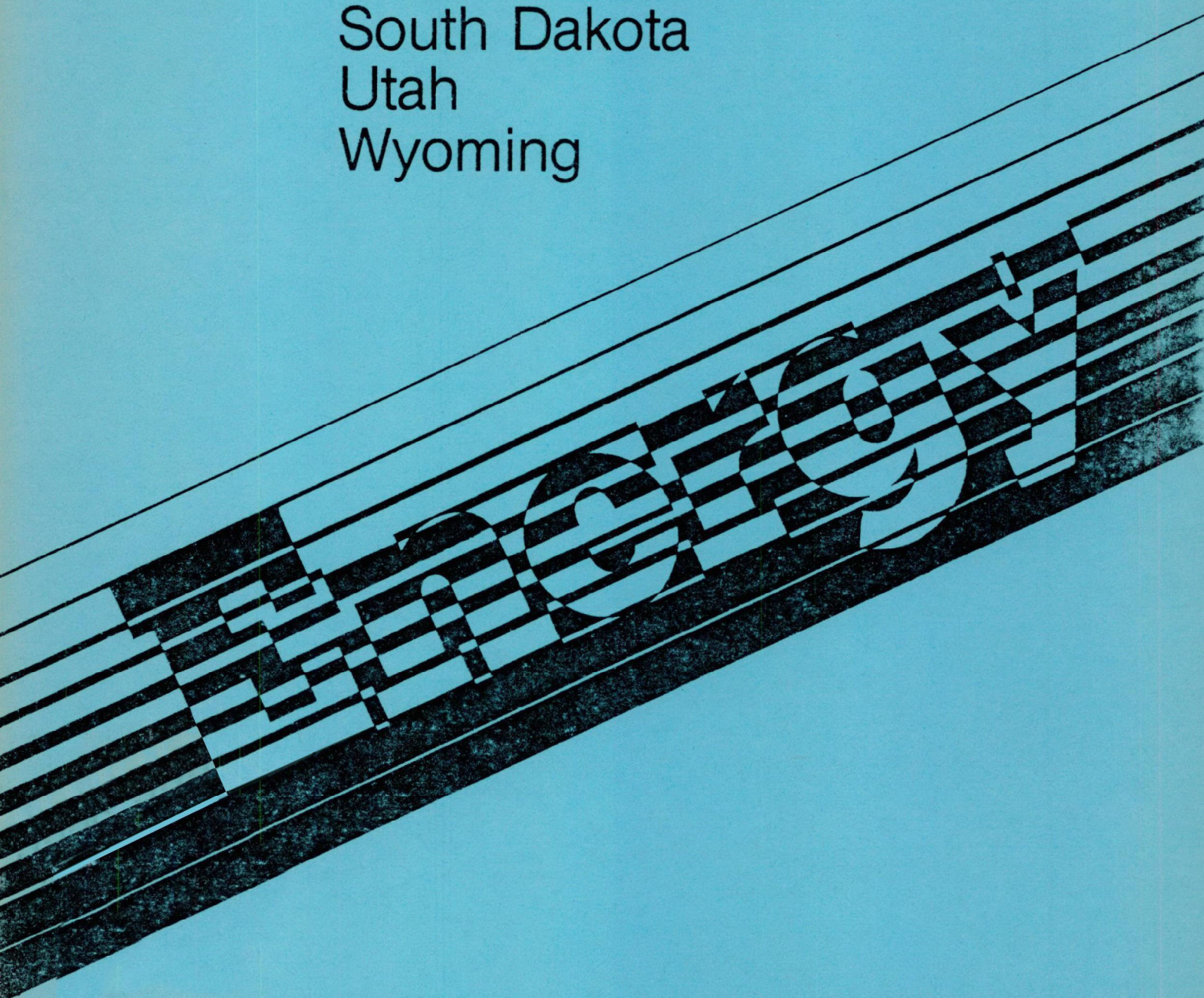


Energy Project Review and Permitting Status Report

Colorado
Montana
North Dakota
South Dakota
Utah
Wyoming



#341



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
1860 LINCOLN STREET
DENVER, COLORADO 80295

DEC 24 1980

R8
6106
C.1
EPA 908-R-80-
219

Ref: 8EA

Dear Colleague:

The six states (Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming) in EPA Region VIII have been experiencing increasing energy resource development in recent years. The future promises that this development will increase even more dramatically. The development of these resources will play a vital role in the Nation's attempt to achieve energy self-sufficiency. These states are also rich in high quality environment. I am committed to the protection of this high quality environment and to being responsive to the Nation's energy self-sufficiency goal. The EPA Region VIII Energy Policy Statement reflects this commitment.

One of our commitments is to routinely provide regional energy/environment information to interested persons. I am pleased to provide you with the second "Energy Project Review and Permitting Status Report" prepared by EPA Region VIII. This report provides information on our regulatory activities taken during the second quarter of this calendar year.

You will note that the Region took 35 regulatory actions regarding energy projects in the quarter. This represents one energy regulatory action every other working day. The environmental benefits of the regulatory process are highlighted for key decisions made during the quarter.

