

Region V Planning & Development Council
[illegible] Street
Parkersburg, WV

Water Resources District V Office
[illegible] Road
St. Albans, WV

Water Resources District VI Office
[illegible] Avenue
Parkersburg, WV

[illegible] Center
Water Resources [illegible] Laboratory
[illegible] Road
[illegible], WV

Region VI Planning & Development Council
201 [illegible] Building
Fairmont, WV

Region VII Planning & Development Council
Upshur County Courthouse
Buckhannon, WV

Region VIII Planning & Development Council
[illegible] Virginia Avenue
Petersburg, WV

Region IX Planning & Development Council
[illegible] West King Street
Martinsburg, WV

Region X Planning & Development Council
[illegible] Road
Wheeling, WV

Region XI Planning & Development Council
[illegible] Street
[illegible], OH

Copies of the proposed application may be obtained [illegible] per page or $[illegible] for the entire application [illegible] the Division of Water Resources, [illegible] Street, Charleston, WV 25311. [illegible]

For further information please contact the Division of Water Resources Public Information Office at (304) [illegible]

[illegible] Sept. 29

STATE OF WEST VIRGINIA,
COUNTY OF OHIO.

I, [illegible] for the publisher of the

WHEELING NEWS-REGISTER
WHEELING INTELLIGENCER newspapers published in the CITY OF

WHEELING, STATE OF WEST VIRGINIA, *hereby certify that the annexed publication was inserted in said newspaper on the following dates:*

September 29

commencing on the 29th *day of* September 1982

Given under my hand this 29th *day of* September 1982

[illegible]

Sworn to and subscribed before me this 30th *day of* September 19 82 *at* **WHEELING, OHIO COUNTY, WEST VIRGINIA**

[illegible], *Notary Public*

of, in and for **OHIO COUNTY, WEST VIRGINIA.**

My Commission expires [illegible]

109 Legal Notice

PUBLIC NOTICE
West Virginia Department of Natural Resources'
Proposed Application to Administer
the Underground Injection Control Program
Public Notice Date September 29, 1982

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This notice provides for a public hearing and comment period on the Division of Water Resources' proposed application.

The public hearing will be held on October 28, 1982 at 7:00 p.m. in the Division of Water Resources' conference room located at 1201 Greenbrier Street, Charleston, WV, 25311.

People wishing to make comments on the proposed application are invited to be present or represented at the hearing. Although oral statements will be accepted, written statements are encouraged for the accuracy of the record.

All comments will be taken into consideration by the Division of Water Resources before submission of the proposed application to the Environmental Protection Agency. Comments must be received by November 8, 1982. Comments should be addressed to:

David W. Robinson
Chief, Division of Water Resources
1201 Greenbrier Street
Charleston, West Virginia 25311

The Division of Water Resources' proposed application contains the following information:

Section 1: Governor's letter requesting Underground Injection Control Program approval.

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Section 5: Application for Program Authorization for Class II wells under section 1425, Safe Drinking Water Act.

Copies of the proposed application will be available for public review at location listed below after September 29, 1982:

Water Resources District I Office, 1304 Goose Run Road, Fairmont, WV.

Water Resources District V Office, 406 Winfield Road, St. Albans, WV.

Water Resources District II Office, Nash and Depot Streets, Romney WV.

Water Resources District VI Office, 6201 Emerson Avenue, Parkersburg, WV.

Water Resources District III Office, French Creek Game Farm, Route 20, 12 miles south of, Buckhannon, WV.

DNR Operations Center, Water Resources Elkins Laboratory, Ward Road, Elkins, WV.

Water Resources District IV Office, MacArthur Linear Beckley), WV.

Region VI Planning & Development Council, 301 Devony Building, Fairmont, WV.

Water Resources Division Main Office, 1201 Greenbrier Street, Charleston, WV.

Region VII Planning & Development Council, Upshur County Courthouse, Buckhannon, WV.

Region I Planning & Development Council, 1330 Mercer Street, Princeton, WV.

Region VIII Planning & Development Council, One Virginia Avenue, Petersburg, WV.

Region II Planning & Development Council, KYOVA, 1321 Sixth Avenue, Huntington, WV.

Region IX Planning & Development Council, 121 West King Street, Martinsburg, WV.

Region III Planning & Development Council, 1426 Kanawha Blvd., E., Charleston, WV.

Region X Planning & Development Council, 2207 National Road, Wheeling, WV.

Region IV Planning & Development Council, 500 D Main Street, Summersville, WV.

Region XI Planning & Development Council, 814 Adams Street, Steubenville, OH.

Region V Planning & Development Council, 317 Fourth Street, Parkersburg, WV.

Copies of the proposed application may be obtained (at a cost of 10¢ per page or $11.40 for the entire application) by contacting the Division of Water Resources, 1201 Greenbrier Street, Charleston, WV 25311, (304)348 7861.

For further information, please contact the Division of Water Resources' Public Information Office at (304)348 7861.
9.29 (11)

Certificate of Publication

This is to certify the annexed advertisement

[redacted]

[redacted]

[redacted]

appeared for 1 consecutive weeks in EVENING JOURNAL PUBLISHING CO. a newspaper published in the City of Martinsburg, W. Va., in its issue beginning

[redacted]

and ending

[redacted]

THE EVENING JOURNAL

by Peggy Bundetti

Fee $ 6.04

State of West Virginia, County of Upshur, ss:

.....Advertising Manager

Record Delta, a newspaper published at Buckhannon in the said county, do hereby certify that the annexed .....

.....

.....

was published once a week for ..... successive weeks in said Record Delta newspaper published as aforesaid, commencing on the .....

..... days of 19.....

Given under my hand this ..... day of 19.....

.....Advertising Manager

Printers fee $ .....

WEST VIRGINIA, UPSHUR COUNTY, TO-WIT:

Subscribed and sworn to before me this ..... day of 19.....

..... Notary Public.

My Commission expires .....

NOTICE
West Virginia
Department of
Natural Resources'
Proposed
Application
to Administer the
Underground
Injection
Control Program
Public Notice' Date: September 27, 1982

The West Virginia Department of Natural Resources' Division of Water Resources intends to submit an application to the United States Environmental Protection Agency for approval to administer the Underground Injection Control Program. The Underground Injection Control Program provides for the protection of underground drinking water sources through the regulation of subsurface disposal of fluids by well injection.

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All comments will be taken into consideration by the Division of Water Resources before submission of the proposed application to the Environmental Protection Agency. Comments must be received by October 28, 1982.

David W. Robinson, Chief, Division of Water Resources, 1201 Greenbrier Street, Charleston, West Virginia 25311.

The Division of Water Resources' proposed application contains the following information:

Section 1: Governor's letter requesting Underground Injection Control Program approval.

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Water Resources District II Office, High and Depot Streets, Romney, WV

Water Resources District II Office, French Creek Game Farm, Route 20, 12 miles south of Buckhannon, WV

Water Resources District IV Office, MacArthur Drive, Beckley, WV

Water Resources Division Main Office, 1201 Greenbrier Street, Charleston, WV

Region I Planning and Development Council, 1330 Mercer Street, Princeton, WV

Region II Planning and Development Council, 1426 Kanawha Blvd., E., Charleston, WV

Region IV Planning and Development Council, 500 B Main Street, Summersville, WV

Region V Planning and Development Council, 217 Fourth Street, Parkersburg, WV

Water Resources District V Office, 694 Winfield Road, St. Albans, WV

Water Resources District VI Office, 6421 Emerson Avenue, Parkersburg, WV

DNR Operations Center, Water Resources Chkins Laboratory, Ward Road, Elkins, WV

Region VI Planning and Development Council, 201 Deveny Building, Fairmont, WV

Region VII Planning and Development Council, Upshur County Courthouse, Buckhannon, WV

Region VIII Planning and Development Council, One Virginia Avenue, Petersburg, WV

Region IX Planning and Development Council, 131 West Kind Street, Martinsburg, WV

Region X Planning and Development Council, 2177 National Road, Wheeling, WV

Region XI Planning and Development Council, 814 Adams Street Steubenville, OH

Copies of the proposed application may be obtained (at a cost of 20 cents per page or $114.40 for the entire application) by contacting the Division of Water Resources, 1201 Greenbrier Street, Charleston, WV 25311.

For further information, please contact the Division of Water Resources' Public

COPY

NOTICE

PUBLIC NOTICE

[illegible] Virginia Department of Natural Resources' Proposed Application to Administer the Underground Injection Control Program

[illegible] Notice Date September [illegible] 1982

The West Virginia Department of Natural Resources' Division of Water Resources intends [illegible] an application to the United States Environmental Protection Agency for approval [illegible] administer the Underground [illegible] Control Program. The Underground Injection Control Program provides for the protection of underground drinking water sources through the regulation of subsurface disposal of [illegible].

This notice provides for public hearing and comment period [illegible] the Division of Water Resources' proposed application.

The public hearing will be held on October [illegible], 1982 at [illegible] in the Division of Water Resources' conference room located at 1201 Greenbrier Street, Charleston, WV 25311.

People wishing to make comments on the proposed application are invited to be present or represented at the hearing. Although oral statements will be accepted, written statements are encouraged for the accuracy of [illegible].

All comments will be taken into consideration by the Division of Water Resources before [illegible] of the proposed application to the Environmental Protection Agency. Comments must be received by [illegible] 1982. Comments should be addressed to:

[illegible] Robinson, Chief
Division of Water Resources
[illegible] Greenbrier Street
Charleston, West Virginia 25311

The Division of Water Resources' proposed application [illegible] the following information:

[illegible] 1. Governor's letter [illegible] Underground [illegible] Control Program [illegible]
[illegible] 2. Attorney General's [illegible]
[illegible] 3. Memorandum of Agreement between the State of West Virginia and the United States Environmental Protection Agency
Section 4. Underground Injection Control Program Description
Section 5. Application for Program Authorization for Class II wells under section 1425, Safe Drinking Water Act

Copies of the proposed application will be available for public [illegible] at [illegible] locations [illegible] after September 27, 1982

Water Resources District [illegible] Office [illegible] Run Road [illegible], WV

Water Resources District [illegible] Office [illegible] and [illegible] Streets [illegible], WV

Water Resources District [illegible] Office [illegible] Creek Game Farm [illegible] 20 [illegible] miles south of [illegible], WV

Water Resources District [illegible] Office [illegible] Beckley, WV

Water Resources Division [illegible] Office [illegible] Street [illegible], WV

[illegible] Planning & Development Council [illegible]

[illegible] Planning & Development Council [illegible] Avenue [illegible], WV

Region III Planning & Development Council 1626 Kanawha Blvd., E Charleston, WV

Region IV Planning & Development Council 500 B Main Street Summersville, WV

Region V Planning & Development Council 212 Fourth Street Parkersburg, WV

Water Resources District [illegible] Office [illegible] Road St. Albans, WV

Water Resources District [illegible] Office [illegible] Avenue [illegible], WV

[illegible] Operations Center [illegible]

AFFIDAVIT OF PUBLICATION

STATE OF WEST VIRGINIA,
COUNTY OF CABELL, TO-WIT:

I, Fay Lovejoy being first duly sworn, depose and say that I am Legal Clerk for Huntington Publishing Company, a corporation, who publishes at Huntington, Cabell County, West Virginia, the newspaper: The Herald-Dispatch, a independent newspaper, in the morning seven days each week, Monday through Sunday including New Year's Day, Memorial Day, the Fourth of July, Labor Day, Thanksgiving and Christmas; that I have been duly authorized by the Board of Directors of such corporation to execute this affidavit of publication for and on behalf of such corporation and the newspaper mentioned herein, that the legal advertisement attached in the left margin of this affidavit and made a part hereof and bearing number LH-1160 was duly published in

The Herald Dispatch

one time, ~~xxxxx xxweekxxx xxxxx successive weeks~~ commencing with its issue of the 28th day of September, 1982, and ending with the issue of the 28th day of September, 19 82, and was posted at the East door of Cabell County Courthouse

on the 28th day of September, 19 82; that said legal advertisement was published on the following dates: September 28, 1982

; that the cost of publishing said annexed advertisement as aforesaid was $32.49 ; that such newspaper in which such legal advertisement was published has been and is now published regularly, at least as frequently as once a week for at least fifty weeks during the calendar year as prescribed by its mailing permit, and has been so published in the municipality of Huntington, Cabell County, West Virginia, for at least one year immediately preceding the date on which the legal advertisement set forth herein was delivered to such newspaper for publication; that such newspaper is a newspaper of "general circulation" as defined in Article 3, Chapter 59, of the West Virginia Code, within the publication area or areas of the municipality of Huntington, Cabell and Wayne Counties, West Virginia, and

that such newspaper is circulated to the general public at a definite price or consideration; that such newspaper on each date published consists of not less than four pages without a cover; and that it is a newspaper to which the general public resorts for passing events of a political, religious, commercial and social nature, and for current happenings, announcements, miscellaneous reading matters, advertisements and other notices

Fay Lovejoy

Taken, subscribed and sworn to before me in my said county this 28th day of September, 19 82.

My commission expires October 21 - 1986

Laura Fox

Notary Public
Cabell County,
West Virginia

FORM A - 135 (8764)

PUBLIC NOTICE

West Virginia Department of Natural Resources' Proposed Application to Administer the Underground Injection Control Program

Public Notice Date September 27, 1982

The West Virginia Department of Natural Resources Division of Water Resources intends to submit an application to the United States Environmental Protection Agency for approval to administer the Underground Injection Control Program. The Underground Injection Control Program provides for the protection of underground drinking water sources through the regulation of subsurface disposal of fluids by well injection.

This notice provides for a public hearing and comment period on the Division of Water Resources proposed application.

The public hearing will be held on October 28, 1982 at 7:00 p.m., in the Division of Water Resources' conference room located at 1201 Greenbrier Street, Charleston, WV, 25311.

People wishing to make comments on the proposed application are invited to be present or represented at the hearing. Although oral statements will be accepted, written statements are encouraged for the accuracy of the record.

All comments will be taken into consideration by the Division of Water Resources before submission of the proposed application to the Environmental Protection Agency. Comments must be received by November 8, 1982. Comments should be addressed to:

David W. Robinson
Chief, Division of Water Resources
1201 Greenbrier Street
Charleston, West Virginia 25311

The Division of Water Resources' proposed application contains the following information:

Section 1: Governor's letter requesting Underground Injection Control Program approval

Section 2: Attorney General's Statements

Section 3: Memorandum of Agreement between the State of West Virginia and the United States Environmental Protection Agency

Section 4: Underground Injection Control Program Description

Section 5: Application for Program Authorization for Class II wells under section 1425, Safe Drinking Water Act

Copies of the proposed application will be available for public review at locations listed below after September 27, 1982:

Water Resources District I Office
1304 Goose Run Road
Fairmont, WV

Water Resources District II Office
High and [illegible] Streets
Romney, WV

Water Resources District III Office
French Creek Game Farm
Route 20, 12 miles south of
Buckhannon, WV

Water Resources District IV Office
Mt. [illegible] (near Beckley), WV

Water Resources Division Main Office
1201 Greenbrier Street
Charleston, WV

Region I Planning & Development Council
1410 Mercer Street
Princeton, WV

Region II Planning & Development Council
% YOEA
1221 Sixth Avenue
Huntington, WV

Region III Planning & Development Council
1426 Kanawha Blvd., E
Charleston, WV

Region IV Planning & Development Council
500 B Main Street
Summersville, WV

Region V Planning & Development Council
217 Fourth Street
Parkersburg, WV

Water Resources District V Office
[illegible] Winfield Road
St. Albans, WV

Water Resources District VI Office
4321 Emerson Avenue
Parkersburg, WV

DNR Operations Center
Water Resources Elkins Laboratory
Ward Road
Elkins, WV

Region VI Planning & Development Council
[illegible] Building
[illegible], WV

Region VII Planning & Development Council
Upshur County Courthouse
Buckhannon, WV

Region VIII Planning & Development Council
One Virginia Avenue
Petersburg, WV

Region IX Planning & Development Council
121 West King Street
Martinsburg, WV

Region X Planning & Development Council
2177 National Road
Wheeling, WV

Region XI Planning & Development Council
814 Adams Street
Steubenville, OH

Copies of the proposed application may be obtained (at a cost of 20¢ per page or $[illegible] for the entire application) by contacting the Division of Water Resources, 1201 Greenbrier Street, Charleston, WV 25311, (304)348-7861.

For further information, please contact the Division of Water Resources' Public Information Office at (304)348-7861.

Sept. 30

MARY CHEUVRONT

being first duly sworn, says that the application to administer the underground injection control program

hereto attached was printed in the **Parkersburg News** a Daily newspaper published in the City of Parkersburg, Wood County, West Virginia, and posted at the front door of the Court House for One successive weeks, the first publication and posting thereon being on the 30 day of September 1982, and subsequent publication on the day of 19 , the day of 19 , the day of 19 , the day of 19 , and the day of 19

Printer's Fee $ 33.00

660 words @ .05

Mary F. Edwards (Marcia Moore)

Subscribed and sworn to before me this 30 day of September 19 82

[signature] Notary Public for Wood County, West Virginia

My commission expires 7-21-92

Parkersburg Printing Co.

