



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

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5802

MEMORANDUM

TO: CHAUNDA ZIMMERMAN, Speech Writer
Governor's Office

FROM: BILL LEMAY, Director *WJL*
Oil Conservation Division

SUBJECT: GOVERNOR'S SPEECH FOR WASHINGTON TRIP

DATE: AUGUST 31, 1989

Enclosed are some remarks (speech) for the Governor's use on his trip to Washington as per our telephone conversation this week.

cc: A. Lockwood

REMARKS TO BE MADE TO THE TECHNICAL COMMITTEE
ON THE I.O.C.C. COUNCIL ON REGULATORY NEEDS
BY GOVERNOR GARREY CARRUTHERS
(WASHINGTON, D.C.)
1:00 PM, FAIRVIEW PARK
MARRIOTT IN FALLS CHURCH, VA, 703/849-9400

WELCOME TO WASHINGTON, D.C. WHICH IS MY OLD STUMPING GROUNDS. IN THE EARLY DAYS OF THE REAGAN ADMINISTRATION I SERVED UNDER SECRETARY JIM WATT AT THE INTERIOR DEPARTMENT. AS YOU KNOW, GOVERNOR SINNER AND MYSELF ARE CO-CHAIRING THE I.O.C.C. COUNCIL ON REGULATORY NEEDS AND ALTHOUGH MY COMMITTEE IS THE ADMINISTRATIVE COMMITTEE AND GOVERNOR SINNER HEADS THIS TECHNICAL COMMITTEE, I WANT TO TAKE A FEW MOMENTS OF YOUR TIME TO TELL YOU HOW IMPORTANT I BELIEVE THIS EFFORT IS. REGULATION OF SOLID WASTE IN THE OIL PATCH SHOULD BE UNDER THE JURISDICTION OF THE INDIVIDUAL STATES AND NOT THE FEDERAL GOVERNMENT. THERE ARE ELEMENTS IN OUR SOCIETY THAT WOULD LIKE TO PREEMPT STATE AUTHORITY WITH FEDERAL CONTROLS. THEY DO THIS BY DISCREDITING STATE PROGRAMS AND CONSOLIDATING REGULATORY AUTHORITY IN WASHINGTON. SO IT IS A CONSTANT BATTLE FOR US TO PROVE TIME AFTER TIME THAT THE STATES CAN DO AND ARE DOING THE JOB. IT IS IMPORTANT THAT ANY REGULATORY GAPS THAT EXIST IN SOLID WASTE DISPOSAL PROGRAMS WITHIN THE STATE BE ADDRESSED AND THAT WORKABLE RULES AND REGULATIONS BE PUT INTO PLACE TO COVER THESE GAPS. IT IS TOWARDS THIS END THAT YOU ALL ARE WORKING AND BELIEVE ME YOUR DOING A GREAT JOB. ONCE YOUR COMMITTEE AGREES ON THE TECHNICAL CRITERIA TO BE APPLIED TO E AND P WASTE THEN IT WILL BE MY COMMITTEE, HEADED BY PAT BACHELOR OF LOUISIANA WHICH WILL UTILIZE THESE CRITERIA IN ADDRESSING ADMINISTRATIVE GAPS IN STATE REGULATORY PROGRAMS. WE

MUST HAVE MADE SOME PROGRESS IN STATUTORY AUTHORITY BECAUSE I UNDERSTAND THAT THE EPA HAS REQUESTED OUR INPUT ON THE ALASKAN REPORT WHICH THEY HAVE RECENTLY DRAFTED. ALSO, I UNDERSTAND THAT QUESTIONNAIRE HAVE BEEN SENT TO VARIOUS STATE AGENCIES AND THAT WE ARE CURRENTLY AWAITING THE RESULTS OF THESE QUESTIONNAIRES. I THINK WE ARE RIGHT ON TARGET. WE PLAN TO HAVE OUR FIRST WRITTEN REPORT FROM THE ADMINISTRATIVE COMMITTEE SUBMITTED TO THE FULL COMMITTEE IN EARLY DECEMBER PRIOR TO THE I.O.C.C. MEETING IN TULSA. WITH 29 MEMBER STATES, IT WILL BE VERY DIFFICULT TO COME UP WITH MINIMUM CRITERIA FOR SOLID WASTE DISPOSAL ACCEPTABLE TO ALL STATES AND YET ADDRESS ALL THE UNIQUE PROBLEMS OF THESE STATES. OUR JOB IS NOT EASY, BUT IMPORTANT EFFORTS SUCH AS THIS NEVER ARE. BILL LEMAY HAS KEPT ME INFORMED ON THE PROGRESS THAT YOU ALL ARE MAKING AND I BELIEVE WE ARE ON TARGET WITH OUR PROJECTED SEPTEMBER 1990 COMPLETION DATE. AGAIN, I WANT TO PERSONALLY THANK EACH OF YOU FOR THE TREMENDOUS EFFORT THAT YOU HAVE MADE AND THE RESULTS YOU HAVE OBTAINED TO DATE. I PLEDGE THE COOPERATION OF MY OFFICE AND MYSELF TO THIS EFFORT AND LOOK FORWARD TO WORKING WITH YOU OVER THE COMING YEAR.