We hope you will find this information useful. If you have comments, questions, and/or suggestions for improvement, please direct them to Mr. Terry Thoen, Director, Energy Policy Coordination Office at 303/837-5914.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Roger L. Williams".

Roger L. Williams
Regional Administrator

U.S. EPA Region 8 Library
800-L
999 18th St., Suite 500
Denver, CO 80202-2466

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Energy Project Review and Permitting Report
(Volume I - - No. 2)
EPA Region VIII

PURPOSE/SCOPE OF REPORT

This status report discusses energy project review and permitting actions taken by EPA during the second quarter 1980 (April 1 to July 1) for the six Region VIII States of Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming. Actions include Environmental Impact Statement (EIS) review, Prevention of Significant Deterioration (PSD) permits, National Pollutant Discharge Elimination System (NPDES) permits, and Section 404 (dredge and fill permit) reviews. This report discusses actions taken in both delegated and non-delegated program States. As of July 1, 1980, the PSD program had been delegated to North Dakota and Wyoming. The NPDES program has been delegated to Colorado, Montana, North Dakota, and Wyoming. This status report also discusses highlights of the review and permitting actions. Finally, because of the attention which synthetic fuels development has received, a project summary is provided.

PROGRAM SUMMARIES

The Region made 35 regulatory decisions in the second quarter of 1980 - - more than one every other working day. There were no denials or proposed denials during the quarter. Table 1 repeats the summary information provided in the first quarterly report (Volume I, No. 1) for calendar year 1978 and 1979.

The Region reviewed three draft and two final EIS' for energy projects during the quarter. Table 2 summarizes these actions by State and Appendix 1 lists the specific project, the assigned EPA review rating, and an explanation of EPA's rating system. EIS' which have action pending during the next quarter are also listed.

A total of 14 PSD permit applications for energy projects were processed during the quarter. Two of the applications resulted in non-applicability determinations. Table 3 provides a summary by State and Appendix 2 lists the specific projects. Also listed in the Appendix are PSD actions which are pending. Table 4 provides additional detail on the type and size of projects permitted.

There were 11 "major" energy project NPDES permits issued during the quarter. The first quarterly report included figures on permits issued for oil and gas wells. Since these are fairly routine non-complex permits it has been decided to distinguish these from the more complex projects in discussions on program summaries. Table 5 provides a summary by State. Appendix 3 lists all specific permits issued and pending. Table 6 provides additional details on the type of projects permitted and pending.

There were 5 actions taken on 404 concurrences during the quarter. Table 7 summarizes these actions by State and Appendix 4 lists the specific project. Appendix 4 also lists pending actions. Table 8 provides additional project detail.

Due to the attention which the development of synthetic fuels has received, Table 9 provides a listing of the known commercial size projects proposed for Region VIII states. Also shown is the project status. If all of the synthetic fuels projects were constructed and operated at full capacity a total of 1.4 million BPD of oil equivalent would be provided. This represents a significant portion of the 2 million BPD goal by 1992 established in the Energy Security Act (S.932).

PROGRAM HIGHLIGHTS

Several regulatory actions taken during the quarter deserve special mention. These fall into the categories of projects which exhibit a uniquely effective environmental control system, those projects for which a higher degree of control was prescribed in the permit than initially proposed in the application, and pending permit applications which may represent an environmentally unfavorable project (i.e., may result in permit denial).

Also highlighted are pertinent regulatory actions taken by EPA which are examples of coordinated, responsive, and effective government.
EIS.....

The five EIS reviews were relatively routine. Although we expressed environmental reservations concerning the MAPCO pipeline project and expressed concerns about the adequacy of the final EIS for the Superior Oil Shale project, neither of the EIS' nor the project represented noteworthy concern.
PSD.....

Air PSD permits were issued for 3 power plants totalling 4050 MWe electrical generating capacity. The IPP plant (3000 MWe) will be located in West Central Utah and is designed to burn low sulfur bituminous coal. A comparison of the permit limits for the plant with the EPA promulgated New Source Performance Standards (NSPS) are shown below:

	<u>NSPS</u>	<u>IPP</u>
SO ₂ , % removal	70.	90.
Particulate, pounds per million BTU	0.03	0.02
NO _x , pounds per million BTU	0.6	0.55

EPA prescribed the lower NO_x emission rate because it was felt that combustion of low sulfur bituminous Western coal would not experience the same degree of slagging and corrosion that would be experienced with a high sulfur bituminous Eastern coal. The limit for subbituminous coal is 0.5 pounds per million BTU. It was judged that Best Available Control Technology (BACT) would not be able to meet the subbituminous NO_x limit because of a limited amount of corrosion that would occur by operating the boiler at conditions necessary to meet 0.5 pounds per million BTU.

The Hunter Power Plant Units 3 and 4 (800 MWe) will be constructed in Central Utah. It is designed to achieve 90% SO₂ control, 0.55 pounds NO_x per million BTU, and 0.03 pounds particulate per million BTU. The plant will utilize a baghouse for particulate control.