AFFIDAVIT OF PUBLICATION

BECKLEY NEWSPAPERS INC.

BECKLEY, WEST VIRGINIA 25801

September 30, 19 82

STATE OF WEST VIRGINIA,

COUNTY OF RALEIGH, to wit:

I, Frank D. Wood being first duly sworn upon my oath, do depose and say that I am Adv. Dir. of Beckley Newspapers Inc., a corporation, publisher of the newspaper entitled Beckley Post-Herald, a Republican newspaper; that I have been duly authorized by the board of directors of such corporation to execute this affidavit of publication, that such newspaper has been published for more than one year prior to publication of the annexed notice described below; that such newspaper is regularly published daily, except Sunday, for at least fifty weeks during the calendar year, in the Municipality of Beckley, Raleigh County, West Virginia; that such newspaper is a newspaper of "general circulation," as that term is defined in article three, chapter fifty-nine of the Code of West Virginia, 1931, as amended, within the publication area or areas of the aforesaid municipality and county; that such newspaper averages in length four or more pages, exclusive of any cover, per issue; that such newspaper is circulated to the general public at a definite price of consideration, that such newspaper is a newspaper to which the general public resorts for passing events of a political, religious, commercial and social nature, and for current happenings, announcements, miscellaneous reading matters, advertisements and other notices; that the annexed notice of PUBLIC NOTICE
(Description of notice)

was duly published in said newspaper once a week for one successive week (Class I), commencing with the issue of the 30th day of September, 19 82 and ending with the issue of the 30th day of Sept., 19 82 (and was posted at the ______ on the ___ day of ______, 19 __); that said annexed notice was published on the following dates: September 30th and that the cost of publishing said annexed notice as aforesaid was $ 42.26

Signed Frank D. Wood

Taken, subscribed and sworn to before me in my said county this 30th day of September, 19 82

My commission expires March 1, 1991

Martha E. Dickerson

Notary public of Raleigh County, West Virginia

P-H

COPY OF PUBLICATION

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West Virginia Department of Natural Resources' Proposed Application to Administer the Underground Injection Control Program
Public Notice Date September 30, 1982

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David W. Robinson, Chief, Division of Water Resources, 1201 Greenbrier Street, Charleston, West Virginia 25311

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Section 4: Underground Injection Control Program Description.

Section 5: Application for Program Authorization for Class II wells under section 1425, Safe Drinking Water Act.

Copies of the proposed application will be available for public review at locations listed below after September 27, 1982.

Water Resources District I Office, 1304 Goose Run Road, Fairmont, WV

Water Resources District II Office, High and Depot Street, Romney, WV

Water Resources District III Office, French Creek Game Farm, Route 20, 12 miles south of Buckhannon, WV

Water Resources District IV Office, MacArthur (near Beckley), WV

Water Resources Division Main Office, 1201 Greenbrier Street, Charleston, WV

Region I Planning & Development Council, 1336 Mercer Street, Princeton, WV

Region II Planning & Development Council, [illegible] 1221 Sixth Avenue, Huntington, WV

Region III Planning & Development Council, 1070 Kanawha Blvd., Charleston, WV

Region IV Planning & Development Council, 500 B Main Street, Summersville, WV

Region V Planning & Development Council, 217 Fourth Street, Parkersburg, WV

Water Resources District V Office, 406 Winfield Road, St. Albans, WV

Water Resources District VI Office, 6321 Emerson Avenue, Parkersburg, WV

DNR Operations Center, Water Resources' Elkins Laboratory, Ward Road, Elkins, WV

Region VI Planning & Development Council, 201 Deveny Building, Fairmont, WV

Region VII Planning & Development Council, Upshur County Courthouse, Buckhannon, WV

Region VIII Planning & Development Council, One Virginia Avenue, Petersburg, WV

Region IX Planning & Development Council, 121 West King Street, Martinsburg, WV

Region X Planning & Development Council, 2177 National Road, Wheeling, WV

Region XI Planning & Development Council, 814 Adams Street, Steubenville, OH

Copies of the proposed application may be obtained (at a cost of 70¢ per page or $114.62 for the entire application) by contacting the Division of Water Resources, 1201 Greenbrier Street, Charleston, WV 25311, (304) 348-7861.

For further information please contact the Division of Water Resources.

PUBLIC NOTICE

West Virginia Department of Natural Resources' Proposed Application to Administer the Underground Injection Control Program.

Public Notice Date: September 27, 1982

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Water Resources District IV Office, MacArthur, (near Beckley) WV

Water Resources Division Main Office, 1201 Greenbrier St., Charleston, WV

Region I Planning and Development Council, 1330 Mercer Street, Princeton, WV

Region II Planning and De- [illegible]

Greenbrier Street, Charleston, WV 25311. (304) 348-7861

For further information please contact the Division of Water Resources' Public Information Office at (304) 348-7861.

9-30 1t

...

AS CHRONICLE, INC.

, West Virginia 26651

FID 55-0366472-7

I, Leatha Heal, Editor of The Nicholas Chronicle, Inc., a weekly newspaper published at Summersville in the County of Nicholas, and State of West Virginia, do certify that the hereto attached .... Public Notice- West Virginia Dept. of Natural Resources' Proposed Application to Administer the Underground Injection Control Program ....

was published in said newspaper once each week for ... [illegible] ... **successive weeks commencing on the** ... [illegible] ... **day of** ... [illegible] ..., **19**.82.

Given under my hand this ... [illegible] ... **day of** ... [illegible] ... **19**...82

By [signature], **Editor**

Fee for Publication:

....[illegible].... **words at** ....[illegible].... **¢ per word, $**....38.88....

WEST VIRGINIA
GEOLOGICAL AND ECONOMIC SURVEY

Robert B. Erwin, *Director*
and *State Geologist*

P. O. Box 879
Morgantown, WV 265070879
304/594-2331

Offices at Mont Chateau
Mont Chateau Road
Exit 10 (Cheat Lake) off U.S. 48

IN REPLY REFER TO:
00/14120-18/0826

October 22, 1982

Richard M. Melvin, Engineer
Division of Water Resources
Department of Natural Resources
1201 Greenbrier Street
Charleston, WV 25311

Dear Rick:

Enclosed are the pages of the Proposed Application to Administer the Underground Injection Control Program upon which we have comments.

Three members of our staff made comments, Douglas G. Patchen (red), Peter Lessing (black) and Larry D. Woodfork (blue). Several others on the staff, including me, read the draft with no additional significant comments. If you have questions concerning comments you can contact the individuals directly.

I would like to strengthen three comments noted on the manuscript copy:

1) Pages 42 and 44: The box on the flow charts indicating telephoned comments by the Geological Survey should be deleted. We will not submit comments to the record in such a manner.

2) Pages 87 and 89: It is extremely important that maps, cross-sections, and other pertinent geological information required be prepared by a qualified professional geologist who presumably should know what he or she is doing.

3) Page 25: Inasmuch as an understanding of the physical setting (the subsurface) is basic to the success of the program, it is necessary to have trained and experienced geologists employed to administer it. Such expertise is clearly not shown in the preparation of this manuscript.

The Geological Survey will be happy to assist you in any way that we can within our means in carrying out the program.

Sincerely yours,

Robert B. Erwin

RBE:ljp

Enclosure

xc: Larry D. Woodfork
Douglas G. Patchen
Peter Lessing

RECEIVED
OCT 26 1982
Division of Water Resources
Hazardous Waste
Ground Water Branch

ADMINISTRATIVE OVERVIEW OF THE PROGRAM

A. Scope, Structure, Coverage and Processes

Ground water is a valuable resource in West Virginia. Approximately fifty percent of the population obtains drinking water from ground water sources. Community ground water systems serve 38.3% of the State's population (512 of the total 770 community water systems). Although the remaining community water systems depend primarily on surface water, most surface water originates from ground water (especially during low flow periods). The rural population uses individual water systems which rely almost exclusively on ground water. Ground water is rarely treated, except for chlorination, being presumed to be free from the impurities associated with surface water since it comes from deep within the earth (Miller, 1981). Communities which depend upon ground water and homeowners with private wells can suffer a severe economic hardship if their source of ground water is lost due to contamination. Also, cleanup of an aquifer which has been contaminated by synthetic organic chemicals, for example, is almost never physically or economically feasible (Miller, 1981).

relatively shallow, see base of Fresh Water map

Proper regulation of underground injection of wastes is crucial to assure the integrity of ground water resources in the State. The number of permit applications for injection of industrial and hazardous wastes is expected to increase with any expansion of the chemical industry. Also, economic incentives now exist for investment in enhanced recovery projects in the oil and gas industry. The State's Underground Injection Control (UIC) Program is designed to prevent these and other injection activities from contaminating Underground Sources of Drinking Water (USDW's).

The State UIC Program will regulate all five classes of wells as defined in Section III,A of this Program Description. This will be accomplished by the procedures described in Section I,B of this Program Description and in

the region. The intensity of folding and the prevalence of faulting may be much greater beneath the surface in portions of the Appalachian Plateau area than is apparent at the surface (ORSANCO, 1973).

The Appalachian Plateau of West Virginia (Appendix B) has been tectonically active for one billion years. During this period there have been many significant events of deformation, the earliest being the Grenville orogeny during the Pre-Cambrian ERA (approximately one billion years ago). The intense igneous activity associated with this event formed what is known as the basement structure. Several major fault zones are known to exist within this basement structure as a result of deformation related to the igneous activity. These major fault zones affected subsequent sedimentation in the sense that displaced basement structure would institute differential sedimentation and broad areas of relief. These basement faults have been reactivated throughout geologic time by tectonic processes and have propagated extensive and often undefinable fracture networks. Most of the surface faults, in existence today, were formed by the reactivation of the Cambrian age basement faults during the folding of the Appalachian Mountains (upper Paleozoic period).

These complex fracture networks extend westward across the Appalachian Plateau into Ohio and Kentucky. There is a recent case in eastern Kentucky in which hydrocarbon recovery from the Devonian shales caused pressure declines in the reservoir rock over several counties. This is evidence of an interconnecting network of fracture permeability. These fractures are not limited by lithologic variations in stratigraphic sequences, but occur at depths in excess of 4,000 feet and often times propagate to the surface. At extreme depths, compressional forces of overlying strata may seal these fractures, but in [many] instances they remain open along their entire length. The nature and extent of these fractures has not been f-

④ Very rare to remain open, especially along entire length. Usually are closed due to compaction or mineralization. Incomplete mineralization often causes short segments of the fracture to remain open. Very misleading statement.

defined. This subject is under investigation by oil and gas companies, and earth scientists in the State.

The geology of the Valley and Ridge Province in eastern West Virginia (Appendix B) presents several complexities which prohibit underground injection of waste. Depth to the Pre-Cambrian crystalline basement is ~~less than 1400~~ feet in some locations, thus deep disposal zones with sufficient permeability cannot be found. The sedimentary rocks overlying the basement in these areas consist of ⑦ thick limestone with solution cavities and extensive faulting and fracturing. No confining layer exists in some areas. There have been 97 earthquakes in the last 100 years in eastern West Virginia, some with sufficient force (Modified Mercalli Scale rating of VI) to damage well casing and open fractures in the confining layers above an injection zone. Eastern West Virginia is located in Seismic Risk Zone Two (Algermission, 1969), in which moderate damage may be expected from seismic disturbances in the Blue Ridge area. Eastern West Virginia is "generally unfavorable" for underground injection (Smith, 1979).

Horizontal variability in the thickness of either the injection zone or the confining layer may jeopardize safe injection of industrial waste. The dynamic environment which existed during the deposition of sedimentary rock in the State resulted in unconformities and many lateral variations in the stratigraphic sequence. ⑧ Commonly, confining layers may diminish in thickness or even "pinch out", increasing the likelihood of upward migration of injection fluids. ⑨ Likewise, the injection zone may diminish in thickness or "pinch out", leaving less storage space than anticipated for the injection fluids.

Underground fluid movement in West Virginia is dominated by fracture flow systems. Fractures are a common yet largely unpredictable occurrence. Thus, even extensive geologic research may not reveal fractures in what

① 0-1400

⑦ also dolomite, shale, & some sandstone. Highly folded, faulted & fractured.

⑥ NO only 5 in last 200 yrs. (in) E. W. Va.

⑧ never having defined "confining layers" in terms of a named formation or formations, this is a difficult statement to defend

⑨ d. He

(10) True. However, the amount of fracturing in the same strata will be for different lithologies is known. Thus, brittle shales will be highly fractured between 2 relatively unfractured limestones. Chert fractures more than overlying or underlying limestone; calcareous sandstones less than siliceous sandstones.

may be thought to be a confining layer. Because it is difficult to (10) determine the extent of fracturing within any given strata, the integrity of a confining layer cannot be determined. In other words, the upward migration of injection fluids is always a possibility.

As an additional example of the uncertainty involved in injecting waste, a case history analysis was used to evaluate the effectiveness of underground injection of industrial waste. Several industrial waste injection wells were issued permits by the Division of Water Resources during the 1970's. The wells were located on the Appalachian Plateau in western West Virginia. There were no known geologic hazards associated with the well locations (i.e., seismic activity, shallow depth to basement, lack of confining layers, and major faults).

During the operation of the wells, the following situations arose:

1. The proposed disposal formation lacked sufficient permeability to accept the wastes, even after acid treatment and hydraulic fracturing.
2. Wastes from nearby injection wells entered the borehole of a well under construction, and moved up the borehole after displacing the drilling fluid. Which well?
3. Several casing leaks appeared in one well. More than three years passed before the leaks were finally located and plugged. The leaks appeared above the injection zone.

Was this the DuPont well that was shut in? If so, natural gas was the problem here.

4. One well was operating at an injection pressure which was twice the maximum bottom hole injection pressure specified in the permit. Excessive injection pressure can lead to fracturing of the overlying formation and vertical fluid migration.
5. Borehole collapses in one well resulted in moving up the borehole to select another injection zone.

6. During the permit process, an applicant stated that the injection zone would be located at a depth of 5,400 feet. Due to a variety of circumstances (lack of permeability, borehole collapse, etc.) the injection zone when operation began was only 3,500 feet. which well? one of Du Pont?

Because geologic uncertainty exists, anytime waste is injected, it is important that the State stress a strong permit review process to assure, before underground injection begins, that waste will remain where it is placed. The State will consider first (1) overlying + underlying beds w/ a vertical dip would confine fluid the vertical confining beds, areal tectonics, and sedimentary environment, and then the reservoir characteristics. This approach was recommended by the Interstate Oil Compact Commission (1969). The State will also require extensive monitoring by additional wells? once underground injection begins in order to detect any upward migration of wastes as ly as possible, if it should occur. (11) Who will make these determinations?

Justification will be required prior to injection of industrial wastes. Disposal alternatives such as chemical, physical and biological treatment will be emphasized as preferred. Generally, a well will not be permitted if there are other methods of treating the waste (economics will not be considered in making this decision) (Smith, 1979). Underground injection has been considered a favorable disposal alternative due to its cost compared with other disposal methods (Mohr and O'Brien, 1973).

B. Description of the Organization and Responsibilities of the State Agencies Involved in Administering the UIC Program

The State intends to obtain authorization for the West Virginia UIC Program by means of existing statutes. These statutes are the Water Pollution Control Act (Chapter 20, Article 5A of the West Virginia Code, as ended), the Hazardous Waste Management Act (Chapter 20, Article 5E of the State Code, as amended), and the Oil and Gas Laws (Chapter 22, Articles 4 and 4A of the State Code, as amended).

There are four State agencies involved in the State UIC Program. The Division of Water Resources (DWR) issues permits to all classes of wells and is the lead agency in development and implementation of the UIC Program. The Department of Mines Office of Oil and Gas and the Oil and Gas Conservation Commission have the primary responsibility for implementation of the Class II portion of the UIC Program under an Application for Program Authorization under Section 1425 of the Safe Drinking Water Act. The West Virginia Geological and Economic Survey provides information on the geology of the State to the above agencies.

The DWR is the lead agency as designated in the Memorandum of Agreement (MOA) between the State and the U.S. Environmental Protection Agency (EPA). An organizational chart of the Division is given in Table I-1. The Hazardous Waste/Ground Water Branch of the Division will function as the primary contact between the State and the EPA. A Branch activity chart is given in Table I-2. Table I-3 shows the internal organization of the Branch. Personnel are assigned to UIC activities as described in Table I-4. The Branch Head will coordinate the functions of the participating agencies. Required reports and other pertinent information needed to assure inter-agency communication and cooperation will be forwarded via the Branch Head to the Groundwater Protection Section, Water Supply Branch, EPA Region III.