SUMMARY TIMETABLE FOR
I.O.C.C. COUNCIL ON REGULATORY NEEDS

February 2-3, 1989: Organizational Meeting in Denver, Colorado
Committee formed, project defined

June 17, 1989: Meeting of the full committee in Reno, Nevada -
Preliminary committee reports submitted and
discussed -- agenda finalized

July 12-13, 1989: Governor Sinner and Technical Chairman Bill
Bryson visited sites on the North Slope of
Alaska for input and comment on EPA report

August 3-4, 1989: Wyoming field trip to observe different field
operations

September 20, 1989: Technical Committee meeting in Falls Church,
Virginia to finalize technical criteria

December 2, 1989: Full Committee meets in Tulsa, Oklahoma to
discuss Committee reports

1990 - No firm dates but completion scheduled for September 1990.

INTERSTATE OIL COMPACT COMMISSION

HEADQUARTERS OFFICE: 900 N. E. 23RD STREET • P.O. BOX 53127 • OKLAHOMA CITY, OKLAHOMA 73152-3127
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STEVE COWPER
Chairman
Governor of Alaska

W. TIMOTHY DOWD
Executive Director

Address Reply to Headquarters Office

Contact: W. Timothy Dowd
(405) 525-3556

Background

IOCC STUDY OF PRODUCTION WASTES LAUNCHED

FOR IMMEDIATE RELEASE

Denver, Colorado, December 16, 1988--The Interstate Oil Compact Commission (IOCC) will begin its examination of state oil and gas regulations as they relate to exploration and production wastes. The first public meeting will be held on Friday, January 27th in Denver.

Dr. J. Winston Porter, assistant administrator, Office of Solid Waste & Emergency Response, U.S. Environmental Protection Agency, who requested IOCC assistance, announced that EPA would provide a grant to assist in funding this effort.

The inquiry will be co-chaired by Gov. George A. Sinner of North Dakota and Gov. Garrey Carruthers of New Mexico. In addition, twelve other individuals from state agencies with supervision over the environment and oil and gas production will serve on the coordinating committee. Members named today were Stan Hungerford, Alaska; M.G. Mefferd, California; W.R. Bryson, Kansas; Don R. Basko, Wyoming; J. Patrick Batchelor, Louisiana; and Jerry Mullican, Texas. Gov. Sinner said six others will be named within a few days. The IOCC is a multi-state government agency serving the governors of 29 oil and gas producing states. Among other activities, it counsels the states on the sufficiency of state oil and gas regulations.

MEMBER STATES: ALABAMA • ALABAMA • ARIZONA • ARKANSAS • CALIFORNIA • COLORADO • ILLINOIS • INDIANA • KANSAS • KENTUCKY
LOUISIANA • MARYLAND • MICHIGAN • MISSISSIPPI • MONTANA • NEBRASKA • NEVADA • NEW MEXICO • NEW YORK • NORTH DAKOTA • OHIO
OKLAHOMA • PENNSYLVANIA • SOUTH CAROLINA • TEXAS • UTAH • VIRGINIA • WEST VIRGINIA • WYOMING
ASSOCIATES: GEORGIA • IDAHO • NORTH CAROLINA • OREGON • SOUTH CAROLINA • WASHINGTON

News Release
Page 2
December 16, 1988

Earlier this year, EPA reported to Congress on the status of drilling and production wastes in the petroleum industry and found, insofar as the states are concerned, that some regulatory gaps exist. Dr. Porter said the IOCC project is designed to identify these gaps and help the states correct them.

The IOCC will solicit the views of all interested parties, including various elements of the petroleum industry, environmental interests, and members of the legislative branch of both the state and federal governments. Gov. Sinner and Dr. Porter said they were anxious to make certain that the views of all of the interests are heard.

More than 99 percent of the oil and gas produced onshore in the United States is produced within the borders of and regulated by member states of the IOCC. IOCC has at various times evaluated total regulatory programs in specific states, developed model statutes, and assisted in the training of state and federal personnel involved in environmental regulation. In recent years, with the creation of the Environmental Affairs Committee, the IOCC has become increasingly involved in the environmental concerns related to oil and gas production. The committee's projects and studies have included the evolution of the Underground Injection Control Program as well as the study on exploration and production wastes.

The IOCC receives no funds from the petroleum industry. The bulk of its funds come from the states, and the voting members of the Executive Committee are the governors of the member states.

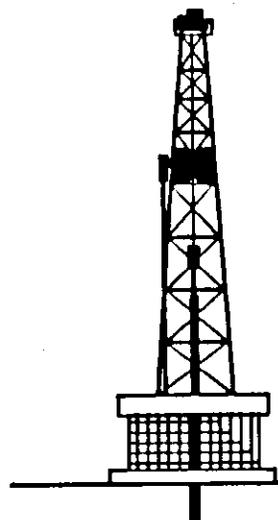
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**Interstate Oil Compact Commission
Council on Regulatory Needs**

***“An Integrated State-Federal Approach
to Environmental Regulation
of U.S. Oil and Gas
Exploration and Production Operations”***