PSD permit applications have been received for four facilities which may be difficult to approve. Three of these projects are located in Central North Dakota. PSD permits have been issued to three coal fired power plants with a total generating capacity of 2320 MWe and a 250 million SCFD coal gasification plant. Gas production with associated sulfur recovery plants also exist in the general vicinity. Air quality modelling performed by North Dakota has shown that Class I SO₂ PSD increments for the North and South Units of Theodore Roosevelt National Park have been completely consumed. PSD applications have been filed for a 550 MWe coal fired power plant, a 48,000 BPD coal to methanol plant and a gas sweetening plant in the same area. The question is obvious.....how can these facilities be permitted if the Class I increment is exhausted? Extensive efforts are necessary to confirm existing or to develop new long distance cumulative modelling capability appropriate for this area. It is also anticipated that permit applications will be received for additional power generating facilities and synthetic fuels projects in the same area.

The fourth project which may have difficulty receiving a PSD permit is the 500 MWe Warner Valley power plant proposed for Southwestern Utah. Preliminary air quality modelling shows Class I SO₂ violations at Zion National Park which is about 16 miles from the proposed site. An estimated date for decision is by October 1, 1980.
NPDES.....

An important note to potential NPDES applicants is that the NPDES portion of the May 19, 1980 Consolidated Permit Regulations is now being implemented. Application Forms 1 and 2c will be required for the renewal of existing NPDES permits. These forms are more extensive than the old forms and have new analytical requirements. Revised forms for new dischargers have not been completed. Until these new forms are available new applicants will use the old forms.

The Northern Border Pipeline Project represents an example of successful efforts to coordinate NPDES permits issued by 4 States and 2 EPA Regional Offices. The NPDES permit for InterNorth, Inc. (SD-0025429) is being modified to include both discharges from hydrostatic testing of pipelines and dewatering of excavations from the company's operations in South Dakota. The modifications will allow the company greater flexibility in dealing with the various conditions that may be encountered during pipeline construction and repairs, yet require adequate environmental controls of the discharges. Permit conditions and the general approach of the permit were coordinated with the States of Iowa, Montana, and North Dakota, and the Region VII office of the EPA with the objective of having similar permits being issued for the project in all four states.

404.....

The principle environmental improvements resulting from 404 actions were better location and scheduling of pipeline crossings so as not to interfere with critical spawning areas, minimizing wetland fill, revegetation of disrupted areas, pipeline construction techniques which minimized wetland losses, and reduced stream channelization.

Energy Project Review
and Permitting Report

TABLE 1

Regulatory Actions - Energy Facilities

EPA Region VIII

	<u>CY 1978</u>	<u>CY 1979</u>	<u>CY 1980</u>	<u>Estimated CY 1981-1985</u>
EIS Reviews	9	41	35+	
PSD Permits	28	48	40+	
NPDES Permits	25	62	60+	
404 Actions		11	30+	
	<hr/>	<hr/>	<hr/>	
	62	162	165	about 200 per year
Note 1	Actions reflect those taken both by EPA and delegated states. EPA actions accounted for 100 of the 162 calendar year 1979 total.			
Note 2	PSD permit activity for 1980 may be less than 40+ with a reduced number of mine applications due to the recent Alabama Power decision.			
Note 3	The 1981-1985 actions assume a 1980 base plus an induced synthetic fuels and coal conversion energy program.			

Energy Project Review
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September 1980

TABLE 2
Summary of Energy EIS Actions

	<u>1st Quarter 1980</u>	<u>2nd Quarter 1980</u>	<u>Pending</u>
Colorado	2	1	1
Montana	1	1	2
North Dakota	0	0	0
South Dakota	0	0	0
Utah	0	1	1
Wyoming	1	0	0
Multi-State	<u>0</u>	<u>2</u>	<u>1</u>
TOTAL	4	5	5

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TABLE 3

Summary of Energy PSD Permits Issued/Pending

	<u>1st Quarter 1980</u>	<u>2nd Quarter 1980</u>	<u>Pending</u>
Colorado	2	3	8
Montana	0	0	3
North Dakota	1	0	3
South Dakota	0	0	0
Utah	0	3	4
Wyoming	<u>5</u>	<u>6</u>	<u>0</u>
TOTAL	8	12	18

Energy Project Review
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TABLE 4
Energy PSD Actions - Issued/Pending

1st Quarter 1980

1. PSD Actions

8 permits issued
12 non-applicability determinations
20

2. PSD Permits issued by category

Coal mine	3	4.2 million tpy
Power Plant	1	440 MWe
Steam Boiler	1	- - -
Compressor station	2	- - -
Coal preparation plant	<u>1</u>	- - -
	8	

2nd Quarter 1980

1. PSD Actions

12 permits issued
2 non-applicability determinations
14

2. PSD permits issued by category

Uranium mine	1	1000 ton per day ore
Power plant	3	4050 MWe
Refinery units	2	20,000 BPD
Compressor station	4	- - -
Gas Sweetening plant	1	520x10 ⁶ scfd
Coal-fired industrial	<u>1</u>	- - -
	12	