The Hazardous Waste/Ground Water Branch will be responsible for permitting, compliance evaluation and enforcement for Class I, III, IV and V wells. In addition, the Branch will be responsible for assessment of Class V wells and for the ground water characterization studies which are contracted to the U.S. Geological Survey (Section II,B of this Program Description).

The required data and program progress reports for the Class II portion of the UIC Program will be submitted to the Branch so that appropriate

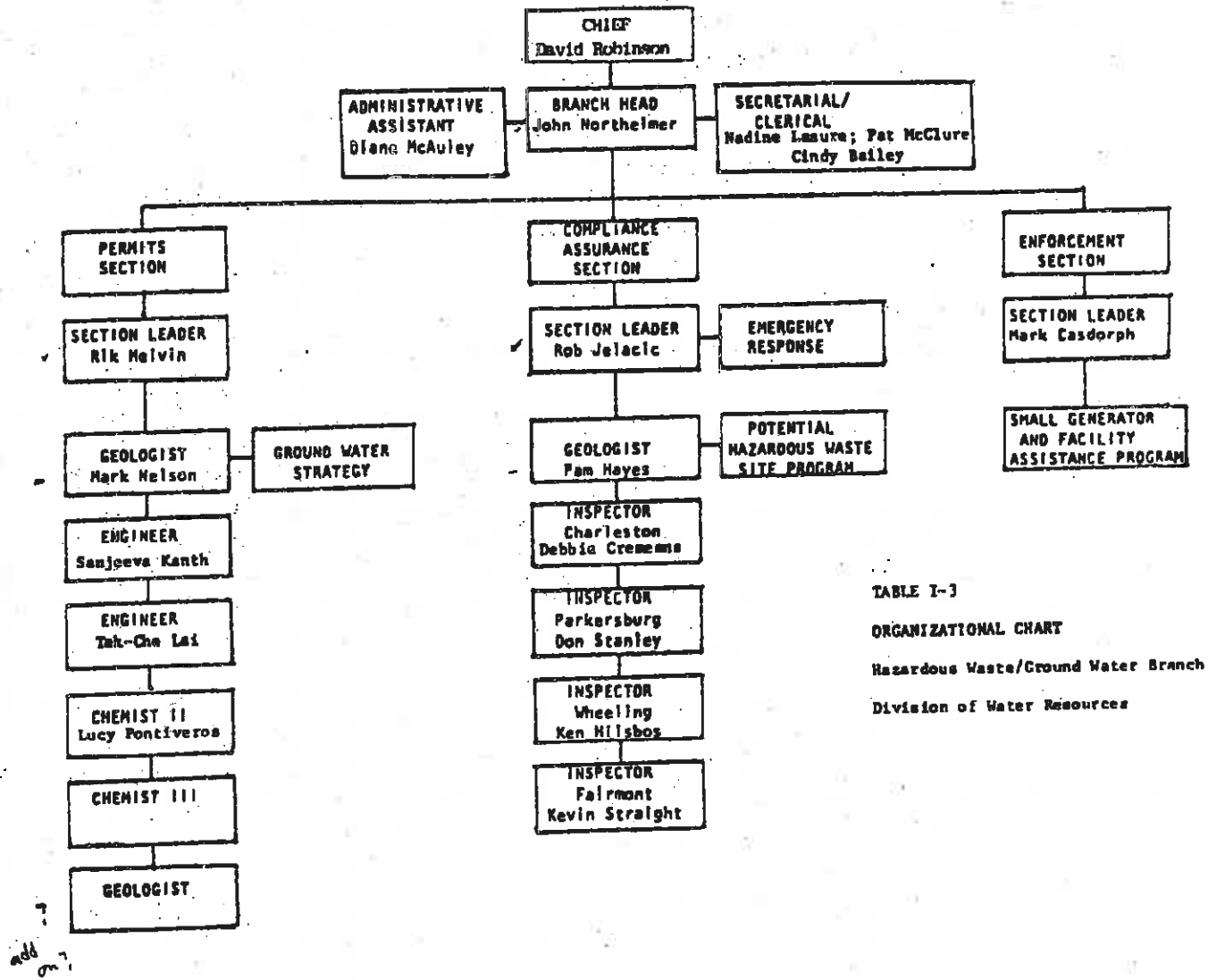


TABLE I-3

ORGANIZATIONAL CHART

Hazardous Waste/Ground Water Branch

Division of Water Resources

agencies which will implement the UIC Program and the State Department of Health. Ground water strategy is coordinated through the Planning Branch of the DWR. Response to ground water contamination problems is coordinated with the Health Department through the Hazardous Waste/Ground Water Branch of the DWR (Appendix E). Technical support for hazardous waste contamination of ground water is provided by the EPA through the DWR.

C. Staffing and Funding Requirements

The DWR staffing requirements are listed in Table I-4. The program administrator will be in charge of overseeing field investigations, reports, compliance monitoring and enforcement. The geologist will assess subsurface strata environments for adequacy as disposal & confining zones, interpret geophysical logging data, assess groundwater contamination potential and make reports regarding geological hazards relating to underground injection. The engineers will assess the adequacy of well construction, borehole injection pressures and other factors relating to reservoir engineering. The chemist will assess compatabilities associated with the injection process. Inspectors will conduct field reconnaissance of injection sites and assure compliance with applicable regulations of the UIC program. Permits will be reviewed by the engineers, the chemist and the geologist. The Class II program staff requirements are shown in Tables I-5 and I-6.

Regarding possible funding cuts, before core program elements would be cut, the activity most likely to have its funding reduced would be the contractual work with the United States Geological Survey (USGS) to characterize ground water in the State. This would be done to avoid cuts in the basic program implementation activities such as permit review, compliance assurance and enforcement.

All UIC Program positions at the Hazardous Waste/Ground Water Branch are currently filled. The Oil and Gas Conservation Commission has a vacancy in the engineering position. Itemized costs for development and

how can fund. Vac.

II. THE PROTECTED RESOURCE

A. Definition of Underground Source of Drinking Water

The definition of an underground source of drinking water in the UIC Program was adopted verbatim from the federal definition in 40 CFR Part 146, as amended. This definition is located in Section 2.00 of the State UIC Regulations:

> "Underground source of drinking water" (USDW) means an "aquifer" or its portion:
>
> (a)(1) which supplies any public water system; or
>
> (2) which contains a sufficient quantity of ground water to supply a public water system; and
>
> (i) currently supplies drinking water for human consumption; or
>
> (ii) contains fewer than 10,000 mg/l total dissolved solids; and
>
> (b) which is not an exempted aquifer.

The Chief of the Division of Water Resources may identify and must protect (except where exempted) as an underground source of drinking water, all aquifers or parts of aquifers which meet the definition above. Even if an aquifer has not been specifically identified by the Chief, it is an underground source of drinking water if it meets the above definition.

Another definition which should be mentioned here is that of "water resources" under the State Water Pollution Control Act. It clearly includes the ground water in USDW's:

> "Water resources," "water" or "waters" shall mean any and all water on or beneath the surface of the ground, whether percolating, standing, diffused or flowing, wholly or partially within this State, or bordering this State and within its jurisdiction, and shall include, without limiting the generality of the foregoing, natural or artificial lakes, rivers, streams, creeks, branches, brooks, ponds (except farm

ponds, industrial settling basins and ponds and water treatment facilities), impounding reservoirs, springs, wells, water courses and wetl

B. Identification and Description of USDW's

Groundwater systems in the Appalachian Plateau of West Virginia (Appendix B) exist in complex sequences of confined aquifers, confining beds and free-flowing unconfined aquifers. These different systems are caused by alternating permeable and impermeable layers made up of shales, sandstones, siltstones, and coals. The groundwater flow regime for these systems is further complicated by varying degrees of permeability. Permeability exists both as primary, intergranular pore space within the rock, and secondary openings created after deposition, fractures and faults. Of these, secondary permeability is the most significant. Wells which penetrate fractures will be those which yield adequate amounts of drinking water. In the Valley and Ridge Province (Appendix B) of eastern West Virginia the flow and occurrence of groundwater is controlled by solution enlarged openings (karst) which exist in the vast limestone deposits. All of these ground water systems are recharged in the upland areas between streams and by leakage through confining beds. Discharge occurs from springs and surface seepage (Heath, 1982).

(F) Only if there's water. (V) only in some cases

The State has been working within the UIC Program to identify and characterize ground water resources in West Virginia. This project is no simple task due to the presence of alluvial aquifers, perched water tables, a predominance of fracture-flow systems, large karst areas and the complex folding and faulting present in the eastern portions of the State. This hydrogeologic complexity has necessitated several different projects to describe the State's ground water resources.

The first task undertaken was to compile and evaluate existing grour water data from oil and gas well driller's logs. This study was performed by the U.S. Geological Survey (USGS) in cooperation with the West Virginia

Geological and Economic Survey (WVGES). The results of this study were ed to compile a set of two maps delineating the fresh and saline water elevations throughout the State. The map scale is 1:250,000. The project was completed in 1980. One map depicts the elevation of the base of the fresh water while the other shows the elevation of the top of the saline water. Also, included on each map is an inset map showing the thickness of the zone between the base of the fresh water and the top of the saline water. These inset maps were generated by a computer program which subtracted the data array representing the top of the saline water from the array representing the bottom of the fresh water and then contoured the difference.

(12) The 2 large contour maps were also computer generated

These maps will facilitate a quick estimation of the elevation of the base of fresh water at a given location and will be of use in the permitting process. The actual elevation will be influenced by local topography and geology and should be determined from data taken on site.

A second project is being conducted to identify and characterize the State's ground water resources. This project is being undertaken by the USGS for the Division of Water Resources. It involves the compilation of data and the generation of a Ground-Water Atlas for each major river basin in the State.

The Ground-Water Hydrology of the Potomac River Basin (1973) map was prepared by USGS in cooperation with the WVGES and the DNR. This map is the precursor of the current River Basin Atlas project which is based on its format. Each Basin Atlas will contain a geohydrologic map and information on potential ground water yield, water quality, well locations sampled, and chemical suitability of ground water for domestic or public use.

A total of eleven Basin Atlases will be completed by 1984. They are (along with their current status): Potomac and Little Kanawha (complete);

Are these the USGS proj. that would be dropped if funds are cut (p. 17)?

potential effects of existing and proposed injection well facilities by providing information regarding the suitability of certain hydrologic environments for facility siting.

C. Definition of Exempted Aquifers

Exempted aquifers may be defined by the criteria in Section 3.00 of the State UIC Regulations, the standards of which were also adopted verbatim from 40 CFR Part 146:

> An aquifer or a portion thereof which meets the criteria for an "underground source of drinking water" in Section 2.00 may be determined to be an exempted aquifer if it meets the following criteria:
>
> (a) It does not currently serve as a source of drinking water; and
>
> (b) It cannot now and will not in the future serve as a source of drinking water because:
>
> (1) It is mineral, hydrocarbon or geothermal energy producing, or can be demonstrated by a permit applicant as part of a permit application for a Class II or III operation to contain minerals or hydrocarbons that, considering their quantity and location, are expected to be commercially producible; or
>
> (2) It is situated at a depth or location which makes recovery of water for drinking water purposes economically or technologically impractical; or
>
> (3) It is so contaminated that it would be economically or technologically impractical to render the water fit for human consumption; or
>
> (4) It is located over a Class III well mining area subject to subsidence or catastrophic collapse; or
>
> (c) The total dissolved solids (TDS) content of the groundwater is more than 3,000 and less than 10,000 mg/l and it is not reasonably expected to supply a public water system.

III. ACTIVITIES REGULATED UNDER THE UIC PROGRAM

A. Classification of Wells

The West Virginia Injection Well Inventory System (IWIS) as of April, 1982, indicates that there are 8 Class I, 339 Class II, 17 Class III and 105 Class V wells in the State. There are no Class IV wells known to exist. The West Virginia UIC well classification system was adopted verbatim from the federal classification system in 40 CFR Part 146, and is described in Section 4.00 of the State UIC Regulations. These regulations cover all injection wells, including Class IV.

Injection wells are classified as follows:

1. Class I

(a) Wells used by generators of hazardous waste or owners or operators of hazardous waste management facilities to inject hazardous waste beneath the lowermost formation containing, within one quarter mile of the well bore, an underground source of drinking water.

(b) Other industrial and municipal disposal wells which inject fluids beneath the lowermost formation containing, within one quarter mile of the well bore, an underground source of drinking water.

2. Class II

Wells injecting fluids:

(a) Which are brought to the surface in connection with conventional oil or natural gas production and may be commingled with waste waters from gas plants which are an integral part of production operations, unless those wastes are classified as a hazardous waste at the time of injection,

(b) For enhanced recovery of oil or natural gas; and

(c) For storage of hydrocarbons which are liquid at standard temperature and pressure.

3. Class III

Wells which inject for extraction of minerals including:

produced, information such as logs, core data, formation description, formation depth, formation thickness and formation parameters such as permeability and porosity shall be considered by the Chief, to the extent such information is available.

(3) These apply to enhanced recovery of oil in a reservoir containing "fresh" water. Most, if not all, known WV oil fields contain "salt" water. If so, are permits still needed for enhanced recovery wells?

If this is an example of the "geologic expertise" in DNR, how are they ever going to administer this program?

(a) Mining of sulfur by the Frasch process;

(b) In situ production of uranium or other metals. This category includes only in-situ production from ore bodies which have not been conventionally mined. Solution mining of conventional mines such as stopes leaching is included in Class V;

(c) Solution mining of salts or potash; "fresh" water inj. to dissolve salt.

(d) In situ combustion of fossil fuel; and

(e) Recovery of geothermal energy to produce electric power.

4. Class IV

(a) Wells used by generators of hazardous wastes or radioactive wastes, by owners or operators of hazardous waste management facilities, or by owners or operators of radioactive waste disposal sites to dispose of hazardous waste or radioactive wastes into a formation which within one quarter mile of the well bore, contains an underground source of drinking water.

(b) Wells used by generators of hazardous wastes or radioactive wastes, by owners or operators of hazardous waste management facilities, or by owners or operators of radioactive waste disposal sites to dispose of hazardous wastes or radioactive wastes above a formation which within one quarter mile of the well bore, contains an underground source of drinking water.

(c) Wells used by generators of hazardous wastes or by owners or operators of hazardous waste management facilities, to dispose of hazardous wastes which cannot be classified under Section 4.01(a) of the State UIC Regulations (e.g., wells used to dispose of hazardous wastes into or above a formation which contains an aquifer which has been exempted pursuant to Section 3.00 of the State UIC Regulations).

5. Class V Well

Injection wells not included in Classes I, II, III, or IV. Class V wells include, but are not limited to:

(a) Cesspools, including multiple dwelling, community or regional cesspools, or other devices that receive wastes, which have an open bottom and sometimes have perforated sides. The UIC requirements do not apply to single family residential cesspools which receive solely sanitary wastes and have the capacity to serve fewer than 20 persons a day.

(b) Sand backfill and other backfill wells used to inject a mixture of water and sand, mill tailings or other solids into mined out portions of subsurface mines whether what is injected is a radioactive waste or not.

(c) Septic system wells used to inject the waste or effluent from a multiple dwelling, business establishment, community or regional business establishment septic tank. The UIC requirements do not apply to single family residential septic system wells, nor to non-residential septic system wells which are used solely for the disposal of sanitary waste and have the capacity to serve fewer than 20 persons a day.

(d) Injection wells associated with the recovery of geothermal ene for heating, aquaculture and production of electric power.

(e) Radioactive waste disposal wells other than Class IV.

(f) Wells used for solution mining of conventional mines such as stopes leaching.

(g) Injection wells used for in situ recovery of lignite, coal, tar sands, and oil shale.

(h) Wells used to inject spent brine into the same formation from which it was withdrawn after extraction of halogens or their salts.

(i) Injection wells used in experimental technologies.

(j) Wells for waste disposal into solution cavities in carbonate formations

(k) Sinkholes used for the disposal of sewage or any other waste.

(l) Air conditioning return flow wells used to return (to the supply

further minimize the possibility of overlooking an injection well.

The IWIS data base is updated upon receipt of a permit application, and upon notice that a permitted well has been plugged and abandoned. Information required to be submitted to the Chief is listed in Sections 20-5A-9, 20-5A-3(a) and 20-5A-3(d) of the State Water Pollution Control Act. Operators who fail to report existing injection wells are subject to the penalties detailed under the Act.

Under Section 13.02 of the State UIC Regulations, the Chief of the DWR is required to notify owners or operators of injection wells of their duty to submit inventory information. The owners and operators must submit inventory information within one year of the effective date of the program, or face penalties under the State Act. To ensure compatibility with the IWIS data system and the requirements of 40 CFR Part 123, the following information shall be required for submittal:

(1) facility name and location;

(2) name and address of legal contact;

(3) owner of facility;

(4) composition of injected waste; and

(5) operating status of the wells.