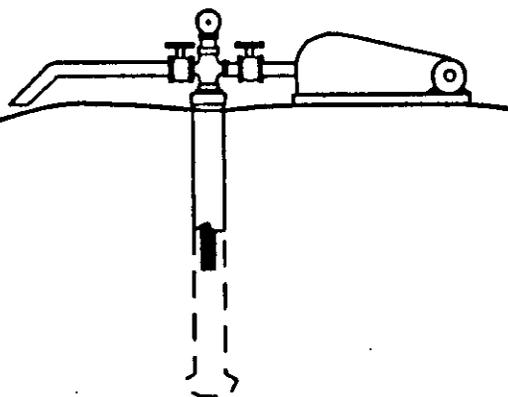
September 1989

Exploration and Production Operations Waste Volumes



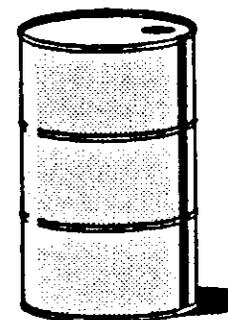
Drilling Wastes

**361.4 million barrels
in 1985**



Produced Water

**20.9 billion barrels
in 1985**



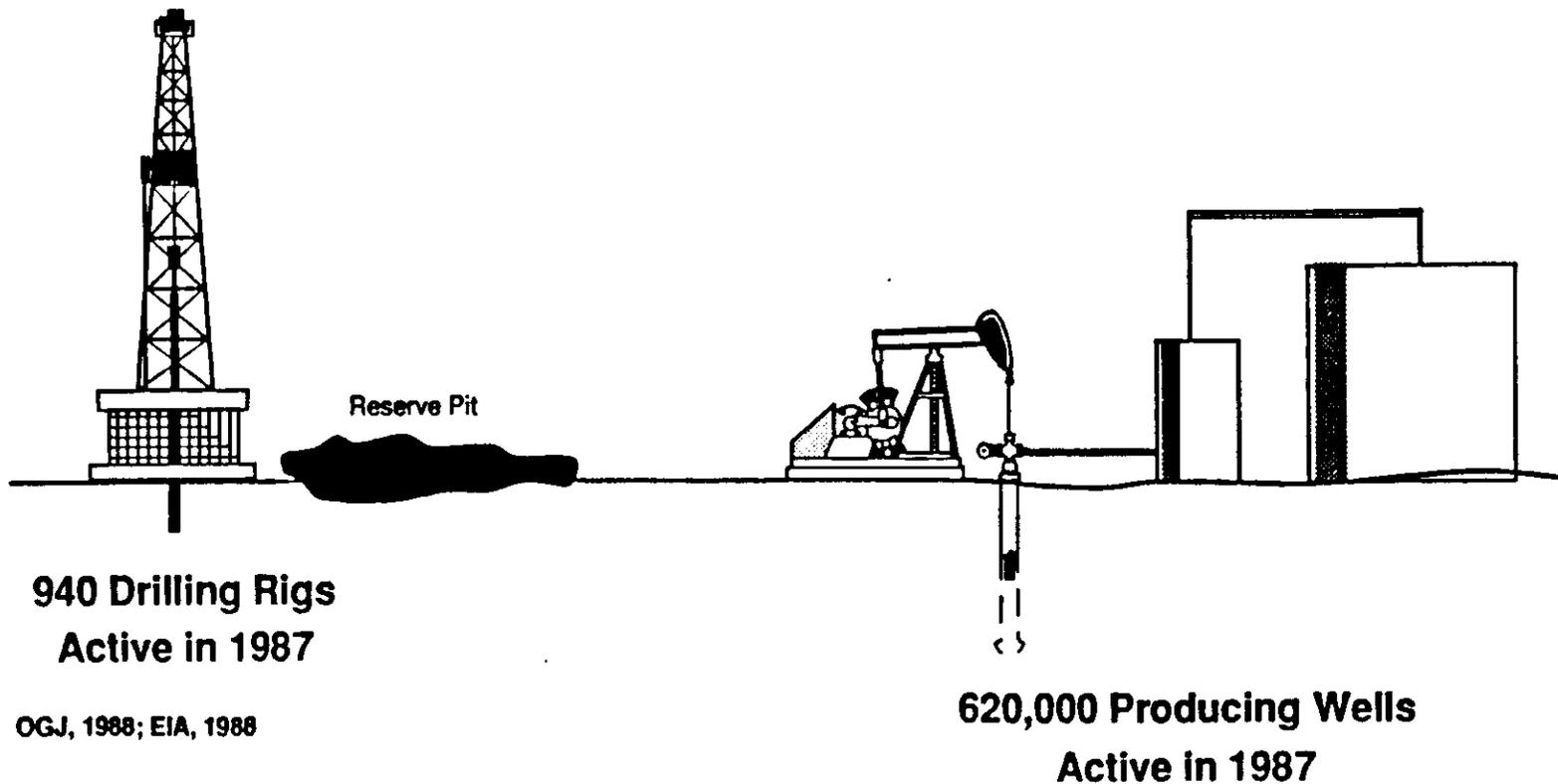
Associated Wastes

**11.6 million barrels*
in 1985**

API, 1987

* Extrapolated from a 51% sample of total crude oil production

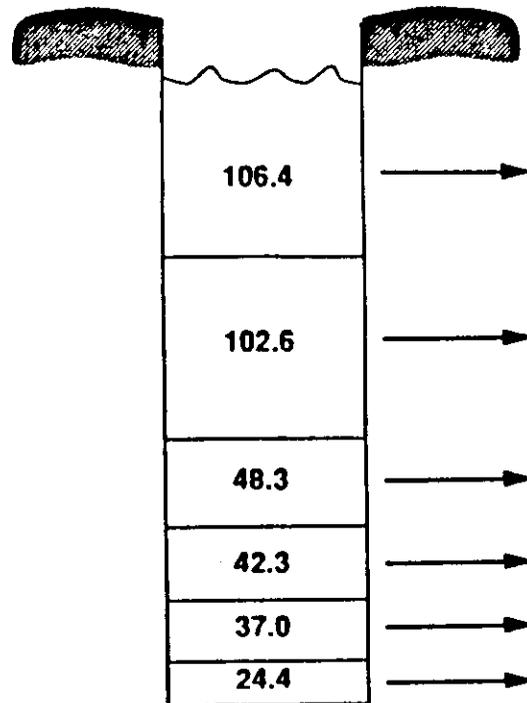
Wastes are Generated at a Vast Number of Drilling and Production Sites