Permits Pending by Category

Power Plant	2	1050 MWe
Compressor station	6	- - -
Coal-fired industrial	1	- - -
Oil shale	2	7000 BPD
Oil/Gas	3	- - -
Coal liquefaction	1	48,000 BPD methanol
Gas Sweetening plant	<u>3</u>	264x10 ⁶ scfd
	18	

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TABLE 5

Summary of NPDES Actions
(Energy Related)

	<u>1st Quarter 1980</u>	<u>2nd Quarter 1980</u>	<u>Pending</u>
Colorado	5	1	53 (7)
Montana	7	2	10 (3)
North Dakota	0	1 (1)	4
South Dakota	0	0	3 (2)
Utah	0	6 (1)	12
Wyoming	<u>3</u>	<u>23</u> (20)	<u>35</u> (34)
TOTAL	15	33 (22)	117 (46)

Note: Oil and gas wells are shown in parentheses. Their total is reflected in the total.

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TABLE 6
NPDES Permits Issued/Pending
(Energy Related)

A. NPDES Permits Issued

	<u>1st Quarter 1980</u>		<u>2nd Quarter 1980</u>	
	<u>New</u>	<u>Renewed</u>	<u>New</u>	<u>Renewed</u>
Delegated States*	7	8	10	17
EPA States**	0	0	3	3
Total	15		33	

B. Permits Issued by Category

	<u>1st Quarter 1980</u>	<u>2nd Quarter 1980</u>
Uranium	0	1
Coal Mines	6	8
Power Plants	6	2
Refineries	0	0
Oil Shale	0	0
Oil & Gas	<u>3</u>	<u>22</u>
Total	15	33

C. Permits Pending by Category

	<u>Backlog</u>	<u>Additional Permits Due to expire by 4-1-81</u>
Uranium	10	8
Coal Mines	45	45
Power Plants	6	16
Refineries	8	13
Oil Shale	1	1
Oil & Gas	46	212
Natural Gas Liquids	<u>1</u>	<u>0</u>
Total	117	295

*Delegated states are Colorado, Montana, North Dakota and Wyoming.

**EPA States are Utah and South Dakota.

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TABLE 7

Summary of 404 Actions
(Energy Related)

	<u>1st Quarter 1980</u>	<u>2nd Quarter 1980</u>	<u>Pending</u>
Colorado	0	1	1
Montana	2	1	0
North Dakota	0	3	0
South Dakota	0	0	0
Utah	0	0	0
Wyoming	<u>0</u>	<u>0</u>	<u>0</u>
Total	2	5	1

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TABLE 8
404 Permit Concurrences by Category
(Energy Related)

	<u>1st Quarter 1980</u>	<u>2nd Quarter 1980</u>	<u>Pending</u>
Pipeline	1	2	0
Transmission	0	1	0
Fill/riprap	0	1	0
Mine	0	1	1
Erosion control	<u>1</u>	<u>0</u>	<u>0</u>
	2	5	1

TABLE 9
Commercial Synthetic Fuel Activities

Summary

A. Oil Shale Projects

<u>Project</u>	<u>Approximate Size (BPD)</u>	<u>Status</u>	<u>State</u>
White River	100,000	In courts	UT
Paraho	10,000	Demonstration Design	UT
TOSCO	50,000	Feasibility study	UT
Geokinetics	20,000	Limited Production	UT
Cathedral Bluffs	85,000	Module construction	CO
Colony	46,000	Construction	CO
Occidental	1,000	Construction	CO
Rio Blanco	75,000	Pilot construction	CO
Superior	12,000	Demonstration design	CO
Union	9,000	Construction	CO
Chevron	100,000	Planning	CO
Exxon	60,000	Planning	CO
NOSR	50,000-	Planning	CO
	200,000		
Mobil	50,000	Planning	CO
Cities Service	50,000	Planning	CO
Equity	1,000	Limited production	CO

TOTAL BPD = 720,000

B. Coal Gasification Projects

<u>Project</u>	<u>Approximate Size (MMCFD)</u>	<u>Status</u>	<u>State</u>
Great Plains	125	Construction	ND
Panhandle Eastern	250	Planning	WY
Peoples Gas	250	Planning	ND
Lake DeSmet	250	Feasibility study	WY
Tenneco	250	Planning	MT
Mountain Fuel	275	Planning	UT
Washington Energy	?	Planning	MT
Rocky Mountain Energy	250	Feasibility study	WY
Northern Resources, Inc.	19	Preliminary Feasibility Study	MT
Utah International	125	Planning	MT

TOTAL BPD OE = 350,000

Synopsis (cont.)