A copy of OMB No. 158-R0170 (Inventory of Injection Wells) along with a self-addressed, stamped envelope will be mailed to all operators who hold water pollution control permits, mine operation permits, and oil and gas drilling permits. Copies will also be made available to Water Resources and Department of Mines inspectors for new facilities which develop within their Districts.

along with the Injection Well Information System list, will be used to notify owners and operators of the procedures for applying for a permit. Copies of the UIC Regulations will be available through the DWR Public Information Office. Legal notices (Class I advertisements) regarding the necessity to apply for permits will be placed in all major State newspapers. Citizen's action groups will be informed. District Water Resources inspectors and Oil and Gas inspectors will be notified of the procedures for applying for permits and asked about owners and operators within their districts which may have been overlooked on the mailing list.

The notification will include a schedule for applying for permits within the time limits listed in Section 13.03(b) of the State UIC Regulations. This requires existing injection wells to apply for a permit within four years of the effective date of the State UIC Program. The State will call for these applications on an individual basis according to the schedule in Section IV,D of this Program Description. Wells which inject hazardous waste must apply for a permit within six months of the effective date of the State UIC Program. New injection wells (except new wells in projects authorized by rule or new wells covered by an existing area permit) must submit an application for a permit a reasonable time before construction is expected to begin (as described in Section V of this Program Description).

C. Priorities for Issuance of Permits

Priorities for the repermitting of wells have been established based on reviews of present permits and suspected groundwater contamination situations. Information in the State files regarding casing leaks in Class I industrial waste injection wells indicate that these wells should receive first priority for permit reissuance review.

Since there are only eight Class I wells in the State, this entire class of wells will be reviewed for repermitting in the first year. The Class III wells are clustered at only two locations, so these wells will also be examined during the first year of the program.

This leaves the Class II well repermitting and the Class V well repermitting assessment. The Class V well assessment must be completed within three years. This work load will be distributed over this time as resources permit. The Class II well repermitting will be done in coordination with the Department of Mines Office of Oil and Gas and the Oil and Gas Conservation Commission. This work will be distributed over the five years provided under the State UIC Regulations.

Additional criteria will be considered within the above general outline to set the priorities for repermitting. These include the likelihood of contamination of USDW's, potentially affected population, age and depth of injection well, and expiration date of existing State permits. Wells which will be given priority for permit reissuance review will be wells violating existing State requirements, wells known or suspected to be contaminating USDW's, and wells whose existing State permit is nearing expiration.

D. Permit Reissuance Schedule (Table IV-1)

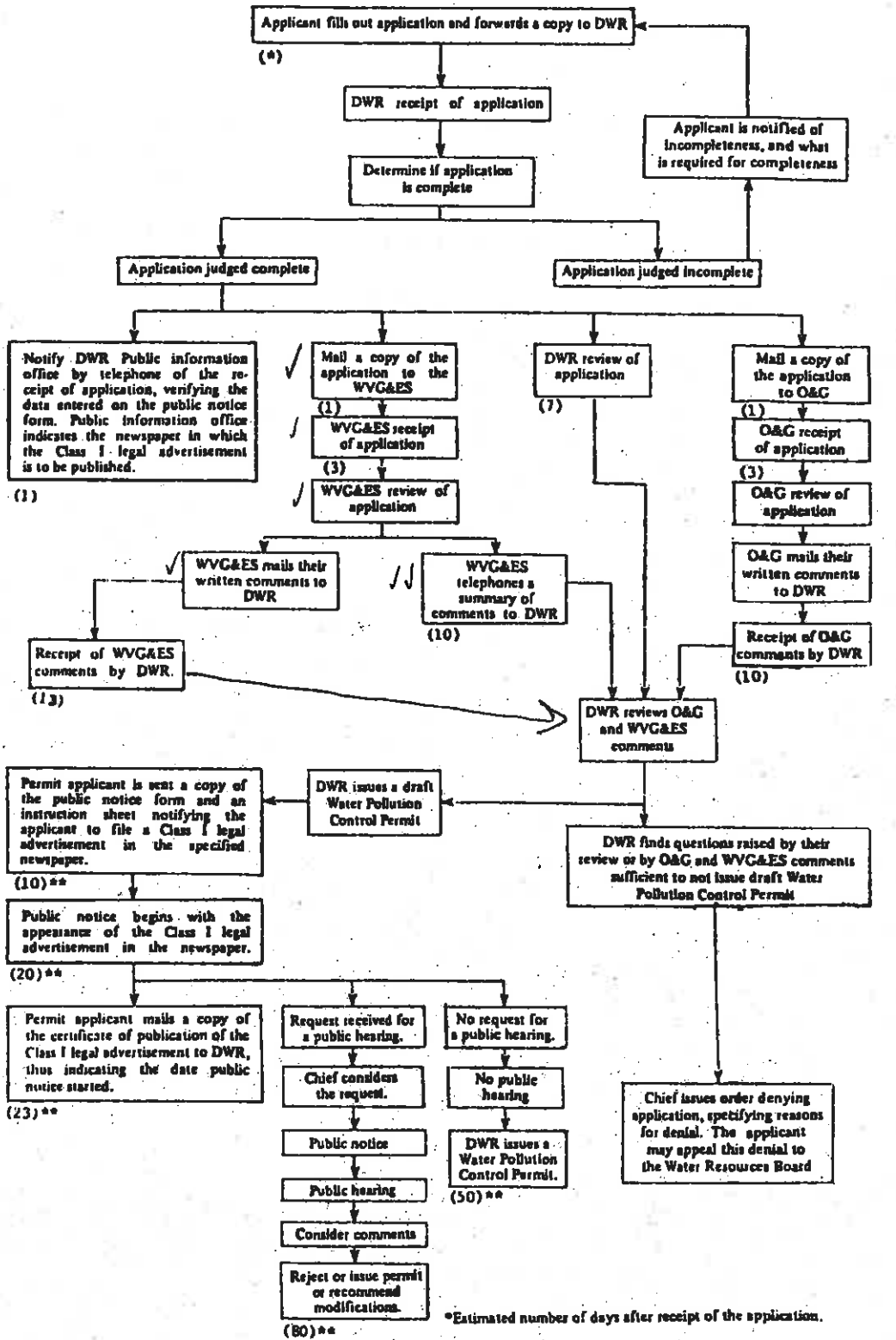
The following table shows the anticipated schedule for the repermitting of existing wells. This schedule is based on the priorities discussed in Section IV,C of this Program Description.

Well Class/Type	FY '83	FY '84	FY '85	FY '86	FY '87	Total
I. Industrial						8
II. Oil & Gas related						399
Brine Disposal						60
Enhanced Recovery						339
III. Solution Mining						17
IV. Hazardous Waste						0
V. Assessment						105

Figure V-1

FLOW CHART FOR PROCESSING CLASS I & CLASS III PERMIT APPLICATIONS

Division of Water Resources (DWR); Oil & Gas conservation commission and office of Oil & Gas, Department of Mines (O&G); West Virginia Geological and Economic Survey (WVG&ES)



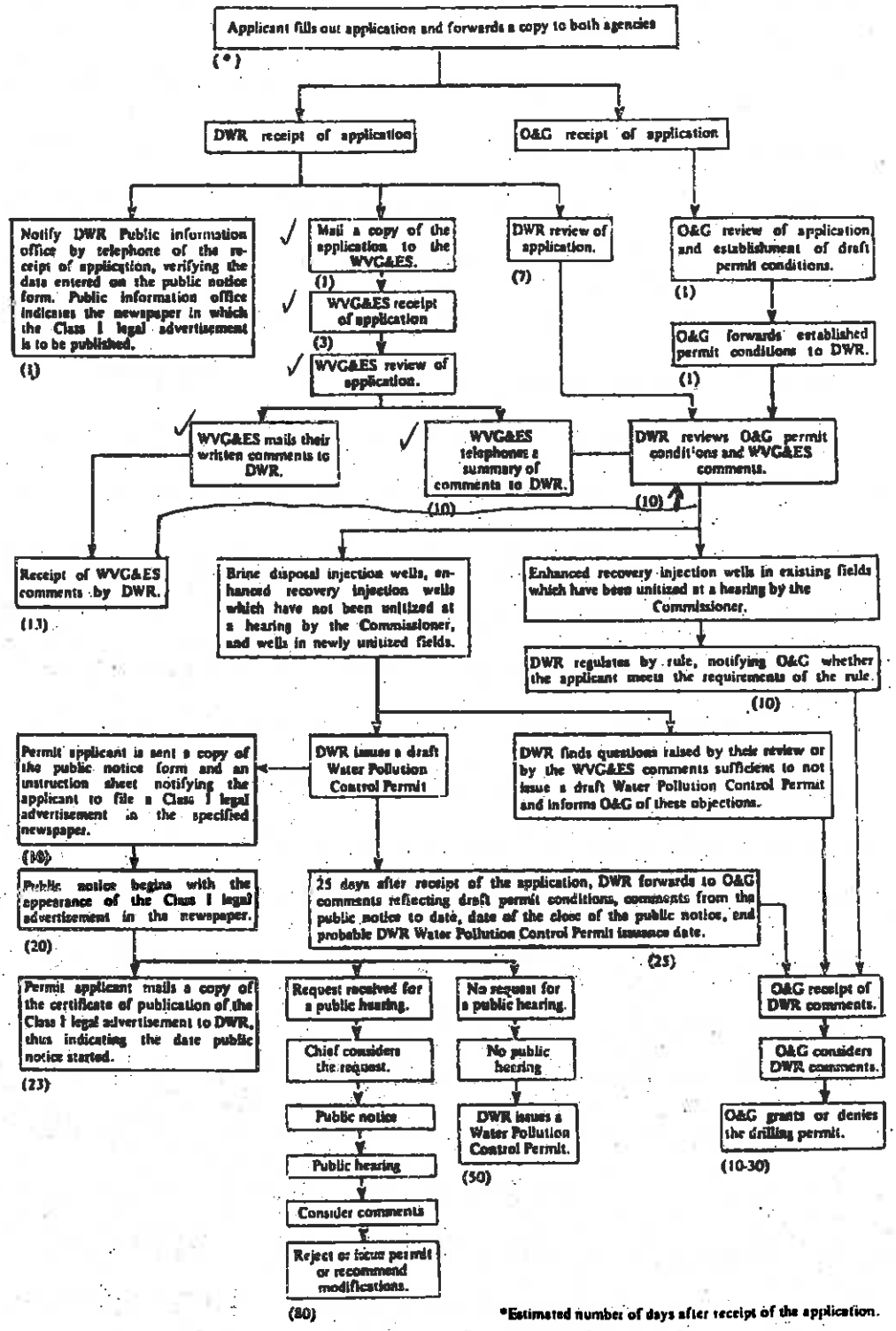
*Estimated number of days after receipt of the application.

**Additional time required if application is altered based on review.

Figure V-2

FLOW CHART FOR PROCESSING CLASS II PERMIT APPLICATIONS

Division of Water Resources (DWR); Oil & Gas conservation commission and office of Oil & Gas, Department of Mines (O&G); West Virginia Geological and Economic Survey (WVG&ES)



*Estimated number of days after receipt of the application.

B. Permit Conditions

The following conditions are intended to assure compliance with the requirements of the State Act, the State UIC Regulations and the Safe Drinking Water Act.

1. Conditions Applicable to All Permits (State UIC Regulations, Section 13.12)

The following must be incorporated into permits either expressly or by reference (by means of a specific citation of the regulations in the permit).

The permittee has a duty to comply with all permit conditions. Any permit noncompliance constitutes a violation of the SDWA and the State Act and is grounds for enforcement action, for permit actions (suspension or revocation, revocation and reissuance, or modification), or for denial of a permit renewal application. If a permittee wishes to continue an activity regulated by a permit after the expiration date of the permit, the permittee must apply for and obtain a new permit. A permittee has a duty to halt or reduce activity when operations are in noncompliance of permit conditions. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. The permittee has a duty to mitigate noncompliance activity. The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with his permit. This requires the proper operation and maintenance of the injection facility. The permittee shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of his permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and

and monitoring where he deems it necessary and feasible to insure adequate protection of USDWs.

G. Information to be Considered (State UIC Regulations, Sections 8.05 and 10.05)

Prior to the issuance of a permit for an existing or new Class I or Class III well, the Chief shall consider the following information. For an existing Class I or Class III well the Chief may rely on the existing State permit file for those items of information listed below which are current and accurate in the State file. For a new Class I or Class III well, the Chief shall require the submission of all the information listed below.

1. Information considered for both Class I and Class III wells:

a. A map showing the injection well(s) for which a permit is sought and the applicable area of review. Within the area of review, the map must show the number or name, and location of all producing wells, injection wells, abandoned wells, dry holes, surface bodies of water, mines (surface and subsurface), quarries, water wells and other pertinent surface features including residences and roads. The map should also show faults, if known or suspected. Only information of public record is required to be included on this map;

b. Maps and cross sections indicating the vertical and lateral limits of all underground sources of drinking water within the area of review, their position relative to the injection formation, and the direction of water movement, where known, in every underground source of drinking water which may be affected by the proposed injection;

c. Maps and cross sections detailing the geologic structure of the local area;

Should require that maps, cross sections & other geological information must be prepared by an appropriately qualified professional geologist.

Does require corresponding logging reports prepared by appropriately qualified [illegible]

d. Generalized maps and cross sections illustrating the regional geologic setting;

e. The anticipated average and maximum pressure and flow rate at which the permittee will operate;

f. Stimulation program;

g. Injection procedure;

h. Schematic or other appropriate drawings of the surface and subsurface construction details of the well;

i. Contingency plans to cope with all shut-ins or well failures so as to prevent the migration of contaminating fluids into underground sources of drinking water;

j. All available logging and testing data on the well;

k. Plans (including maps) for meeting the monitoring requirements;

l. A certificate that the applicant has assured, through a performance bond or other appropriate means, the resources necessary to close, plug or abandon the well;

m. Prior to granting approval for the plugging and abandonment or a Class III well the Chief shall consider the following information:

(i) The type and number of plugs to be used;

(ii) The placement of each plug including the elevation of the top and bottom;

(iii) The type, grade and quantity of cement to be used;

(iv) The method of placement of the plugs; and

(v) The procedure to be used to meet the plugging and abandonment requirements.

2. Information considered for Class I wells only:

a. A tabulation of data on all wells within the area of review which penetrate into the proposed injection zone. Such data shall include

prohibits automatic transfer of ownership for wells injecting hazardous waste.

The technical requirements for Class I wells were promulgated to assure protection of USDW's. The intent of the regulations is to prevent upward migration of fluids into USDW's through any confining layers. The permittee must shoulder the burden of proof that injected hazardous waste remains where it is emplaced. Limited remedial action can be taken to stop migration of hazardous waste into a USDW once it begins, and complete removal from a USDW can prove to be impossible. The technical requirements seek to guarantee that injection is as safe as possible before any hazardous waste is injected and to prevent any migration of the hazardous waste from the injection zone.

Coring, logging, and reports by appropriately qualified coring and/or logging analysts will be required to determine the suitability of the injection zone will help determine its ability to be an acceptable reservoir for the hazardous waste. Analysis of the data from the proposed confining layer will help determine its ability to act as an impermeable barrier against upward migration of the hazardous waste.

Critical evaluation of well construction and mechanical integrity is necessary to determine if a well will transport the hazardous waste to the injection zone reservoir without leaks. For example, the State UIC Regulations require that all parts of a Class I well which will come into contact with corrosive fluids shall be constructed or corrosion resistant material. This requirement seeks to prevent loss of mechanical integrity and thus prevent the escape of hazardous waste into USDW's.

The monitoring and reporting requirements of the regulations compel the permittee to supply continuing assurance that hazardous waste injection remains safe. The monitoring of injection well head pressure documents

Professional
Geologists of
West Virginia

October 22, 1982

Mr. David W. Robinson
Chief, Division of Water Resources
1201 Greenbrier St.
Charleston, WV 25311

Dear Mr. Robinson:

The West Virginia Underground Injection Control Program--Primacy Application has been reviewed by professional geologists of this Institution and offer the following comment.

Items requiring geological expertise such as maps, cross sections, site geology, site hydrology, and other geological matters should be performed by a qualified professional geologist. A statement to this effect should be included in the regulations to insure the geological and hydrological integrity of permitted wells.

Sincerely yours,

Donald C. Long
President

DCL:lc

Association of Engineering Geologists

Allegheny-Ohio Section

October 25, 1982

Mr. David W. Robinson
Chief, Division of Water Resources
1201 Greenbrier Street
Charleston, WV 25311

Re: West Virginia Underground Injection Control Program - Primary Application

Dear Mr. Robinson:

The professional geologists of the Association of Engineering Geologists have reviewed the proposed West Virginia Injection Control Program - Primary Application, and offer the following comment.

On page 89, items such as site geology, site hydrology and other geologic matters that are usually shown on geologic maps, cross-sections and other drawings of underground conditions, should be prepared by a qualified professional geologist. The regulations should include a statement to this effect to insure the geological and hydrological integrity of the permitted wells.