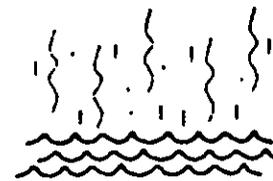
OGJ, 1988; EIA, 1988

A Wide Variety of Waste Management Practices are Used

Reserve Pit Contents



Disposal Practice



Evaporation



Hauled Offsite



Injection



Burial



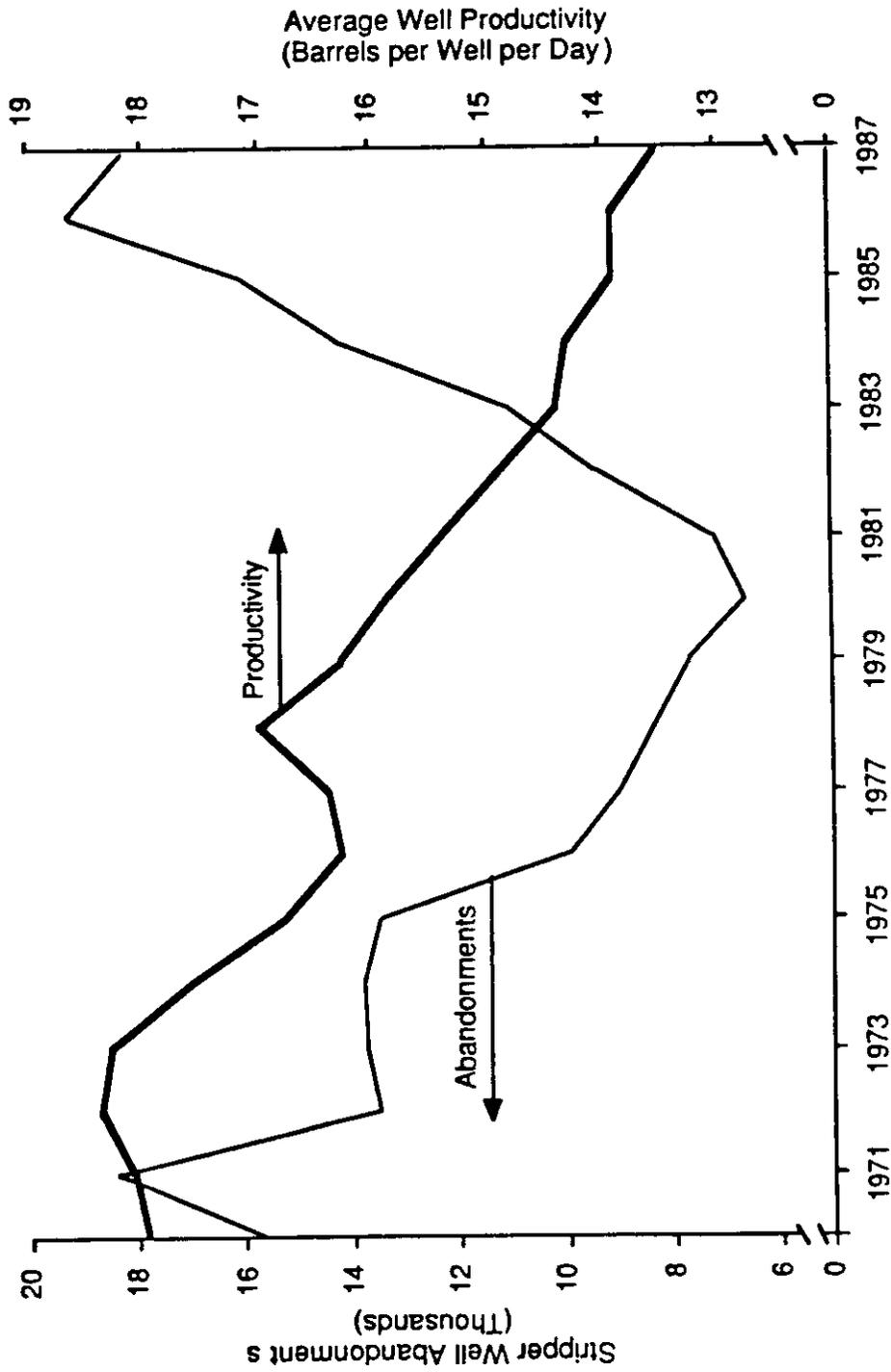
Surface Discharge



Landsread

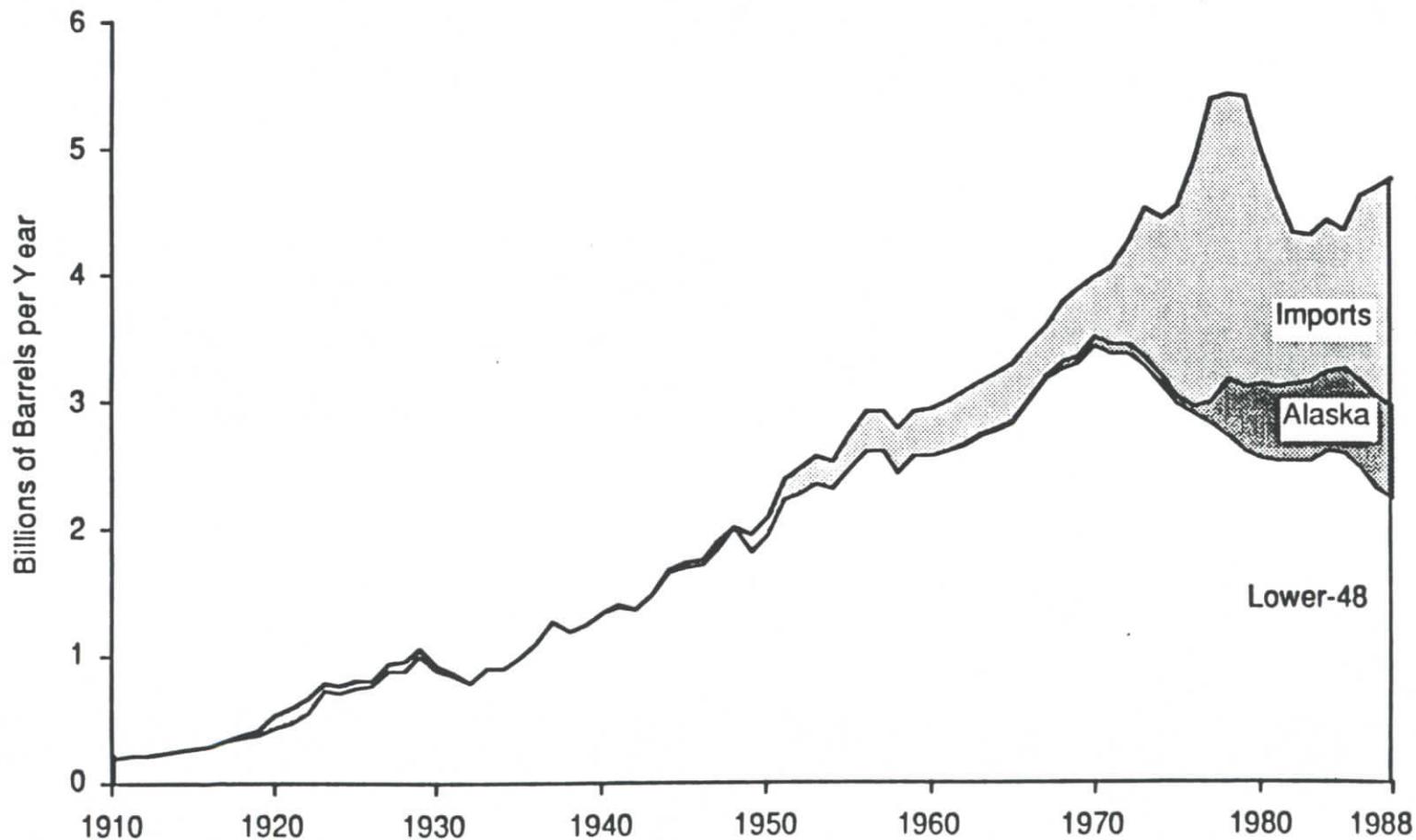
Total US
Estimated = 361 million barrels in 1985
Volume

**Producers Have Become Very Cost-Sensitive, While
the U.S. Resource Has Become Less Productive**



Source: API, 1989

Further Decline in the U.S. Resource is Costly for the U.S. Economy



Source: OGJ Database, 1989

Waste Management Practices of the Industry Have Been Studied Carefully

- **1980 Amendments to RCRA exempted certain E&P wastes from regulation as hazardous waste under Subtitle C.**
- **At request of Congress, EPA reviewed exemption and reported its findings to Congress in December 1987.**

EPA's Report to Congress Supported Existing Regulations

- **Exemption of E&P waste from RCRA Subtitle C is appropriate.**
- **Existing state and federal regulations are generally adequate.**
- **Certain regulatory gaps do exist.**
- **Enforcement of existing regulations in some states is inadequate.**

**EPA Gave Six Reasons for Exempting E&P Wastes
from Subtitle C Regulation**

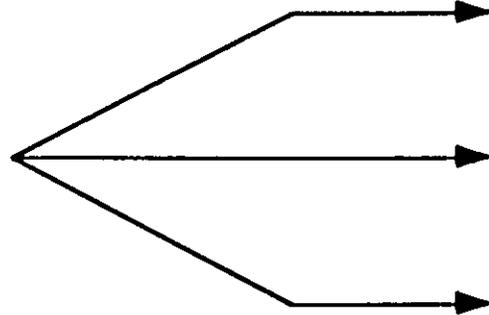
- **Need to consider costs and avoid serious economic impacts.**
- **Adequacy of existing federal and state programs.**
- **Inhibiting effect on oil and gas exploration.**