C. Coal Liquefaction Projects

<u>Number</u>	<u>Project</u>	<u>Size</u> <u>(BPD methanol)</u>	<u>Status</u>	<u>State</u>
1	Exxon	?	Long range Planning	WY
2	Circle West	15,588	Feasibility Study	MT
3	W. R. Grace	35,833	Feasibility Study	CO
4	Wentworth Bros.	178,571	Planning	ND
5	Dunn Nokota	83,262	Feasibility Study	ND
6	Mobil	40,000 (gaso.)	Planning	WY
7	American Methyl	178,571	Planning	WY
8	Northern Natural Gas	20-25,000	Planning	ND
9	Hampshire Energy	20,000 (gaso.)	Planning	WY

TOTAL BPD OE = 250,000

D. Tar Sands Projects

<u>Number</u>	<u>Project</u>	<u>Size (BPD)</u>	<u>Status</u>	<u>State</u>
1	Asphalt Ridge	25,000	Pilot design	UT
2	Great Nat. Corp.	8-25,000	Pilot planning	UT
3	Standard Oil	50,000	Feasibility study	UT

TOTAL BPD = 100,000

TOTAL SYNTHETIC FUELS = 1,420,000 BPD OE

APPENDICES

- 1 EIS Reviews
- 2 PSD Actions
- 3 NPDES Actions
- 4 404 Actions

Energy Project Review
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APPENDIX 1

Energy EIS Reviews

<u>Title</u>	<u>Draft</u>	<u>Final</u>	<u>Rating*</u>	<u>State</u>
<u>1st Quarter 1980</u>				
1. Missouri Basin Power Project - Laramie River Power Plant		X	2	WY
2. Craig Station - Unit 3		X	1	CO
3. Northern Powder River Basin Coal		X	1	MT
4. Yampa Project Transmission line		X	1	CO
<u>2nd Quarter 1980</u>				
1. Supplement V to Libby Dam and Lake Koocanusa	X		LO-2	MT
2. MAPCO's Rocky Mtn. Liquid Hydrocarbons Pipeline	X		ER-2	CO, UT, WY
3. Superior Land Exchange and Oil Shale Development		X	2	CO
4. Trailblazer gas pipeline	X		LO-2	CO, WY
5. Emery Station Unit 2		X	1	UT
<u>PENDING</u>				
<u>TITLE</u>	<u>DRAFT</u>	<u>FINAL</u>	<u>EST. DATE</u>	<u>STATE</u>
1. Kootenai River Hydroelectric		X	?	MT
2. Green River-Hams Fork - regional coal leasing	X		7/8/80	CO, WY
3. Libby Dam and Lake Koocanusa		X	7/28/80	MT
4. Rocky Flats Plant Site	X		?	CO
5. Allen Warner Valley	X		8/22/80	UT

*EPA EIS Rating System
- Draft EIS

Environmental Impact of Action

LO - Lack of Objections

ER - Environmental Reservations

EU - Environmentally Unsatisfactory

Adequacy of EIS Information

1. Adequate description

2. Insufficient information

3. Inadequate

- Final EIS

Environmental Impact of Action

1. No comment

2. Comments sent/Final EIS is satisfactory

3. Environmental reservations sent to agency

4. Environmentally unsatisfactory - CEQ referral

Energy Project Review
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APPENDIX 2
Energy PSD Actions

<u>1st Quarter 1980</u>	<u>Type</u>	<u>State</u>
1. Colorado Ute	Power plant	CO
2. Colorado Interstate Gas	Compressor station	CO
3. Energy Transportation Co.*	Coal preparation plant	WY
4. FMC Skull Point Mine*	Coal mine	WY
5. Shell Oil*	Coal mine	WY
6. University of WY*	Steamboiler	WY
7. Colorado Interstate Gas*	Compressor station	WY
8. Knife River Coal Co.*	Coal mine	ND
 <u>2nd Quarter 1980</u>		
1. Colorado Interstate Gas	Compressor station	CO
2. Platte River Power Authority	Power plant	CO
3. Hunter Units 3 and 4	Power plant	UT
4. Panhandle Eastern	Compressor station	CO
5. Martin Marietta	Coal-fired cement complex	UT
6. Intermountain Power Project	Power plant	UT
7. Cotter Corporation	Uranium Mine	WY
8. Marathon Pipeline Co.	Crude Oil Tank	WY
9. Glenrock Refinery	Crude Topping Unit	WY
10. Natural Gas Pipeline Co.	Compressor Station	WY
11. Mountain Fuel Supply	Compressor Station	WY
12. Chevron, USA	Gas Sweetening Plant	WY

*State issued permit

APPENDIX 2 (continued)

Energy PSD Actions

Pending

<u>Project</u>	<u>Type</u>	<u>Estimated Decision Date</u>	<u>State</u>
1. Warner Valley	Power plant	10/1/80 proposed	UT
2. Gary Refining	Refinery modification	?	CO
3. Shell Oil Co.	Gas processing plant	?	MT
4. High Prairie Energy	Gas sweetening	7/17/80 proposed	MT
5. WESRECO	Refinery modification	6/27/80 proposed	UT
6. AMOCO Prod. Co.	Gas processing	?	UT
7. CO Interstate Gas	Compressor expansion	7/31/80 proposed	CO
8. CO Interstate Gas	Compressor station	7/31/80 proposed	CO
9. CO Interstate Gas	Compressor expansion	7/31/80 proposed	CO
10. CO Interstate Gas	Compressor expansion	7/31/80 proposed	CO
11. CO Interstate Gas	Compressor expansion	7/31/80 proposed	CO
12. CO Interstate Gas	Compressor station	7/31/80 proposed	CO
13. Geokinetics	Oil Shale	10/80 proposed	UT
14. Paraho	Oil Shale	On hold	CO
15. Malmstrom AFB	Heating Plant	On hold	MT
16. Antelope Valley 13	Power Plant	?	ND
17. Nokota	Coal liquefaction	?	ND
18. Warren Petroleum	Gas sweetening Plant	?	ND