Sincerely yours,

Robert E. Yost, Jr.
Vice Chairman, WV

REY:lc

OHIO RIVER VALLEY
WATER SANITATION COMMISSION

414 WALNUT STREET, CINCINNATI, OHIO 45202 (513) 421-1151

LLOYD N. CLAUSING
CHAIRMAN
LEO WEAVER
EXECUTIVE DIRECTOR
AND CHIEF ENGINEER

October 28, 1982

Richard M. Melvin, Engineer
Underground Injection Control Program
Division of Water Resources
1201 Greenbrier Street
Charleston, West Virginia 25311

Subject: Review of Proposal West Virginia Underground Injection Control Program

Dear Mr. Melvin:

This is to acknowledge receipt of the above noted document transmitted with your letter of October 6, 1982.

Attached herewith for your information is the report, Underground Injection of Wastewaters in the Ohio Valley Region, dated August, 1973, and developed by this Commission's Advisory Committee on Underground Injection of Wastewaters. The Commission's policy regarding underground injection is included on Page III of the report. This policy, originally adopted on January 11, 1973, was reviewed and reaffirmed in May, 1980.

A cursory review of your agency's proposed regulations appears to indicate compatability with ORSANCO's Policy Statement. I specifically call your attention to provisions in the statement calling for the availability of "(VI) an approved alternative plan for waste management...in the event that operational problems occur during use of the injection system" as well as the need for the well to be "(VII)...plugged and properly marked before abandonment."

In addition, your attention is invited to Page 1, which outlines recommended administrative step procedures for a state program. Item 8 includes the suggestion that "where a proposed injection system is to be located within five miles of a state border, the appropriate regulatory agency in the adjacent state should be provided the opportunity to review and comment on the application."

We appreciate the opportunity to submit these comments on West Virginia's application for administrative primacy for the Underground Injection Control Program.

Sincerely yours,

Alan H. Vicory, Jr., P.E.
Environmental Engineer

Attachment

cc: Mr. David W. Robinson
Mr. Edgar N. Henry
Dr. L. Clark Hansbarger

OHIO RIVER VALLEY WATER SANITATION COMMISSION

UNDERGROUND INJECTION OF WASTEWATERS in the OHIO VALLEY REGION

Recommendations for the conduct of regulatory actions including the scope and sequence of administrative procedures and the evaluation of geological and technological factors

developed by the
ORSANCO Advisory Committee on Underground Injection of Wastewaters

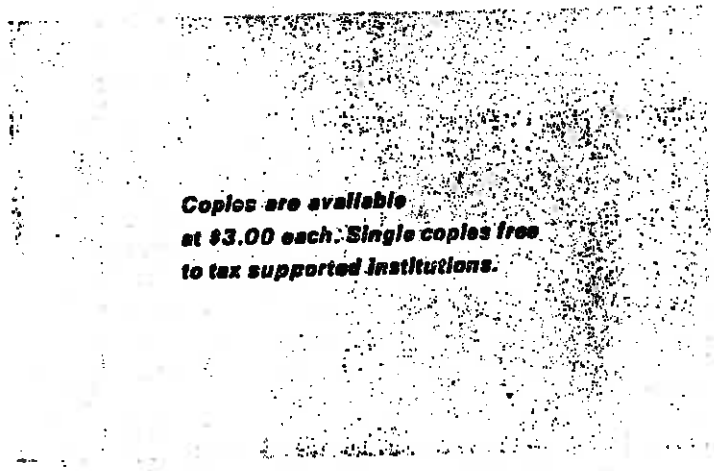
AUGUST 1973

An Interstate Agency Representing: Illinois • Indiana • Kentucky • New York • Ohio • Pennsylvania • Virginia • West Virginia

Recommendations for

UNDERGROUND INJECTION OF WASTEWATERS in the OHIO VALLEY REGION

developed by the
ORSANCO Advisory Committee on Underground Injection of Wastewaters



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ILLINOIS
John C. Frye, Chief, and Robert E. Bergstrom, Head Geology-Geophysical Exploration Section, Illinois Geological Survey

INDIANA
John B. Patton, State Geologist and Thomas A. Dawson, Head of Petroleum Section, Indiana Geological Survey

KENTUCKY
Wallace W. Hagan, State Geologist, Kentucky Geological Survey

NEW YORK
James F. Davis, State Geologist and W. Lynn Kreidler, Senior Scientist, New York Geological Survey

OHIO
Horace R. Collins, State Geologist and Michael J. Clifford, Geologist, Division of Geological Survey

PENNSYLVANIA
Arthur Socolow, State Geologist and William S. Lytle, Senior Research Geologist, Bureau of Topographic & Geologic Survey

VIRGINIA
James Calver, State Geologist, Virginia Division of Mineral Resources

WEST VIRGINIA
Robert B. Erwin, State Geologist and Larry D. Woodfork, Assistant State Geologist, West Virginia Geological Survey

ORSANCO
Russell A. Brant, Geologist-Liaison Member, and Don L. Warner, Consultant and Committee Chairman

U.S. GEOLOGICAL SURVEY
Joseph Callahan, Chief, Ground Water Branch, Water Resources Division

OHIO RIVER VALLEY WATER SANITATION COMMISSION
414 Walnut Street Cincinnati, Ohio 45202

August 1973

Foreword

Some six years ago the member states of the Ohio River Valley Water Sanitation Commission (ORSANCO) concluded it would be of mutual interest to appraise policies, procedures and other matters allied to the growing practice of subsurface disposal of industrial wastewaters. Execution of this comprehensive assessment resulted in a report titled "Perspective on the Regulation of Underground Injection of Wastewaters."

This document, which was submitted to the commissioners of ORSANCO on December 1, 1969, addressed itself to: (1) the status of subsurface disposal practice; (2) the questions it provokes with respect to public policy, legislative and legal issues; and (3) suggested procedures to satisfy administrative needs, geological evaluation and technological considerations. It was developed by Edward J. Cleary and Don L. Warner, consultants to the ORSANCO staff.

One suggestion in this assessment was that ORSANCO invite a committee of chief geologists from the eight states and a representative from the U. S. Geological Survey to review the Cleary-Warner findings and offer its recommendations on appropriate policy and procedures. Such a committee was created and its deliberations resulted in the report now presented. Acting on a committee recommendation the Commission adopted on January 11, 1973, a statement of policy concerning underground injection. This statement is reproduced on a following page.

Meantime, the committee endorsed a Cleary-Warner proposal that ORSANCO be charged with the establishment of a registry on injection-well systems in the eight states. In turn, the U. S. Geological Survey found merit in supporting the initiation of such an undertaking and made available a $35,000 grant for this purpose.

Under guidance of the committee and with the cooperation of state agencies the registry is now nearing completion. It reveals that from 1941 to the present some 50 wells have been developed. Of this total, 32 are in operation and 18 others are in categories of standby, continued development or abandonment. Details are documented with respect to pressures, volumes, injection rates, depths, formations used, composition of wastewaters and malfunctions.

In publishing this report the Commission acknowledges with appreciation the efforts of those who contributed to its formulation.

ROBERT K. HORTON

Robert K. Horton

Executive Director
and Chief Engineer

August 1973

Policy Statement

RESOLUTION NO. 1-73
Policy on the Underground Injection of Wastewaters
Adopted: January 11, 1973

WHEREAS: Underground injection is a technically acceptable method of wastewater disposal or long-term storage whereby pollutants can be removed from the surface environment and placed in isolated underground locations; and

WHEREAS: The techniques, trained personnel and organizations are available within the ORSANCO district for evaluation of the geologic and engineering feasibility of underground disposal and for determination of the risks, if any, that may exist to public health and to the environment;

NOW, THEREFORE: Let it be resolved that the Ohio River Valley Water Sanitation Commission does declare as a policy that wastewater injection may be used when the regulatory authorities with legal jurisdiction have considered other alternative methods of waste management, and that, after weighing all available evidence, have determined that:

I. Underground injection is the best available alternative in the specific circumstances of the case;

II. Geologic and hydrologic conditions will, beyond a reasonable doubt, provide adequate protection of the public and natural resources;

III. The volume, chemical and physical composition, and toxicity of the fluid to be injected are compatible with the geologic and hydrologic conditions;

IV. The necessary safety factors and monitoring devices are incorporated in the design of the injection well and its auxiliary facilities;

V. The waste injection system will be operated in a manner compatible with the geologic conditions, waste character, and system construction;

VI. An approved alternative plan for waste management is available in the event that operational problems occur during the use of the injection system;

VII. The injection well will be properly plugged and marked before abandonment;

VIII. A permanent public record will be kept which documents the complete operational history of the injection system.

Administrative Procedures

Seven steps are identified as essential in the administration of a state program for regulation of the underground injection of wastewater. An additional step is recommended for wells located near state boundaries. The steps are:

1. Preliminary assessment by the applicant of the geology and geohydrology at the proposed well site and the suitability of the wastewater for injection. These initial studies should be made in consultation with the appropriate state agencies;

2. Application to the state agency with legal jurisdiction for permission to drill and test a well for subsurface wastewater injection. The application must be supported by a report that documents all details of the proposed injection system, including monitoring and emergency standby facilities. On issuance of a permit, the applicant will be informed of the geologic and geohydrologic parameters that will be employed by the state in reaching its final determination on feasibility of wastewater injection into the well, anticipated limitations on injection pressure and injected volumes, the probable monitoring requirements, and probable requirements for alternative wastewater management programs in the event that operational problems occur during the use of the injection well;

3. Drilling and evaluation of the well and submission of samples, logs, test information, and a well-completion report to the state;

4. Request by the applicant for approval to inject wastewater into the well. The request should indicate any changes from the original plan in system construction and operating program;

5. Evaluation by the state agency of the proposal on the basis of which it would issue either approval, approval-with-modification, or disapproval of the proposed injection system with respect to the geologic, geohydrologic, and engineering data submitted. On approval, the applicant will be provided with specific instructions as to the operating restrictions and monitoring requirements;

6. Issuance of instructions for operation of the injection system. This embraces requirements that the regulatory agency must be notified immediately if operational problems occur, if remedial work is required, or if significant changes in the wastewater stream are anticipated;

7. Procedures for abandonment of the well in accordance with state regulations;

8. Where a proposed injection system is to be located within five miles of a state border, the appropriate regulatory agency in the adjacent state should be provided with an opportunity to review and comment on the application. Further, this agency should be posted when any significant problems occur during the operation of such a system.

Underground Injection Control
Public Hearing Transcript
October 28, 1982
7:00 P.M.
Division of Water Resources, Conference Room
1201 Greenbrier Street, Charleston, WV

(Meeting was called to order by David W. Robinson at 7:05 p.m. Opening remarks were not recorded due to technical difficulties.)

Dave Robinson: I would like to introduce the people at the front table to you. On my far left is Steve Platt from EPA who is involved with the UIC Pogram at the Federal level, Rik Melvin of our UIC Program, John Northeimer who is head of the Hazardous Waste/Ground Water Section, Mark Nelson who will be working with our UIC Program, and Pat Northeimer who will be secretary for the meeting tonight. I am going to ask Rik Melvin to come up and give you a brief description of the State's UIC Program Application and then we'll get into statements and discussions as necessary. Rik.

Rik Melvin: Thank you Dave, I'll be as brief as possible so that we can get to the comments that you gentlemen and ladies may decide to prepare for us this evening and present to us.

First of all, the Application that is at public notice currently contains the information which is required by federal regulation to be included in applications for primacy for Underground Injection Control Programs. We have included a draft Governor's letter of transmittal, the Attorney General's statements as to the statutory authority to implement the program, a Memorandum Of Agreement between the State and EPA as to implementation of the program, and then Section 4 is probably the most detailed section, dealing with how we envision the program to be implemented in the State. You will notice also, in Section 5, there is a separate Program Description which is the Application for Class II Wells, oil and gas related activities. This Application is being presented by the Office of Oil and Gas, Department of Mines and the Oil and Gas Conservation Commission under currently existing laws and statutes. This is done so that we did not require any additional regulation by the Division of Water Resources and we would have a program which would be able to function under the existing laws. Currently in the State, as you are aware, we have the statutory and regulatory framework which has involved permitting of both brine disposal and enhanced recovery wells in the past. Then finally, we included, as required by law, these applicable statutes and regulations of the State in Section 6. We prepared this, as required, and the two remaining sections which we envision to put in this application will include a transcript of this evening's proceedings, a copy of all written statements which have been received by the public during the public comment period and our response to these comments and any alterations which have been made as a result of the comments which come in during this period. What is hoped to be gained by it is delineated in the fourth section, the Program Description. We are hoping to outline for the State, a program which will preserve the quality of high quality water resources in the State for drinking purposes (underground sources of drinking water) and allow alternative usage (such as brine disposal and enhanced recovery) of other low grade water resources, subsurface.

I would like to comment that there has been placed by the Water Resources

Board, several changes to the regulations which were promulgated and on file with the Secretary of State. Most of these are not substantive changes. They are rather, typographical or errors in reference to particular sections which did not exist (which existed in the original draft). We also have one substantive change. That substantive change deals with injection of hazardous waste. When we included our Section 7.04 in the regulations that are included in this Section 6 of this application, it indicated that it was the section which detailed the location standards for new hazardous waste injection wells. These location standards were put in Section 7, which was substantially equivalent to the Federal section regarding injection of hazardous wastes. Their section did not include these location standards. It included an applicability statement which limited the applicability to a situation where the waste disposed of would be accompanied by a manifest. In other words, the waste entering the particular disposal facility would have to travel to the facility by some means of transportation to be involved in the manifest system. This was set up for these regulations under the Federal regulations. We had intended the location standards to apply to all new wells. So, the new modification which is at public notice currently, and a copy of which can be obtained from the Board (they are on file with the Secretary of State), does include a modification which will remove the limitation of the phrase "accompanied by a manifest" from the location standards. That is the extent of that one substantive modification.

With that, I think that pretty much covers everything that I wanted to say this evening and I hope you gentlemen will aid us by presenting us with comments which will help us to improve the program as you see fit.

Yes.

H. L. Snyder: Can I ask you a couple of questions because I don't understand what you said in light of what I have read?

Mr. Melvin: All right. Go ahead, sir.

Mr. Snyder: I understood you to say that there would be no Water Resources permit required for Class II wells.

Mr. Melvin: Just now, sir?

Mr. Snyder: About three minutes ago. Did I misunderstand?

Mr. Melvin: No, I said there would be no additional regulations. As far as the requirement for a permit, what this is involved with is that it's impossible to get, even under Section 1425, to get the program from EPA for the State under existing regulations without public notice. Neither the Office of Oil and Gas nor the Oil and Gas Conservation Commission have this particular type of a mechanism except in the case of field unitization (which is the only case in which they have a mechanism for public notice). So, in order to get the program from EPA, we are required to have a public notice involvement. What we have done is described in the Program Description, I believe in the preamble to Section 5. Well, it's in Section 4, the Program Description, Roman numeral V, the preamble to that Section. It describes how we developed a single application form to minimize any sort of paper work required by industry. This single application form will be sent to both agencies. We will do the normal review which we do anyway under State law, under existing law. The applications normally are received

by Oil and Gas, forwarded to our office, we review them, comment upon them and send them back to the Oil and Gas Conservation Commission or the Office of Oil and Gas, as appropriate. What will happen instead, to speed up the process to get to public notice, will be that we receive it immediately (the same time they do), finish our review simultaneously, and go to public notice as is required with any Division of Water Resources Permit. And we have designed the permit to be one document which includes the permit document which is essentially Form IV-3, I believe, of the Office of Oil and Gas.....

Mr. Snyder: Are you going to have two sets of hearings?

Mr. Melvin: No sir, it will be one hearing.

Mr. Snyder: Do you mean that the existing hearings that the Administrator has, if there are hearings, will also be your hearings?

Mr. Melvin: The Administrator's hearing for field unitization?

Mr. Snyder: No, no, for a well application, for a permit.

Mr. Melvin: I was not aware that there was a hearing involved.

Mr. Snyder: There is if there are objections.

Mr. Melvin: If there are objections. Well, it is required in every case, for to gain primacy from EPA, it is required to have one in every case. Not only in the cases where there are objections. And what we will be doing is we'll be having this hearing as is normal through the existing Division of Water Resources procedures with the 30 day public notice. And we will not plan on holding a hearing in every case either. We will hold a hearing if a hearing is requested.

Mr. Snyder: So a hearing is not required, a hearing is only possible under both.

Mr. Melvin: Yes, sir.

Mr. Snyder: O.K.

Mr. Melvin: But the public notice, the key here is the public notice period.

Mr. Snyder: All right. I am asking out of the depth of ignorance, if you could transfer what heretofor has been a substantial part of the Administrator's jurisdiction over Class II wells to DNR without a statutory change, couldn't you impose a hearing requirement on the Administrator without a statutory change?... A notice requirement.