**EPA Gave Six Reasons for Exempting E&P Wastes
from Subtitle C Regulation (continued)**

- **Strain on existing Subtitle C facility capacity.**
- **Disruption and duplication of existing state programs.**
- **Severe permitting burden for regulatory agencies.**

EPA Proposed a Three-Pronged Approach for Addressing Inadequacies in Existing Programs

**EPA's Approach
to Address
Gaps**



**Improve federal
programs**

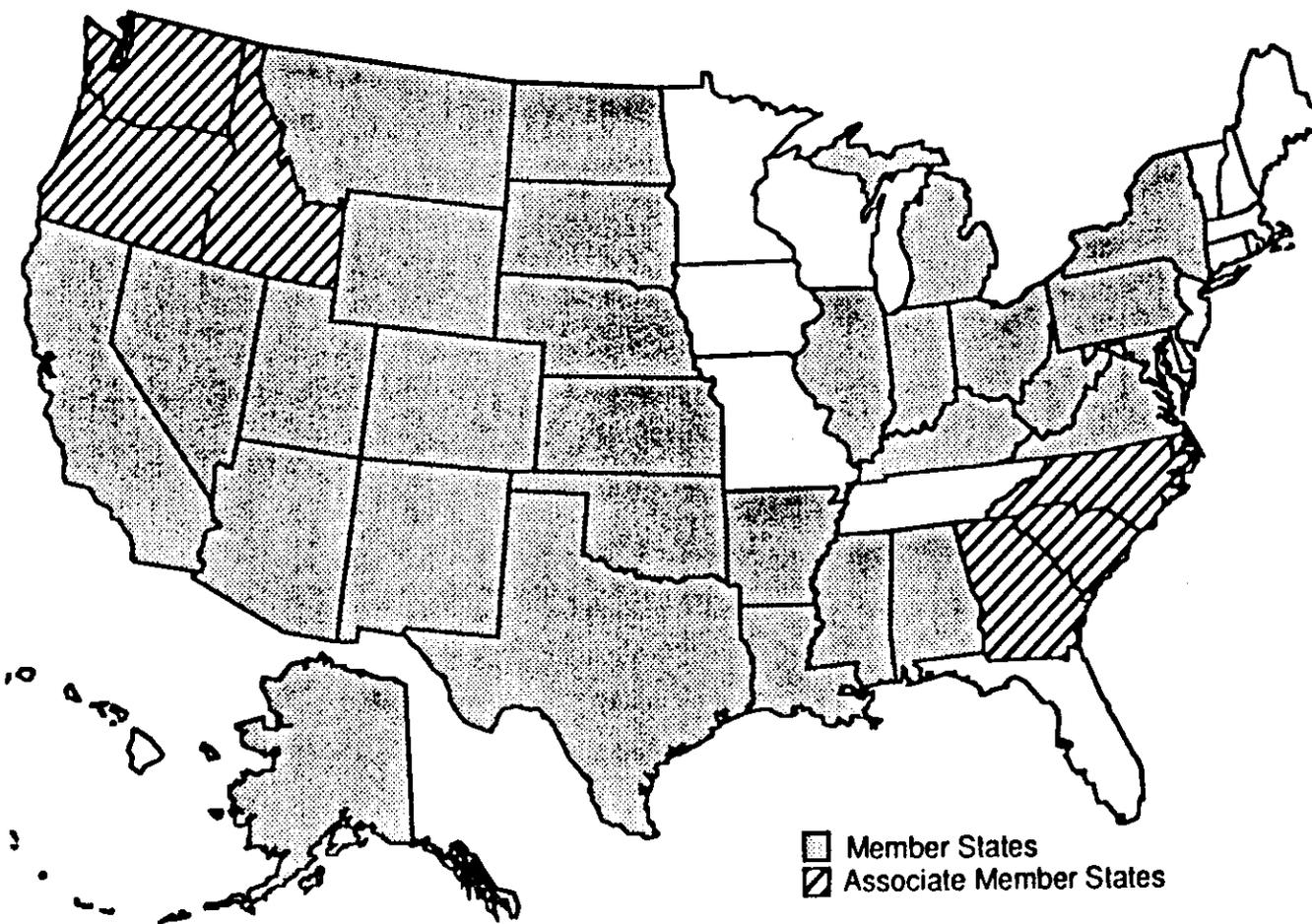
Work with states

**Develop statutory
authorities**

EPA Resolved to Work with the States

- **Improve content, implementation, and enforcement of existing state regulations.**
- **Promote a cooperative effort through the Interstate Oil Compact Commission (IOCC).**

Membership of the IOCC



IOCC Has Been Active in Assisting States with Environmental Regulations

- **Evaluated regulatory programs in specific states.**
- **Developed model statutes.**
- **Assisted states with the Underground Injection Control (UIC) Program.**
- **Contributed to EPA's evaluation of oil and gas E&P wastes.**

IOCC Formed Council on Regulatory Needs to Assist States and EPA

- **Review state regulations and industry practices regarding E&P waste management.**
- **Propose guidelines for state regulation of E&P wastes.**