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APPENDIX 3

Energy NPDES Actions

2nd Quarter 1980

<u>COMPANY</u>	<u>TYPE</u>	<u>RENEWAL (R) NEW APPLICATION (N)</u>	<u>STATE</u>
1. G.E.C. Minerals Inc.	Coal Mine	N	CO-0036692
2. Beartooth Coal Co.	"	N	MT-0025011
3. Westmoreland Resources	"	N	MT-0025127
4. AMCA Coal Leasing	"	N	UT-0023507
5. U.S. Steel-Geneva	"	R	UT-0022926
6. Western States Mineral (J.B. King Coal Mine)	"	N	UT-0023515
7. Carter Mining	"	R	WY-0025755
8. Glenrock Coal Co.	"	N	WY-0028525
9. Provo City Power	Power Plant	R	UT-0022543
10. Utah Power & Light	"	R	WY-0020311
11. Energy Reserves Group	Petro., Nat. Gas	R	UT-0000124
12. Shell Oil Company	"	R	ND-0000272
13. Atlantic Richfield	"	R	WY-0000671
14. Atlantic Richfield	"	R	WY-0020837
15. Banks Operating	"	R	WY-0028592
16. Brinkerhoff Drilling	"	R	WY-0025291
17. Conoco, Inc.	"	N	WY-0028649
18. Husky Oil	"	R	WY-0000353
19. Husky Oil	"	N	WY-0028606
20. Juniper Petroleum	"	R	WY-0028584
21. Marathon Oil	"	R	WY-0001732
22. Marathon Oil	"	N	WY-0001970
23. Morsey Wells Oil & Gas	"	R	WY-0025887
24. Olds Oil Co.	"	N	WY-0028614
25. Leonard D. Pearce	"	N	WY-0028631
26. PBM Oil Co.	"	R	WY-0023485
27. Sohio Petroleum Co.	"	R	WY-0000493

Energy Project Review
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APPENDIX 3 (continued)

Energy NPDES Actions

2nd Quarter 1980

<u>COMPANY</u>	<u>TYPE</u>	<u>RENEWAL (R) NEW APPLICATION (N)</u>	<u>STATE</u>
28. Sohio Petroleum Co.	"	R	WY-0000507
29. Texaco, Inc.	"	R	WY-0002267
30. Texaco, Inc.	"	R	WY-0002364
31. Union Oil Co.	"	R	WY-0001180
32. Allied Mission Oil	Uranium/radium/ vanadium	N	UT-0023442
33. Halliburton Services	Oil & Gas Field Services	N	WY-0028550

NPDES Permits Pending

<u>COMPANY</u>	<u>TYPE</u>	<u>RENEWAL (R) NEW APPLICATION (N)</u>	<u>STATE</u>
1. Anchor Coal Co.	Coal Mine	N	CO-0036323
2. Arness & McGriffin Coal	"	N	CO-0037150
3. Bear Coal Co., Inc.	"	N	CO-0036943
4. C&F Coal Co., Inc.	"	N	CO-0037125
5. Colorado Coal Mining	"	N	CO-0037214
6. Delagua Coal Co.	"	N	CO-0036641
7. Delagua Coal Co.	"	N	CO-0037303
8. Dorchester Colomine Coal	"	R	CO-0036609
9. Dorchester Colomine Coal	"	N	CO-0036960
10. Empire Energy	"	R	CO-0034142
11. Energy Fuels Corp.	"	N	CO-0025584
12. GEX Colorado Inc.	"	N	CO-0035467
13. Henry Bendetti Coal	"	N	CO-0036871
14. Kerr Coal Co.	"	N	CO-0036820
15. Lackey-William & Assoc.	"	N	CO-0037231
16. Louis Bendetti Coal	"	N	CO-0036889
17. Macar Mining Corp.	"	N	CO-0037605
18. Newlin Creek Mine Ltd	"	N	CO-0037141
19. Northern Coal Co.	"	N	CO-0037354
20. Palisade Mining Co.	"	N	CO-0036625
21. Peabody Coal	"	R	CO-0000213

APPENDIX 3 (continued)