Mr. Melvin: I don't understand how... Excuse me, but I don't understand how you would be transferring the statutory authority of Oil and Gas to DNR.

Mr. Snyder: I thought that under the statute and regulations as they are today, right this minute, you could get a permit to drill a Class II well from the Administrator. Right today. And drill it and operate it.

Mr. Melvin: No. It's not true. You can get an enhanced recovery permit,

but not a brine disposal permit. Brine disposal is currently . . .

Mr. Snyder: O.K., enhanced recovery. Brine disposal? Do you mean disposal of waste?

Mr. Melvin: Yes.

Mr. Snyder: I didn't have any reference to that and I meant enhanced recovery. Today you can get an enhanced recovery permit from the Administrator. Isn't that right?

Mr. Melvin: I believe it is, sir.

Mr. Snyder: O.K. Then you are going to transfer half of that permitting authority, without any new statutes, to Water Resources Division.

Mr. Melvin: How is that? Karen, could you address this?

Mr. Snyder: Just be putting it in. You say you've got to have your separate authorization from Water Resources Division.

Mr. Robinson: Rik, Karen Watson from our Attorney General's Office is in the audience and she worked on the regs and she is familiar with the statute for both agencies. Also Tom Huzzey, the Administrator for Oil and Gas has just joined us. So, Rik, why don't we prevail upon Karen, and Tom can kick in if he wishes, to explain. Would you make a comment, Karen?

Ms. Watson: Sure.

Mr. Snyder: Are you with me to this point?

Ms. Watson: You're doing a good job, Rik.

Mr. Snyder: Are you with me to this point? Right today ...

Ms. Watson: I think so, yes.

Mr. Snyder: Right today we can get an enhanced oil recovery permit from the Administrator. And he doesn't have public hearing things in his statute. On the other hand, Water Resources Division doesn't have well permitting authority under their statute.

Ms. Watson: No, that's incorrect. That's the first point that, according to our opinion, that's incorrect. The Water Resources Division has concurrent, what I would call concurrent, jurisdiction with the Oil and Gas Division.

Mr. Snyder: For enhanced oil recovery wells?

Ms. Watson: Yes, for all wells.

Mr. Snyder: Under?

Ms. Watson: Under Chapter 20, Article 5A. And that is the statute that the Water Resources Board of course enacted the regulations under and that is the primary reason that they, the Water Resources Board, included the permit requirement for all wells including Class II wells.

Mr. Snyder: If that is true, I understand there've been maybe 150 to 200 enhanced oil recovery wells drilled in this State. Have all of them had Water Resources Division permits?

Ms. Watson: No, the Division has not exercised its authority and its jurisdiction. So in that regard, it's new programatically, but legally they have had the authority. As you know, they have, as you just said, they've permitted brine disposal wells and they do also have similar authority for the enhanced recovery wells.

Mr. Snyder: Oh yes, in waste disposal. Yes, sure, no problem.

Mr. Melvin: But we have fulfilled our requirements by reviewing all of these applications.

Ms. Watson: Yes, they haven't been silent on this subject, they have....

Mr. Snyder: Well, I thought that was under command of Article 22.

Ms. Watson: And Chapter 20. Both. Chapter 20-5A-7 requires the Division to coordinate with Mr. Huzzey on his permits and likewise there is a requirement in his statute, Chapter 22, that requires him to get the Division's...

Mr. Snyder: To revert. Sure, I understand that.

Ms. Watson: That's what has been done to date. But what you were suggesting wouldn't really follow through because the Water Board did actually include, in Section 9 of the regulations, they addressed Class II wells, they specified that a permit, a water permit, would be required. However, to eliminate duplication and so forth, they did essentially incorporate by reference the technical requirements of the Oil and Gas Division and the Commission under Chapter 22, Articles 4 and 4A. So, that's how they did it. It's not really correct to say that there was no legal mechanism by which the Class II well thing was handled.

Mr. Snyder: As a matter of law, if you can, without any change in the statute, if you can subtract that much jurisdiction from the Administrator of Oil and Gas, is there any reason why you couldn't add to his jurisdiction the public hearing requirements. Is there an economical reason?

Ms. Watson: Well, first of all I'm not trying to be argumentative, but I don't agree that it's a subtraction. See, that's my point. We don't have the Division subtracting from Oil and Gas or vice versa. I see what you're saying. What we did is we preserved both agencies' authority. We stated, in accordance with the statutes, that both agencies will issue their permits, in accordance with the statutes; but there will be coordination as far as the technical permit terms and conditions. There was no need that Water Division and the Board felt there was no need...

Mr. Snyder: What if there is a dispute? Who controls if there is a dispute?

Ms. Watson: Well, I don't know. I'll leave that up to... I don't think that is stated in the regulations and I don't want to go further than the agencies who developed this...

Mr. Snyder: Well, I mean will we be told again if there is a dispute, that

our Oil and Gas statute just doesn't apply any more because you're now exercising more reserved jurisdiction. I mean really, this comes as surprise to me. I haven't been in on this before. You and I have never met before tonight, right? And I am just astonished at all this discovery of all of this authority.

Ms. Watson: I am sure, at least on a case by case basis that you'll find out...Right. Well it's gone through quite an evolution. The proposed regulations were not, actually it may have been the draft, the first draft was not worded in this way, but I believe the proposed regulations actually were, the ones that went to notice. But as Rik explained there have been different factors. One is what is necessary to get EPA's approval and the hangup there was the public notice requirements. So, because of that, there was an attempt to try and utilize Water's existing public notice.

Mr. Snyder: Could not the public notice requirement just have been engrafted on? That's my last question. Couldn't it just have been engrafted on the Administrator's process? Here's a federal law that says you have to have a public notice therefore (unintelligible)

Ms. Watson: No, it couldn't. My office advised Mr. Huzzey that it could not, because his only statutory authority is what he has under Chapter 22, Articles 4, 4A and 7 and so forth.

Mr. Snyder: He has all sorts of power to (unintelligible) investigations.

Ms. Watson: No, he does not have public notice authority. He only has it in limited respects, as you said, for enhanced recovery. He has a certain type of...

Mr. Snyder: Oh, I agree. If you are talking about express statutory authority to have...

Ms. Watson: And even implied. We advised the Oil and Gas agency, as their attorneys, as the Attorney General's Office, that there was no authority for them to simply adopt, independent of a regulation. Now by regulation, perhaps they could have. But you have to understand that that was also part of the premise is that to avoid more regulations. So that was part of the background of all of this was to try and utilize existing statutes and regulations of the Oil and Gas agencies.

Mr. Snyder: So in the end, you probably could have done it if the decision had been made that way.

Ms. Watson: No sir, I am not, we were not presented with that question. You are asking me now whether there was statutory authority for them to enact a regulation. I would not want to answer that without looking at the question further. That was not the question that we had to face.

James A. Crews: Is it proper for me to ask a question? Jim Crews of Pennzoil Company.

Mr. Melvin: Yes, sir. Can I have your name, sir, for the record.

Mr. Snyder: Oh, I'm listed. Excuse me. I am Jack Snyder, I am on the legislative committee of the West Virginia Oil and Natural Gas Association.

Mr. Melvin: Thank you, sir.

Mr. Crews: In the case of enhanced recovery projects, are we faced, in unitized operations with two public hearings? One, with the Oil and Gas Division to approve enhanced recovery operations and then two, with the Department of Water Resources for Class II well injection?

Mr. Melvin: If the enhanced recovery operation is an existing operation that is continuing on by one company, it can be covered by an area permit under the repermitting process under which we are going to process all wells to integrate them into the program. In that case, if you are already unitized you will not have to have another hearing. If you are holding a hearing to unitize a field which is not covered by an area permit, and you would like to modify the permit, I believe we need a hearing for a modification whether it's major or minor. And in that case we may be able to combine our public hearing and have just a single public hearing on this.

Our objective is not to interfere with the industry's production of oil and gas, but to add a safeguard on the existing water resources in the State. To guarantee, as the Federal intent was, to preserve existing underground sources of drinking water. If we can do this, we will move towards this. Part of this was done in the development process as I started to mention before we developed a single document which incorporates form IV-3 which is the application for the Oil and Gas permit to our document or our requirements which essentially include our Section 13.00 of our regulations which deal with holding the public hearing. And once this is incorporated we can put the single document which incorporated our permit and the other permit to public notice. This is the mechanism by which we can put the other document on the other permit to notice. It allows us to take this along as part of our permit, part of the permit document. That way we have gone to notice with both and it has served the purposes as Federal requirements and it's served the purpose of our requirements in the State, in the Division. If we were to have a situation where, for instance, this is decided to be an undesirable situation and the program is not to be obtained under Section 1425 from the Federal Government then you would have a situation where you would have your existing permits, we would still have our review through the Office of Oil and Gas sending the permit over to us for enhanced recovery, and you would have to obtain an additional permit under Federal regulations which add additional regulatory requirements for well construction, operation, monitoring, etc. and have this additional Federal permit, again.

Mr. Snyder: If we don't get Primacy?

Mr. Melvin: Yes.

Mr. Snyder: I don't have any question with that.

Mr. Melvin: We were trying to avoid, we thought we had the existing statutory authority to move towards a single document which incorporates both permits which allows us to get the program and avoid this second permit.

Mr. Snyder: I don't know of a single... I don't know of anybody that doesn't, that isn't in favor of West Virginia exercising it's federal right to get primacy. I am not here to oppose that.

Mr. Melvin: All right. Well, Dave, would you like to introduce the gentlemen

that would like to make comments.

Mr. Robinson: Yes, Mr. Snyder, I believe has indicated that you wish to make a statement? Or am I wrong?

Mr. Snyder: Sooner or later, but as you can tell I am so ignorant it might be better if I could listen to other people first.

Mr. Robinson: Well, the reason I chose you first is that you are the only one who has so indicated to make a statement.

Mr. Snyder: Well, you gentlemen and Ms. Sampson [referring to Ms. Watson] have heard my concerns and I think this is a very deep industry concern with finally after so many months and even years of assurance that we could have a single permit system now we wind up with two sets of things to do... and to say that that's a disappointment is the understatement of the year. It's late in the day, but I see no reason why the office of the Administrator of Oil and Gas could not have engrafted upon it a hearing, a public notice requirement rather than, what I insist is a practical transfer of a very great deal of his authority, out of his office and into Water Resources Division with the concomitant, inevitable potential for interagency dispute. And particularly when, as we have heard from Ms. Sampson.

(Mr. Robinson: Watson)

Mr. Snyder: There is no dispute resolution process that she's aware of. So that the potential for whipsaw between two agencies just stands out like a sore thumb. I think that's a tragedy, I think it clearly shows that it is a dual permit process and I think that it's a step backward for the State of West Virginia and I don't think it was clearly forecast in the past two or three years. Now, end of point one.

Point two is a transition problem. And it would occur no matter whether we had primacy or whether we don't and no matter whether the Administrator of Oil and Gas has partial primacy over enhanced oil recovery or whether he doesn't. This has nothing to do with primacy. It has nothing to do with who exercises complete or partial primacy for the State of West Virginia. It's purely a problem of transition. I want to direct you attention to page 6 of the draft regulations that I have, which is a part of Section 2. And it is the definition of new injection wells. New injection well means a well which began injection after the effective date of these regulations. Now the fact is and I know this involves one company in West Virginia (and the company is Pennzoil) and I know that it effects them in a very grave and serious way potentially. The Granny's Creek secondary recovery field has over a hundred enhanced oil recovery injection wells and it's operating today. Permitted under today's law. Not a single operational problem. No impact on water tables. No discernable problems at all, under any forseeable UIC approach or any other approach. Pennzoil has 40 more wells permitted in a Conservation Commission approved extension of the Granny's Creek field. Forty more wells have been repermitted, forty more wells have been drilled, cased and are ready to be perforated and have their integrity proved and to be turned on. And if, these regulations drop into place let's say in 25 days or 35 days there's a likelihood that 8 million dollars of investment is going to be held up for the entire 80 day period or longer in the extension of a existing field without any genuine justification therefore. And my submission, whatever is done, the definition of new injection wells simply ought not, as a matter of elementary

fairness, ought not to be applied to these 40 odd Pennzoil wells. They are ready to go and by...they are not literally ready to go because Pennzoil has not yet have constructed its machinery to force the water underground. But as I say, the wells have been drilled, completed, ready to be perforated and it seems to me just a game of Catch 22 to say well if we can do it in 26 days you've got to come in with all of this stuff...but if it takes us 35 days...that really isn't the way to impose significant new regulations.

Mr. Melvin: Could I respond to that, sir?

Mr. Snyder: I'd love for you to.

Mr. Melvin: How soon do you anticipate beginning injection into these wells?

Mr. Snyder: Jim says by year's end...

Mr. Crews: Year's end. December, January.

Mr. Melvin: I don't think you have anything to worry about in that case, because as it stands right now, our public comment period is open on this particular Application until the 8th of next month.

Mr. Snyder: Of December?

Mr. Melvin: Of November. Then during November we are going to assess the comments, make any required changes in the program, write up the transcript, write up our comments (our response to the comments), put this all together and send the package up to EPA. We're anticipating sending that up to EPA by approximately by December 6, that was the target date for us. Upon receipt at EPA, they examine the document, determine that's it's complete or incomplete and once they have determined it's completeness, they have 90 days in which to respond and approve or reject in whole or in part the program. During those 90 days they go through their entire review process. So what I'm saying (and the estimate that I have gotten from Mr. Platt about when they anticipate the earliest possible date when we'll receive primacy) is sometime in late January at the earliest. But, it is more likely, if headquarters EPA (which has normally been the limiting factor on this) takes the full 90 days as they usually do, the end of February would be the situation that we would begin. And the effective date (in Section 1.03) of the regulations is the day that the EPA grants primacy to the State.

Mr. Snyder: But we know also that that has been done in as little as two weeks. Did you know that?

Mr. Melvin: No I didn't.

Mr. Snyder: And what if you are wrong about these dates? If it is done in two weeks, Pennzoil's 8 million dollars is going to sit there and 40 wells are going to sit there and nothing is going to happen for the entire period.

Mr. Melvin: Karen, did you have a...

Ms. Watson: I believe EPA has it's own public notice, 30 days minimum, so that's a guarantee right here...

Mr. Melvin: Yes, that's right. Within that time frame sometime, EPA will

publish within the Federal Register an indication that they are planning on granting the program to the State of West Virginia. And they then go to public notice with that for 30 additional days.

Mr. Snyder: So the two weeks that we have heard about...

Ms. Watson: Would not be possible.

Mr. Snyder: What you have said here is probably the two weeks after the EPA 30 day notice.

Ms. Watson: Right, that could be.

Mr. Snyder: O.K., but that's 30 days plus two weeks plus a couple of weeks here which is 8 weeks. If your insurances...

Mr. Melvin: Well, we won't get it to them until December and another 30 days even if they granted it when they received it would be the end of December. Plus the additional minimum of two weeks.

Mr. Snyder: Could you bear this problem in mind.

Mr. Melvin: Yes sir. We will.

Mr. Snyder: Could somebody here bear this problem in mind. In case somebody says tomorrow "I want it in to the EPA". I mean do something to keep... this will be a calamitous result for no benefit to the public.

Mr. Melvin: I realize that, sir. And we also realize that in the case of enhanced recovery wells, usually the wells are constructed (in the interest of the company and in the interest of profitability) constructed in the best possible manner so that they will do the job which means they would inject into the strata which is designed to receive the fluids.

Mr. Snyder: And none other.

Mr. Melvin: That's right and we understand that.

Mr. Snyder: Thank you.

Mr. Robinson: Thank you, Rik. Tom, did you have anything to say at all?

Tom Huzzey: No, I really didn't have anything to add.

Mr. Robinson: O.K. We are available, our staff is available if anyone else has any questions about the program. Seeing no indication of that, I'll just remind you that the record of the hearing will stay open for 10 days, till the 8th of next month, so anybody that wants to file a written comment please do so and with that I'll adjourn the meeting. Thank you for coming.

hn D. Rockefeller IV
overnor

L. Clark Hansbarger, M.D.
Director

State of West Virginia

DEPARTMENT OF HEALTH
CHARLESTON 25305

November 5, 1982

Mr. Richard M. Melvin, Engineer
Underground Injection Control Program
Hazardous Waste/Groundwater Branch
Division of Water Resources
Department of Natural Resources
1201 Greenbrier Street
Charleston, West Virginia 25311

Dear Mr. Melvin:

We appreciate the opportunity to review the UIC Program Primacy Application. We commend you on the overall content of the application.

In our earlier letter of March 2, 1982, a copy of which is attached, we suggested some modifications in the then pending UIC regulations. We are pleased that two (2) of the suggested changes have been incorporated in the final regulations; however, we also believe that our other suggested changes need to be addressed. While these suggestions can not now be incorporated in the regulations, they can be written into the primacy application (Section 4-Program Description). We also hope that your office will give future consideration to our remaining suggestions when the UIC regulations are again subject to revision.