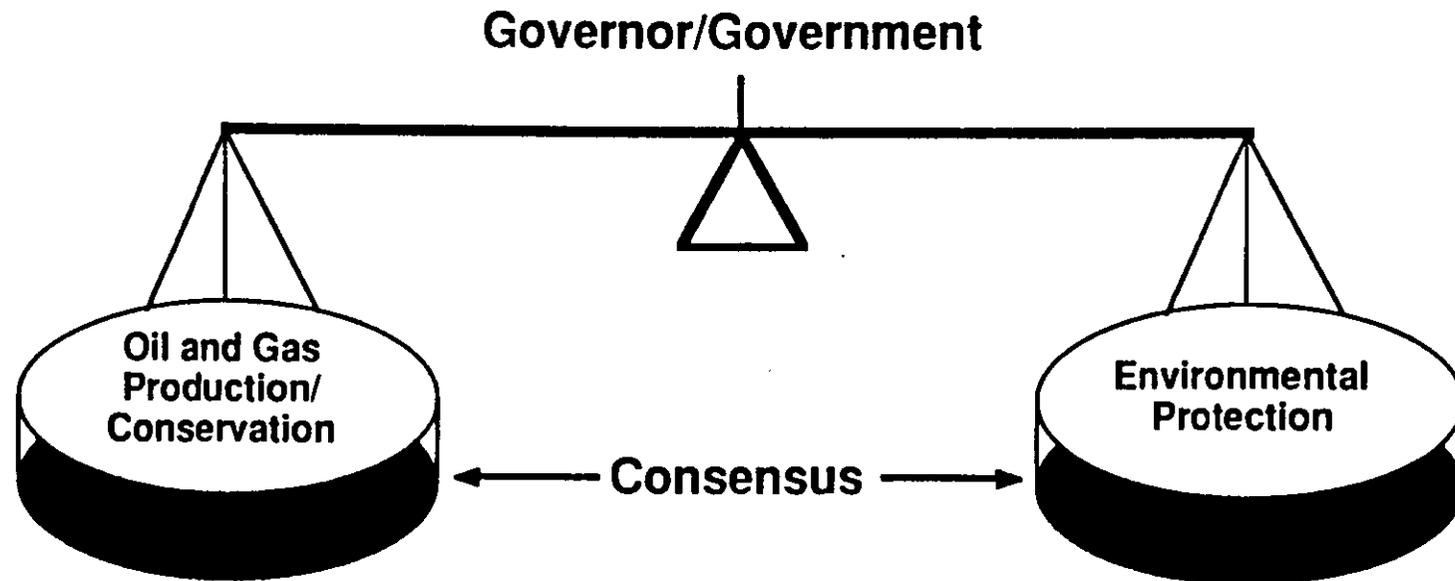
Membership of the Council on Regulatory Needs is Diverse

- **Consists of representatives of a wide range of interests:**
 - **Industry.**
 - **Environmental groups.**
 - **State environmental protection agencies.**
 - **State oil and gas agencies.**
 - **Federal agencies.**