Energy NPDES Actions

NPDES Permits Pending

<u>COMPANY</u>	<u>TYPE</u>	<u>RENEWAL (R)</u> <u>NEW APPLICATION (N)</u>	<u>STATE</u>
22. Peabody Coal	"	R	CO-0000221
23. Pittsburgh & Midway Coal	"	N	CO-0032638
24. Quinn Coal	"	R	CO-0035807
25. Snowmass Coal Co.	"	N	CO-0037567
26. Sun Coal Co., Inc.	"	R	CO-0036030
27. Sunland Mining Corp.	"	N	CO-0036668
28. Twin Pines Coal Co.	"	N	CO-0037541
29. U.S. Steel Corp.	"	R	CO-0000132
30. Utah International, Inc.	"	N	CO-0036269
31. Utah International, Inc.	"	N	CO-0036340
32. Utah International, Inc.	"	R	CO-0032115
33. Viking Coal Co.	"	N	CO-0037419
34. Western Slope Carbon	"	R	CO-0033146
35. Coal Creek Mining	"	N	MT-0025101
36. Peabody Coal Co.	"	R	MT-0000884
37. Western Energy Co.	"	N	MT-0023973
38. Consolidated Coal Co.	"	R	ND-0000078
39. C&W Mine No. 1	"	N	UT-0023761
40. Consolidation Coal Co.	"	R	UT-0022616
41. Soldier Creek Coal	"	N	UT-0023701
42. Soldier Creek Coal	"	N	UT-0023680
43. Trail Mountain Coal	"	N	UT-0023728
44. UNC Plateau Mining	"	N	UT-0023736
45. Utah Power & Light Co.	"	R	UT-0022896
46. Chandler & Assoc., Inc. Pet. Nat. Gas	"	N	CO-0037362
47. Chevron Shale Oil.	"	N	CO-0037222
48. Exxon Coal Resources	"	N	CO-0037524
49. Mechalke-Joe D.	"	N	CO-0032140
50. Rio Blanco Oil Shale	"	N	CO-0035637
51. Terra Resources	"	R	CO-0001660
52. Terra Resources	"	R	CO-0001325
53. Petroleum Eng. & Mgt. Corp.	"	R	MT-0024350
54. Soap Creek Assoc., Inc.	"	R	MT-0023183
55. Chinook Resources, Inc.	"	N	SD-0025658
56. Chinook Resources, Inc.	"	N	SD-0025607

APPENDIX 3 (continued)

Energy NPDES Actions

NPDES Permits Pending

<u>COMPANY</u>	<u>TYPE</u>	<u>RENEWAL (R)</u> <u>NEW APPLICATION (N)</u>	<u>STATE</u>
57. Agnew-Sullivan, Inc.	"	N	WY-0028151
58. Amoco Production	"	R	WY-0025437
59. Amoco Production	"	R	WY-0025445
60. Atlantic Richfield	"	R	WY-0025488
61. Continental Oil Co.	"	R	WY-0024236
62. Continental Oil Co.	"	R	WY-0000965
63. Continental Oil Co.	"	R	WY-0001023
64. Diamond B Industries	"	R	WY-0027979
65. Dreiling Ltd	"	R	WY-0027642
66. Elk Oil & Gas	"	R	WY-0028011
67. Energy Reserves	"	R	WY-0025704
68. Gary Operating	"	R	WY-0024546
69. Gary Operating	"	R	WY-0024554
70. Inexco Oil Co.	"	R	WY-0026522
71. National Coop Refinery	"	R	WY-0001643
72. National Coop Refinery	"	R	WY-0001686
73. Olds Oil Company	"	N	WY-0028614
74. Petro-Lewis Corp.	"	R	WY-0024040
75. Powder River Oil Co.	"	N	WY-0028495
76. Terra Resources	"	R	WY-0001091
77. Terra Resources	"	R	WY-0002542
78. Terra Resources	"	R	WY-0002623
79. Texaco, Inc.	"	R	WY-0002437
80. Texaco, Inc.	"	R	WY-0002356
81. Texaco, Inc.	"	R	WY-0002275
82. Texaco, Inc.	"	R	WY-0002241
83. Toco Corp.	"	R	WY-0001406
84. Union Oil Co.	"	R	WY-0001198
85. Union Oil Co.	"	R	WY-0027189
86. Union Oil Co.	"	R	WY-0027162
87. Union Tex Pet	"	R	WY-0020508
88. Dale Weaver, Inc.	"	N	WY-0028339
89. Dale Weaver, Inc.	"	N	WY-0028355
90. Dale Weaver, Inc.	"	N	WY-0028347
91. Cotter Corp.	Uranium	N	CO-0036285
92. Cyprus Mines Corp.	"	N	CO-0036510
93. Energy Fuels Corp.	"	R	CO-0035378
94. Martin-Trost Assoc.	"	R	CO-0037133
95. Union Carbide	"	R	CO-0027588
96. Union Carbide	"	R	CO-0000515
97. Urania Exploration	"	R	CO-0037575

APPENDIX 3 (continued)