Many of the potential groundwater contaminations will be avoided by a successful underground injection control program. We are confident that close cooperation between our agencies will enhance the protection of our state's valuable groundwater resources.

Sincerely,

Donald A. Kuntz, P.E., Chief
Drinking Water Division

DAK/jmh

Enclosure

cc/enclosure: Mr. Homer Speaker
Ms. Karen Watson
Mr. Robert Blanco
Mr. Robert Lange

OFFICE OF ENVIRONMENTAL HEALTH SERVICES
WASHINGTON STREET, EAST CHARLESTON, WEST VIRGINIA 25305 TELEPHONE (304) 348 2981

March 2, 1982

West Virginia Water Resources Board
1205 Greenbrier Street
Charleston, West Virginia 25311

RE: Proposed Regulations For The West Virginia Underground Injection Control Program

Gentlemen:

We have completed our review of the above regulations and offer the following comments:

I. DEFINITIONS

A. Section 2.00, Page 3 - The term "drinking water" is not now defined within the regulations although it is used throughout the text. For consistency with State Health Department regulations and to assist future legal actions, we recommend that the term be defined as: "Water free from biological, chemical, physical and radiological contaminants which cause disease or harmful physiological effects. The minimum quality of the water shall conform to applicable regulations and standards of the State Department of Health."

B. Section 2.00, Definitions, Page 4 - We recommend that the definition of "public water system" be modified to concur with the federal "Safe Drinking Water Act", State Law and the State Board of Health's "Public Water Supply Regulations." As the term is now defined, it does not coincide with these definitions.

C. Section 2.00, (1), Page 6 - We would suggest that the term "underground source of drinking water" not be limited to a public water system. If the definition remains as is, the smaller drinking water systems (which are referred to throughout the text), falling outside the public water system definition, will not be addressed.

II. SECTION 3.00 CRITERIA FOR EXEMPTED AQUIFIER STATUS

Section 3.00, Subsection 3.01, Page 7 - It is unclear whether an exempted aquifer must meet all the criteria denoted under Subsection 3.01. We recommend that all the criteria should be met for an aquifer to be considered exempt.

Part (b) (1) is unclear as to its intent. Part (c) should be omitted, since its intent is covered by Part (b). As (c) is written, it is unduly restrictive in terms of assuring that a public water supply could not be developed from a water containing in excess of 3,000 mg/l total dissolved solids. Such situations should be evaluated on a case-by-case basis.

III. THE FOLLOWING SECTIONS OF THE REGULATIONS SHOULD BE REWRITTEN TO INCLUDE CONCURRENCE BY THE STATE DIRECTOR OF HEALTH WITH THE CHIEF REGARDING THE VARIOUS DECISIONS CONTAINED THEREIN. These sections refer to decisions involving contaminants in drinking water and the health of the general public. In this regard, our Department's Drinking Water Division is responsible for the protection and surveillance of the state's public water systems.

A. Section 8.00, Criteria and Standards Applicable to Class I Wells, Subsection 8.01, (d), Page 19.

B. Section 10.00, Criteria And Standards Applicable To Class III Wells, Subsection 10.01, (d), Page 30.

C. Section 12.00, Criteria and Standards Applicable to Class V Injection Wells, Subsection 12.03, Page 40.

D. Section 13.00, Injection Well Permitting Program, Subsection 13.01, (d), Page 43 and 13.05, (a), Page 49.

IV. THE FOLLOWING SECTIONS OF THE REGULATIONS NEED TO SPECIFY THAT THE CHIEF SHALL PERFORM THE ACTIVITIES THEREUNDER IN CONSULTATION WITH THE STATE DIRECTOR OF HEALTH.

A. Section 13.00, Injection Well Permitting Program, Subsection 13.01, (c), Page 42 - Also, there needs to be included in parts (a) and (c), a reference to the State Health Department's regulations in addition to the federal reference 40 CFR, Part 142. State regulations may be more stringent than the federal requirements.

B. Section 11.00, Criteria and Standards Applicable to Class IV Wells, Subsection 11.03, (d), Page 39.

V. THE FOLLOWING SECTIONS SHOULD BE MODIFIED TO INCLUDE CONCURRENT NOTIFICATIONS TO THE CHIEF AND THE STATE DIRECTOR OF HEALTH WHEN HEALTH RELATED MATTERS ARE INVOLVED. When emergency or imminent threats are recognized, both of our agencies must quickly meet their respective responsibilities. Immediate and concurrent notifications to both agencies will assist this process.

A. Section 8.00, Criteria and Standards Applicable to Class I Wells, Subsection 8.04, (c), (4), Page 25.

B. Section 10.00, Criteria and Standards Applicable to Class III Wells, Subsection 10.04, (c), (4), Page 34.

C. Section 11.00, Criteria and Standards Applicable to Class IV Wells, Subsection 11.04, (b), (2), Page 39.

VI. SECTION 4.00 CLASSES OF WELLS

A. We highly recommend that Subsections 4.01, 4.02 and 4.04 be modified by changing the ¼ mile distance to ½ mile for individual homeowner water wells and 1 mile when public water supplies are involved. The ¼ mile limit does not provide enough of a safety factor for drinking water supplies.

B. The term "drinking water" should be more specific (i.e. does it refer to an underground source that is now being used for drinking or one that has potential for development into a drinking water supply?). In our opinion, the term should incorporate a potential supply as well as one which is currently being utilized.

VII. SECTION 5.00 AREA OF REVIEW

Section 5.00, Subsection 5.03, (c), Page 13. The distance criteria noted in this section should be modified to be compatible with VI, A above.

We appreciate having the opportunity to comment on the proposed regulations. We are confident that the adoption of the above proposals will result in more adequate protection of our state's underground water resources by both of our respective agencies.

Sincerely,

Robert P. Wheeler, P.E., Director
Office of Environmental Health Services

RPW/DAK/jmh

cc: Donald Kuntz, Chief, Public Water Division

PENNZOIL EXPLORATION AND PRODUCTION COMPANY
P.O. BOX 1588 • PARKERSBURG, WEST VIRGINIA 26101 • (304) 422-6565

November 6, 1982

David W. Robinson, Chief
Division of Water Resources
1201 Greenbrier Street
Charleston, WV

RE: Comments on West Virginia
Underground Injection Control
Program Primacy Application

As I am sure you are aware, Pennzoil Company is the largest oil operator in West Virginia producing over 31 percent of the State's total crude output. Approximately 50 percent of our production comes as a result of enhanced recovery projects. We have invested over 65 million dollars in such projects in the State since 1975. Water injection wells associated with these enhanced recovery projects will be regulated under the General and Class II provisions of the proposed State UIC rules. With this in mind, we would like to take this opportunity to comment on the referenced application.

Pennzoil fully supports the State's effort to obtain primacy from the Federal EPA to administer this program. Protection of the State's natural resources, including its groundwaters, is certainly a matter of state protection and state concern. However, certain aspects of the Class II portions of the program described in the primacy application will be unnecessarily burdensome and costly to both the State and the regulated industry and at the same time provide little or no additional protection for the environment. I will elaborate on this further.

Duplicative Permitting Requirements

The proposed UIC program envisions regulation of Class II wells by the three State agencies simultaneously: 1) the Division of Water Resources, 2) the Office of Oil & Gas, and 3) the Oil & Gas Conservation Commission. Because of these duplicative permitting requirements, it is even possible repetitive public hearings on the same permit applications, about the same well(s), and on the same subject will be required. While we recognize your Division's efforts to lessen the burdens on industry by providing for like permit applications and by adopting existing Office of Oil and Gas rules by reference, we fail to see the benefits of this overlapping regulation. As the program evolves, inter-agency disputes are bound to occur and our industry, a substantial State revenue producer, will be caught in the middle and be the victim of confusion, inconsistency, misunderstandings, and delays inherent in such bureaucratic overlap. The primacy application and proposed program in our opinion do not prevent and in fact make no provisions for

settling such disputes.

Primacy with the Office of Oil & Gas

Your department has recognized the expertise of the Office of Oil and Gas with respect to Class II wells by adopting the Office's rules by reference in the primacy application. It has been our position that, based on its expertise and long time experience with the oil and gas industry, the Office should be the sole agency to administer the Class II portion of the program. This would provide sole source responsibility for protection of the environment as well as provide single source permitting for the industry. Such a program would be much more cost effective than the proposed program since it would eliminate a tremendous amount of duplication.

Alternative Method of Obtaining State Primacy

The State's primacy application states on page 13 of the Program Description:

> The Division's permit is essential to the Class II portion of the program because of the EPA requirements for public notice of all UIC permits. Neither the Department of Mines Office of Oil & Gas nor the Oil & Gas Conservation Commission have regulations which fulfill the EPA public notice requirements.

We must respectfully disagree with this statement. West Virginia's primacy application for Class II wells is being submitted under Section 1425 of the federal Safe Drinking Water Act, as stated on page 13 of the Program Description. Section 1425 sets up an alternative method of obtaining state primacy for Class II wells. Rather than having to meet all the requirements of EPA regulations (including requirements for public notice in connection with permit issuance) established under the "normal" primacy procedure of Section 1422, a state choosing to use Section 1425 need only demonstrate that its program for Class II wells meets the requirements of Section 1421 (b)(1), relating to prohibition of unpermitted injection wells; inspection, monitoring, recordkeeping, and reporting requirements; etc., and otherwise" . . . represents an effective program (including adequate recordkeeping and reporting) to prevent underground injection which endangers drinking water sources." (Section 1425 (a), Safe Drinking Water Act).

The "requirement" for public notice referred to in the portion of the Program Description quoted above derives from EPA's regulations, which are applicable only to primacy applications submitted under Section 1422. Since West Virginia's application for Class II wells is submitted under the alternative Section 1425 provisions, EPA's regulations are inapplicable, and therefore cannot impose "requirements" which need to be met in order for West Virginia to obtain primacy for Class II wells (Please refer to the attached legislative history of Section 1425, especially pages 6083-6085, for verification of the intent of Section 1425). Rather, the "requirements" for the Class II portion of West Virginia's primacy application are found in Section 1421 (b)(1) of the Act (which does not speak to public notice of permits), and in Section 1425 (a) itself, namely the requirement that the

state program represent an effective program to prevent underground injection which endangers drinking water sources.

While public notice of permits is not wholly irrelevant to the determination of whether a state's program is effective to prevent underground injection which endangers drinking water sources, it certainly must be secondary to many more important factors such as the agency's expertise, resources, and historical effectiveness in protecting water supplies. Moreover, we do not believe the Office of Oil & Gas is prevented from issuing public notice of permits, in the event such notices are determined to be necessary. A state agency may take many actions not explicity authorized by a formal regulation, so long as it does not exceed its statutory authority.

In summary, contrary to the excerpt from the Program Description quoted above, there are no "EPA requirements for public notice of all UIC permits" in a Section 1425 primacy application. Therefore, again contrary to the quoted excerpt the Division's permit is not essential to the Class II portion of the program.

In light of the very significant additional burdens placed upon Class II well operators by the cumbersome and duplicative procedures envisioned by the current primacy application, and since the only apparent reason for imposing these burdens was a mistaken belief that the EPA regulations (including those requiring public notice of permits) applicable to "normal" primacy applications under Section 1422 also apply to Class II applications under Section 1425, we request that the primacy application for Class II wells be modified to delete the duplicative permit requirements and to place permitting authority solely with the Office of Oil & Gas.

Existing Class II Injection Wells

Pennzoil has invested over 5.5 mitlion dollars in expansion of its existing Granny's Creek Field, Tariff Field and Richardson Field enhanced recovery projects this year. This has included the drilling, casing, cementing, and completion of 40 injection wells in the expanded projects. These wells are now ready for injection. However, we have not completed construction of our injection facilities and completion is not scheduled until January of 1983. Since the definition of "existing well" only included those wells which commenced injection before EPA approval of the primary application, these wells could become illegal on the day of program approval. Because these wells are in existing fields, have already been permitted by the Office of Oil and Gas and have been constructed to State standards, we respectfully request that the Department grant some sort of administrative relief on exclusion for these wells should it be necessary.

We appreciate this opportunity to provide comments on the primacy application. If you have any questions or comments, please don't hesitate to call me.

Sincerely,

PENNZOIL EXPLORATION AND
PRODUCTION COMPANY

James A. Crews
Vice President

tlb

Attachment

xc: w/Attachment
Ted Streit
Walter Miller
David C. Callaghen
Tom Huzzey

sponsibility to solve that crisis, and that the only way to do so is to make a federal bureaucracy the centerpiece of energy planning for the region's utilities, and that loan guarantees and price melding are integral parts of the federal bureaucracy's role, if one accepts all that, then the Pacific Northwest Electric Power Planning and Conservation Act is a fairly good attempt at meeting those goals. But if one wants to maintain local control over utility matters, if one believes that local utilities in the Northwest should solve their own problems like utilities around the rest of the nation must, if one believes that local citizens and ratepayers should not be saddled with extra costs in order that risks of that utility business

[page 90]

may be reduced, and, most importantly, if one is concerned that the federal government—following the precedent of this bill's passage and implementation—might be called upon to bailout other utilities and industries, then an alternative to this legislation can and must be found.

JIM WEAVER.
PETER H. KOSTMAYER.
BRUCE F. VENTO.
EDWARD J. MARKEY.
GEORGE MILLER.

SAFE DRINKING WATER ACT

P.L. 96-502, see page 94 Stat. 2757

House Report (Interstate and Foreign Commerce Committee)
No. 96-1348, Sept. 19, 1980 [To accompany H.R. 8117]

Cong. Record Vol. 126 (1980)

DATES OF CONSIDERATION AND PASSAGE

House September 23, 1980

Senate November 19, 1980

No Senate Report was submitted with this legislation.

HOUSE REPORT NO. 96-1348

[page 1]

The Committee on Interstate and Foreign Commerce, to whom was referred the bill (H.R. 8117) to amend the Safe Drinking Water Act, and for other purposes, having considered the same, report favorably thereon with amendments and recommend that the bill as amended do pass.

. . . . . .

SAFE DRINKING WATER ACT
P.L. 96-502

[page 2]

PURPOSE AND SUMMARY

In 1974, Congress passed the Safe Drinking Water Act (Public Law 93-523). That Act directed the Administrator of the Environmental Protection Agency to establish (i) national drinking water supply standards to protect public health and (ii) minimum requirements for state programs to prevent underground injection that endangers drinking water sources. The Act permitted States to assume primary responsibility for implementation and enforcement of both programs. The Act was amended in 1977 (Public Law 95-190) and 1979 (Public Law 96-63) to extend authorizations for various programs and to make technical changes.

During this Congress, the Committee has been deeply involved in issues relating to ensuring a safe supply of drinking water. The Subcommittee on Health and the Environment held a field hearing in Chicago, Illinois, on November 5, 1979, on barium levels in drinking water and held a field hearing in Pittsburgh, Pennsylvania on June 6, 1980, on drinking water problems in Western Pennsylvania. The Subcommittee also held hearings on June 9, 1980, and August 18, 1980, on the problems of small systems and on EPA's underground injection control program respectively, as well as a joint hearing with the Subcommittee on Transportation and Commerce on August 22, 1980, on hazardous waste and drinking water. The latter Subcommittee and the Subcommittee on Oversight and Investigation have also held extensive hearings, particularly on protecting drinking water sources from improper transport and disposal of hazardous waste.

Many difficult and important issues were raised in these hearings. The Committee does not purport to have comprehensively dealt with these issues in the reported bill. Rather, the Committee has confined itself in this legislation to proposing amendments to the Safe Drinking Water Act that are immediately needed to adjust deadlines, to improve Federal-State coordination, or to modify program coverage. The Committee intends in the next Congress to undertake further oversight over the Act and to recommend such changes as may be advisable. In the interim, the Committee urges the Administrator to take steps to deal with the many concerns expressed in the current oversight hearings.

The bill as reported consists of five sections. Section 1 extends for three years the power of the States to grant temporary case-by-case exemptions from the interim primary drinking water regulations. Section 2 provides an alternative means for states to receive primary enforcement authority to regulate underground injection related to oil and gas production and recovery. Section 3 deletes the underground storage of natural gas from the underground injection program. Section 4 makes various technical changes in the Act. Section 5 authorizes the Administrator to make grants to a single public water system for the purpose of developing and demonstrating a new or improved means of meeting state turbidity standards that are stricter than standards in effect under this Act.

LEGISLATIVE BACKGROUND

H.R. 8117 was introduced by Mr. Waxman, Chairman of the Subcommittee on Health and the Environment on September 15, 1980, and co-sponsored by Mr. Carter, Mr. Gramm, Mr. Staggers, Mr. Satterfield,

Mr. Preyer, Mr. Luken, Mr. Walgren, Mr. Shelby, Mr. Murphy of New York, Mr. Santini, Mr. Traxler, Mr. Bedell, Mr. Broyhill, Mr. Devine, Mr. Stockman, Mr. Dannemeyer, Mr. Lee, Mr. McClory, and Mr. Pashayan. The bill was considered by the Interstate and Foreign Commerce Committee on September 17, 1980, amended, and ordered reported by unanimous voice vote.