Energy NPDES Actions

NPDES Permits Pending

<u>COMPANY</u>	<u>TYPE</u>	<u>RENEWAL (R) NEW APPLICATION (N)</u>	<u>STATE</u>
98. Silver King Mines, Inc.	"	N	SD-0025356
99. Rio Algon Corp.	"	R	UT-0000311
100. Union Carbide Corp.	"	N	UT-0023779
101. Gary Western	Ref., Petro	R	CO-00000078
102. Banks Enterprises	"	R	MT-0020320
103. Conoco, Inc.	"	R	MT-0000256
104. Thunderbird Resources	"	R	MT-0023591
105. Amoco Oil Company	"	R	ND-0000248
106. Phillips Petroleum	"	R	UT-0000507
107. Plateau, Inc.	"	R	UT-0022527
108. Hermes Product, Inc.	"	R	WY-0001163
109. Morgan-Kelly Corp.	Nat. Gas Liq.	N	MT-0024040
110. Rio Blanco Oil Shale	Oil Shale	R	CO-0034045
111. Public Service Co.	Power Plant	R	CO-0001091
112. Public Service Co.	"	R	CO-0001104
113. Public Service Co.	"	R	CO-0001139
114. Mont-Dak Utilities	"	R	ND-0000264
115. United Power Assoc.	"	R	ND-0000299
116. Deseret Gener. & Trans	"	N	UT-0023744
117. Atlantic Richfield	Pet., Nat. Gas	R	MT-0000337

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APPENDIX 4

Energy 404 Actions - 1st Quarter, 2nd Quarter and Pending

<u>Project</u>	<u>Type</u>	<u>State</u>	
<u>1st Quarter 1980</u>			
1. Shell Oil Co.	Submerged pipeline	MT	
2. Montana Dakota Utilities	Erosion control	MT	
<u>2nd Quarter 1980</u>			
1. Northern Tier Pipeline Co.	Pipeline	MT	
2. Minnkota Power Coop	Transmission	ND	
3. Northern Tier Pipeline Co.	Pipeline	ND	
4. Basin Electric Power Coop	Fill/riprap	ND	
5. Empire Energy Corp.	Mine	CO	
<u>Pending</u>			
<u>Project</u>	<u>Type</u>	<u>Estimated Decision Date</u>	<u>State</u>
1. Kerr Coal Co.	Mine	7/23/80	CO

GLOSSARY

BEJ	best engineering judgment -- a determination of the best hazardous waste disposal
BPDOE	barrels per day, oil equivalent -- a measure of production for synthetic fuels expressed in terms of petroleum
BPSD	barrels per stream day -- a measure of the daily production of oil from a particular facility
BPT	best practical treatment -- a determination of the best wastewater pollution control technology which is reasonably applied to an existing facility
Delegated	delegated, non-delegated -- most EPA programs are designed to be managed by the States. States which request delegation and which have the needed authorities to run a program "equivalent" to the Federal program may receive delegation.
DOI	Department of the Interior
EIS	environmental impact statement review -- National Environmental Policy Act requires Federal agencies to evaluate impact of their actions on the environment, sometimes requiring preparation of a full-blown EIS which is then reviewed in draft form by Federal, State and local agencies with appropriate expertise. Comments of reviewing agencies must be addressed in final EIS. dEIS -- draft fEIS -- final Pre-EIS scoping -- meeting or communications among agencies, project sponsors and others before a draft EIS is prepared. Aim is to "red-flag" potential trouble areas in EIS to avoid prolonged conflicts among agencies and others over particulars in an impact statement. Programmatic EIS -- covers a nationwide program; is not site- or project-specific

Energy Project Review
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Induced Synfuels Industry	an industry consisting of plants which produce oil and gas from coal and/or oil shale. The industry receives economic subsidies.
MWe	megawatts, electricity -- a measure of the power generation capacity of power plants
NOx	nitrogen oxides -- a criteria pollutant subject to National standards. Power production and heating account for approximately 56 percent of NOx emissions nationally. Measures as NO ₂ in ambient air . . . as Nox in stack emissions.
NPDES permits	permits to discharge wastewater into the waters of the U.S., regulated under the National Pollutant Discharge Elimination System of the Clean Water Act. System limits amount of various pollutants which can be discharged, carries monitoring requirements and penalties for violations.
Population-induced power plants	power plants which are constructed to supply electricity to the people who move to an area either to work at a synthetic fuel facility or to provide community services
Population-induced sewage treatment plants	sewage treatment plants which are constructed to treat the wastewater for the people who move to an area to either work at synthetic fuel facilities or to provide community services.
PSD review	pre-construction review of new sources seeking to locate in areas where air is already cleaner than required by National standards. Pollution limits (increments) are far more stringent than National standards since they are designed to "prevent significant deterioration" of air quality. Class I is the most restrictive, Class III the least. All classes are more protective of air quality than the secondary National Standards.
SCFD	standard cubic feet per day -- a measure of gases
SO ₂	sulfur dioxide -- a criteria pollutant subject to national standards and PSD review. Power production and heating account for approximately 80 percent of SO ₂ emissions nationally.

TPD	tons per day -- common measure of mining production
TPY	tons per year -- common measure of mining production
U-RA-V	Uranium-radium-vanadium -- in this report, term indicates mine which may produce any of these closely associated elements.
USBOR	United States Bureau of Reclamation, now called the U.S. Water and Power Resource Service
USCOE	United States Army Corps of Engineers. In addition to project construction responsibilities, shares enforcement of Clean Water Act section 404 with EPA.
404	Section of the Clean Water Act -- regulates dredging of waterways and disposal of dredge materials. Also regulates placement of fill material on or near waterways. Permits are issued by Corps of Engineers with EPA review.