COMMITTEE PROPOSAL AND SECTION-BY-SECTION ANALYSIS

Section 1 extends for three years the authority of the States to exempt temporarily public water supply systems from the interim primary drinking water regulations promulgated by the Administrator. These regulations became effective on June 24, 1977 (and amended thereafter) to protect public health to the extent feasible. Under the Act, systems that are unable to comply immediately due to compelling factors (including economic factors) may obtain relief only by receiving an exemption from the State (or, in the case of a system located in a State that has not taken primary enforcement responsibility for the public water supply system program, from the Administrator).[1]

Under the Act, exemptions from the interim standards may extend only until January 1, 1981 (January 1, 1983, for systems that intend to regionalize). Representatives of the Environmental Protection Agency testified before the Subcommittee on Health and the Environment that 81% of the 61,000 community public water supply systems are now meeting the interim standards. But at least 13,600 systems—most serving fewer than 2,500 people each—are in violation of one or more of these standards and will not meet the statutory deadlines. In the great majority of these cases, noncompliance has been caused by lack of adequate leadtime or financial resources to meet the statutory deadline. Of the projected 13,600 systems in violation, it is estimated that 10,300 should be able to meet the standards using local resources, while the remainder will need outside assistance.

The Committee proposes allowing states to grant, on a case-by-case basis, additional time for systems to achieve the interim standards. Such case-by-case exemptions may extend no longer than January 1, 1984 (January 1, 1986 for systems that intend to regionalize). The Committee expects that most, if not all, systems will be able during this period to comply with the requirements of the interim standards. The additional exemption period permitted by this amendment will allow orderly planning of needed improvements and permit exploration of all available sources of funding, such as throught the Small Business Administration and the Farmers Home Administration. In some instances, the additional exemption period will allow EPA to conduct further studies, where appropriate, to corroborate interim standards whose validity has been questioned to minimize the possi-

[1] Some confusion is occasionally caused by the practice of some states of referring to an exemption as a variance. Under the Act a variance is a totally different device from an exemption. Variances may be granted only to systems which, because of characteristics of their raw water supplies, either (i) do not need to apply a treatment technology to protect public health or (ii) are unable to meet a primary drinking water regulation. Variances are not intended to be used in situations in which economic factors are the bar to compliance, and the Committee intends the granting of variances to be strictly confined to the above circumstances.

bility that systems will be forced to expend substantial sums to meet standards for which no scientific justification exists.*

The Committee wishes to emphasize in the strongest possible terms that the extension of the states' authority to exempt systems from the interim standards should not be interpreted as an invitation to slacken efforts to meet the interim standards. The Committee's proposal retains unchanged the requirement of present law that exemptions be granted on a case-by-case basis and only to those systems that are unable, due to economic factors, to comply immediately. All exemptions are to require compliance by the exempted system as soon as practicable, and require increments of progress by the exempted systems. Thus the Committee urges States, wherever feasible, to assure compliance well in advance of the January 1, 1984 (or, where applicable, January 1, 1986) date.

In setting compliance dates, the state should require each noncomplying system to perform appropriate engineering studies to determine feasible compliance alternatives. These studies should be used by the State to set a final compliance date that gives due regard to the individual circumstances of each system. The Committee does not believe that whether a system is privately- or publicly-owned is relevant in determining this date. Until the standards are attained, the Committee believes that noncomplying systems should take appropriate interim steps to reduce any risk to public health (e.g. supplying bottled water to families where appropriate) and notify customers of the violation as required by the Act. If these steps are implemented in good faith, the Committee expects that it will not be necessary for EPA to exercise its authority to revoke exemptions or whether an exemption is granted.

The Committee also wishes to stress that the extension of the States' authority to grant exemptions from the interim standards does not diminish the Administrator's power to act in cases of emergency under Section 1431 of the Act. The Committee expects that the Administrator will act in such circumstances to eliminate any imminent risk of harm to the public health. The Committee emphasizes that, as stated in H. Rept. 93-1185, only the risk of harm, and not the harm itself, need the imminent to authorize action by the Administrator under this section. When emergency actions are taken under this Section, every effort should be made to ensure adequate alternative supplies at no greater cost and inconvenience to users.

Section 2 of the bill provides an alternative means for States to acquire primary enforcement responsibility for the control of underground injection related to the recovery and production of oil and natural gas.

On July 24, 1980, the Administrator established minimum requirements for State programs to prevent underground injection that endangers drinking water supplies. Under the Act, a State may receive primary enforcement responsibility to implement and enforce these regulations upon a timely showing to the Administrator that the State

*The Committee wishes to emphasize also the importance of efforts to develop standards for the many organic chemicals that may be present in drinking water. The Committee urges that these substances be of the object of intensive efforts to develop valid standards to protect public health. The need to review existing standards does not imply that new standards should not be established as appropriate.

has adopted and will implement an underground injection control program which meets the requirements of the Administrator's regulations. Under the statutory scheme, a State's program (or, in cases in which the State fails to make a satisfactory showing, a program prescribed by the Administrator) will take effect no later than July 24, 1982.

Most of the 32 states that regulate underground injection related to the recovery or production of oil or natural gas (or both) believe they have programs already in place that meet the minimum requirements of the Act including the prevention of underground injection which endangers drinking water sources. This is especially true of the major producing states where underground injection control programs have been underway for years. It is the Committee's intent that states should be able to continue these programs unencumbered with additional Federal requirements if they demonstrate that they meet the requirements of the Act.

The Committee thus proposes to allow any State, in lieu of meeting the Administrator's regulations, to assume primacy for controlling underground injection related to oil and gas recovery and production by demonstrating that its program meets the requirements of subparagraphs (A) through (D) of section 1421(b)(1) (which relate to prohibiting injection not authorized by rule or permit on or after the date the program is approved, requiring that no injection be permitted or authorized that endangers drinking water sources, establishing inspection, monitoring, record-keeping and reporting requirements and applying the program to injection by Federal agencies and to all injection whether or not occurring on property owned or leased by the United States; and represents an effective program (including adequate record-keeping and reporting to the Administrator) [1] to prevent underground injection which endangers drinking water sources. These requirements are the same as must be met by the Administrator in establishing his regulations, thus ensuring that a State program pursuant to an alternative demonstration results in an equivalent degree of protection for drinking water sources. The Committee expects that alternative demonstrations will be submitted on the same schedule as demonstrations required for state programs meeting Federal regulations promulgated under Section 1421(b). Before acting on any alternative under this section, the Administrator must provide opportunity for public hearing and comment.

The Committee does not seek to place an impossible burden on either the States or the Administrator. Rather, the Committee expects that the States will present information to show the effectiveness of their proposed alternative programs. So long as the statutory requirements are met, the States are not obligated to show that their programs mirror either procedurally or substantively the Administrator's regulations. The demonstration required by a state would be comparable to the demonstration required of the Administrator in promulgating regulations under Section 1421(b). Judicial review of the Administrator's determination is in accordance with Section 1448(a) of the Act.

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[1] EPA as part of its continual responsibility to monitor approved programs is entitled to have reasonable access to any and all reports, records and data collected by the state. In addition the state must submit an annual report to EPA which includes an account of all complaints received by the state and the action taken on them.

Under certain circumstances, the Administrator will be able to require a new demonstration pertaining to certain aspects of a State program. A State could be required to renew its approved alternative program upon revision or amendment by the Administrator of regulations pertaining to underground injection relating to oil and natural gas. The Committee expects that such demonstrations will be required when the amended regulations are deemed necessary to meet the minimum requirements of Section 1421(b). A new demonstration may also be required if the Administrator determines, by rule after public hearing, that a State's demonstration is no longer adequate. This authority is intended for use by the Administrator in instances in which a State significantly alters a program for which a demonstration has been made, or in which the Administrator determines that new information about the endangerment of drinking water supplies necessitates a new demonstration.

A State which has made an alternative demonstration will be considered to have the same primary enforcement powers and obligations as a State that achieved primacy by adopting the Administator's regulations. States making alternative demonstraitons are thus eligible for grant funds under Section 1443; State rules and permit requirements are, in certain instances, federally enforceable under Section 1423; and the Administrator may assume enforcement of a State program under Section 1423 if he finds that the State is failing to carry out its program.

Section 3 of the bill deletes the underground storage of natural gas from the statutory definition of underground injection. As proposed, the Administrator's regulations for underground injection control programs required that new and existing natural gas storage facilities meet certain construction and monitoring requirements. Persuaded that sufficient evidence does not exist indicating that natural gas storage poses a threat to drinking water quality and recognizing that storage operators have an economic incentive to prevent gas leakages, the Administrator in his final regulations deleted these requirements, but mandated that natural gas storage be further studied for a three-year period to determine the need for regulation. This latter mandate was motivated in large part by the Administrator's belief that all forms of underground injection must be in some way regulated under the Act.

As a result, the natural gas storage industry is still faced with the possibility of Federal regulation. This possibility could well discourage needed expansions of storage facilities to meet the needs of areas with substantial demands for natural gas. The Committee believes that this uncertainty about future regulation is undesirable, given the lack of evidence tending to show that gas storage may pose a risk to health.

The Committee thus proposes to remove natural gas storage from the definition of underground injection. This exclusion is not intended to exempt from regulation underground injection other than gas storage which may be undertaken by gas storage operators. In addition, the exclusion applies only to natural gas as it is commonly defined, and not to other injections of matter in a gaseous state. Finally, the Committee does not intend to preclude the Administrator from studying gas storage further, and from recommending legislative modification should credible evidence indicate that natural gas storage may in some way pose a threat to drinking water quality and thus to public health.

Section 4 makes various technical alterations to the Safe Drinking Water Act.

Section 4(a) inserts an inadvertently omitted section heading at the beginning of Section 1415.

Section 4(b) allows exemptions to be granted by states to systems that were not in operation when the requirement for which the exemption is granted took effect. To obtain such an exemption, a system would have to show that no alternative source is reasonably available. All other criteria for and limitations upon exemptions would apply to such exempted systems. The purpose of this amendment is to allow newly-formed systems to obtain exemptions in instances in which immediate application of the standard would result in the closing of the systems, a result that is at variance with the philosophy of the Safe Drinking Water Act.

Section 4(c) and 4(d) both pertain to the underground injection control program. Section 4(c) allows States to continue their existing underground injection control programs pending approval or disapproval of their program by the Administrator. Section 4(d) extends the eligibility of States to receive grant funding under Section 1443 for underground water source protection programs.

Section 5 authorizes the Administrator, at his discretion, to make grants pursuant to Section 1442 of the Act to a public water system which is required, under State or local law, to meet standards relating to drinking water turbidity which are more stringent than standards promulgated under the Safe Drinking Water Act. The grants may be used by the system for the development and demonstration (including construction or installation) of any water filtration system which will demonstrate a new or improved method of meeting such more stringent standards. The Committee emphasizes that it does not intend such grants to be made to more than a single public water supply system nor does the Committee intend that this provision constitute an additional authorization over and above that previously provided to carry out Section 1442. This provision does not reflect dissatisfaction with the national turbidity standard but was intended to remedy a hardship case.

Cost Estimate

The Committee concurs with the cost estimate of the Congressional Budget office included herein.

Inflationary Analysis

The Committee does not expect the present legislation to have any inflationary impact.

Agency Reports

The Committee has received no reports from agencies regarding this legislation.

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, D.C., September 19, 1980.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce, U.S. House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: Pursuant to Section 403 of the Congressional Budget Act of 1974, the Congressional Budget Office has reviewed

[page 8]

H.R. 8117, a bill to amend the Safe Drinking Water Act and for other purposes, as ordered reported by the House Committee on Interstate and Foreign Commerce, September 17, 1980.

The bill makes a number of amendments which alter the existing requirements states must meet in implementing safe drinking water programs. These provisions are not expected to result in any significant cost to the Federal Government.

H.R. 8117 also directs the Administrator of E.P.A. to make grants to a public water system that is required by state or local law to meet certain specific standards more stringent than those prescribed by Federal law. Should this bill be enacted, funds for carrying out this provision would fall under the existing authorization. The only public water system that is currently known to meet the specific requirements of this bill is in the Village of Cayuga, New York. If this particular water system were to receive the grants as directed in this provision, approximately $250,000 would have to be allocated for this purpose, to be spent over a 12-month period.

Should the Committee so desire, we would be pleased to provide further details on this estimate.

Sincerely,

ALICE M. RIVLIN,
Director.

* * * * * * * * *

West Virginia Oil and Natural Gas Association

DIRECTOR EMERITUS
J. ROBERT HORNOR, Clarksburg

DIRECTORS
J. G. CALDWELL, Pittsburgh
EDWARD B. CALLAND, Charleston
JAMES R. CRAMBLETT, Charleston
JAMES A. CREWS, Parkersburg
E. B. CURRY, Huntington
THOMAS B. DUNN, Buckhannon

JAMES A. CREWS, President
P. O. Box 1588
Parkersburg, West Virginia 26101

THOMAS B. DUNN, Vice President
P. O. Box 40
Buckhannon, West Virginia 26201

REX BURFORD, Secretary-Treasurer
P. O. Box 3231
Charleston, West Virginia 25332

DIRECTORS
WILLIAM W. FERRELL, Charleston
JAMES B. GEHR, Clarksburg
LOYD C. HAYNES, Charleston
THOMAS A. KUHN, Clarksburg
RALBERN H. MURRAY, Clarksburg
PAUL D. PHILLIPS, Charleston
JAMES C. STEPHENSON, Mannington
JACK L. TRITTIPO, Charleston
GURMER WAMOCK, Parkersburg

November 8, 1982

West Virginia Department of
Natural Resources
1201 Greenbrier Street
Charleston, West Virginia 25311

Gentlemen:

Re: Proposed Application to Administer the Underground Injection Control Program

As Chairman of the Taxation and Legislation Committee of the West Virginia Oil and Natural Gas Association, I write to protest your proposal to establish a dual-permit structure for the drilling or other activation of the type of well described in your proposed Regulation 4.02(b) as "For enhanced recovery of oil or natural gas".

Section 4 of your proposed application, most clearly in the flow chart, sets out the procedure for dual consideration of permit applications--not only by the Administrator of Oil and Gas under his express powers granted by Code § 22-4-10a, but also and separately by your Division of Water Resources. At the public hearing on October 28, 1982, Assistant Attorney General Karen Green Watson stated that the source of your jurisdiction in this regard was Code ch. 20, art. 5A. She further stated her view that partial UIC primacy could not be assigned to the Administrator, because the Administrator's governing statute made no provision for public notice and public hearings concerning permit applications. She said she had not considered whether the Administrator could lawfully adopt a regulation for public notices and hearings so as to comply with the Federal requirements.

With all deference, we can not accept Ms. Watson's reasoning. As shown below, Federal law allows regulation of Class II wells just as has been done for many years in the past under Code ch. 22, and Ms. Watson's procedural analysis of the Administrator's statute applies equally to your statute.

As for the Federal law, I have been apprised of the contents of a protest letter to be filed by Pennzoil Company. Its reasoning seems to us to be beyond rebuttal, and we adopt it unequivocally: since your application is filed under Sec. 1425 of the Safe Drinking Water Act as far as Class II wells are concerned, public notice and hearing is not required by Federal law.

As for the West Virginia law which Ms. Watson cited, you can issue permits only under the procedure established by Code § 20-5A-7, acting through your Chief of the Division of Water Resources. Neither this section nor any other applicable statute expressly provides for public notice and hearing by the Chief. Now if you can simply add notice and hearing by regulation, so can the Administrator. Stated another way, if the Administrator can not have partial UIC primacy because his statute omits public notice and hearing, then a fortiori you have no right to any UIC primacy: your statute is equally devoid of public notice and hearing for permits under Code § 20-5A-7.

A final ground of our protest is jurisdictional. Code § 22-4-10a gives the Administrator express jurisdiction over permits for enhanced oil recovery wells. Code ch. 20, art. 5A gives you no such express jurisdiction over enhanced oil recovery wells, or over any UIC wells. Code § 20-5A-3(a)(1) specifies your role under the "Federal Water Pollution Control Act" and the "National Pollutant Discharge Elimination System". We can not find comparable powers with reference to any UIC role under the entirely separate Safe Water Drinking Act or its umbrella, The Public Health Service Act.

In conclusion, the Association urges in the strongest terms that your proposed application to administer the underground injection control program should be revised to delegate partial primacy to the Administrator for Oil and Gas for all permit purposes involving enhanced oil recovery wells.

Respectfully,

H. L. Snyder

HLS/skn

Copies to WVO&NGA Executive Committee
WVO&NGA Taxation and Legislation Committee
Karen Green Watson, Esq.