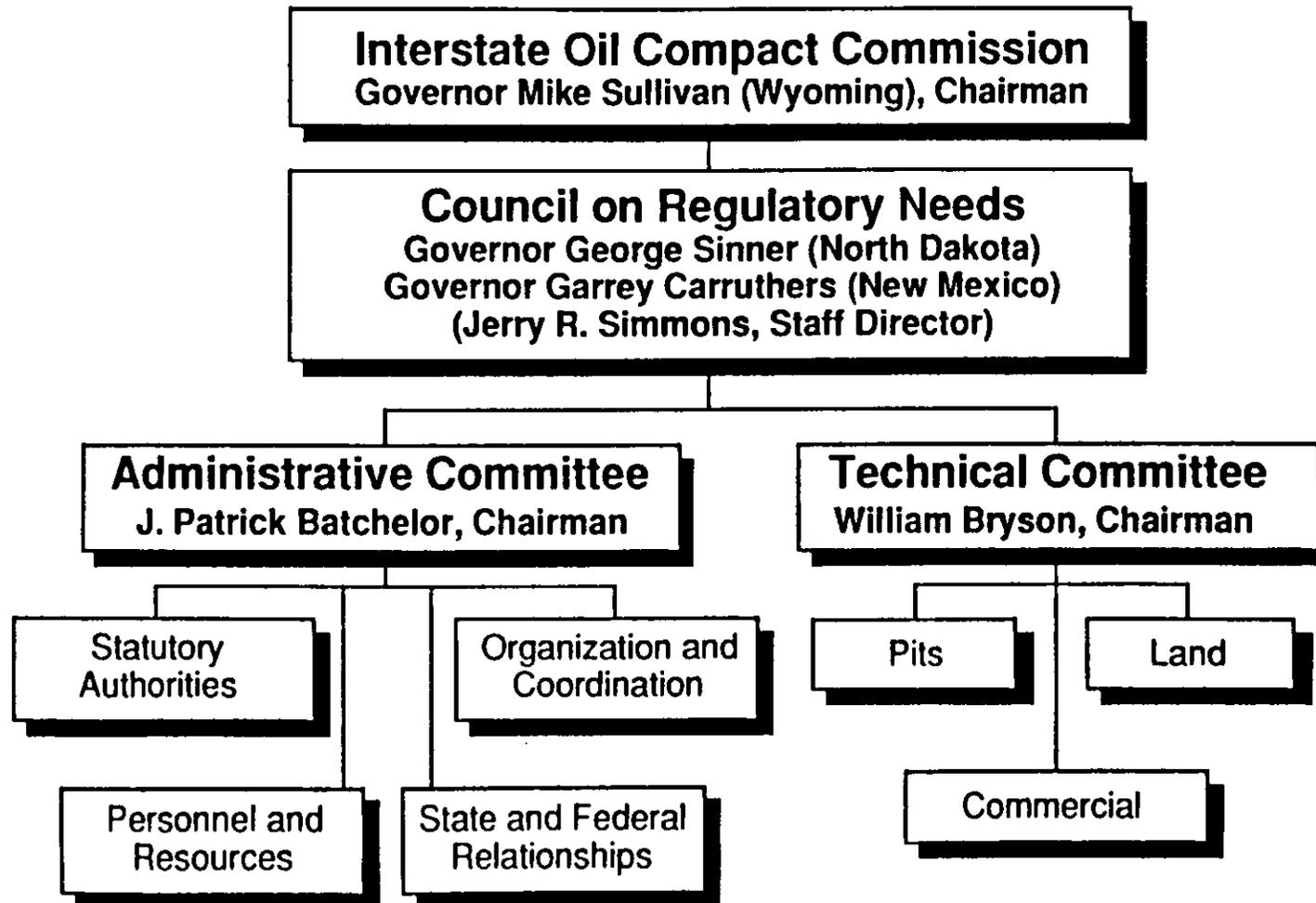
Purpose and Objectives of the Council

- **Provide a forum to discuss state regulatory issues regarding E&P wastes.**
- **Recommend risk-based criteria for cost-effective regulation of E&P wastes.**

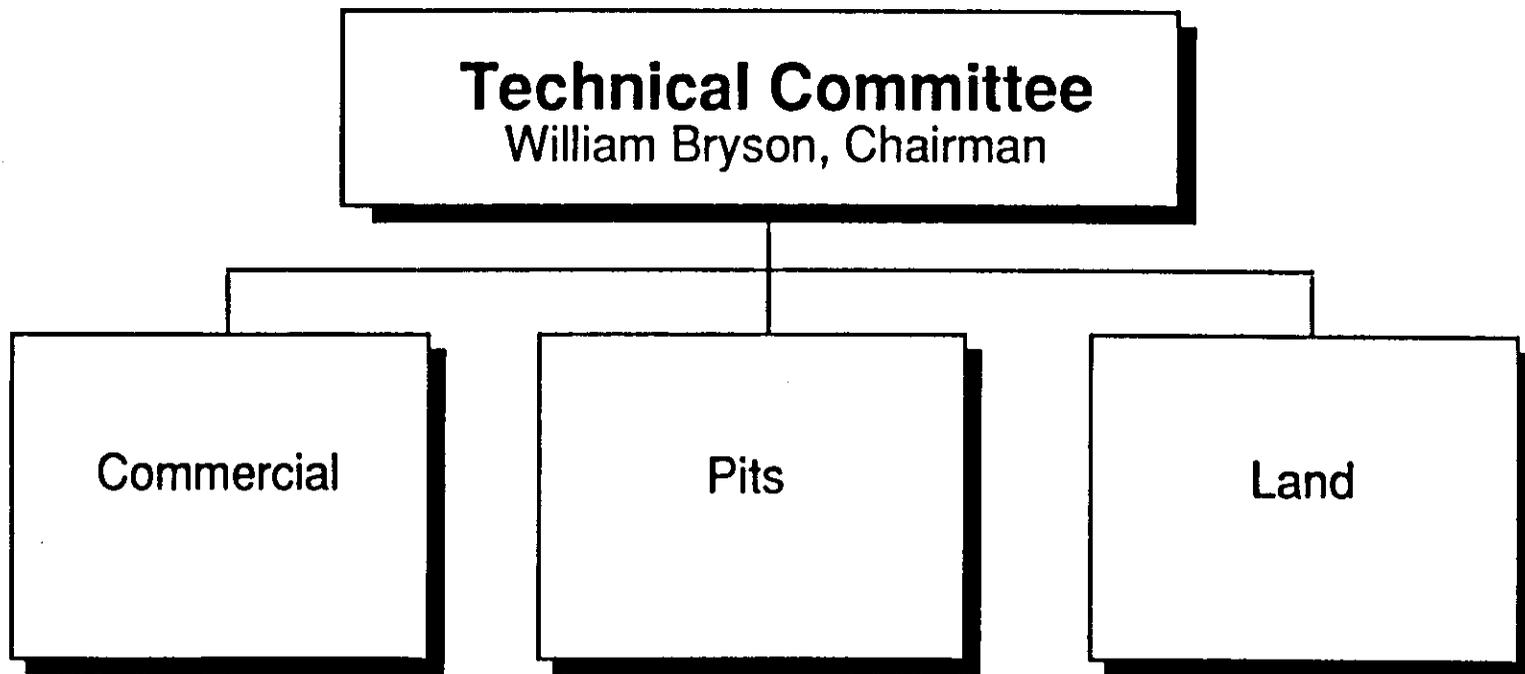
The States' Objectives Require a Balance



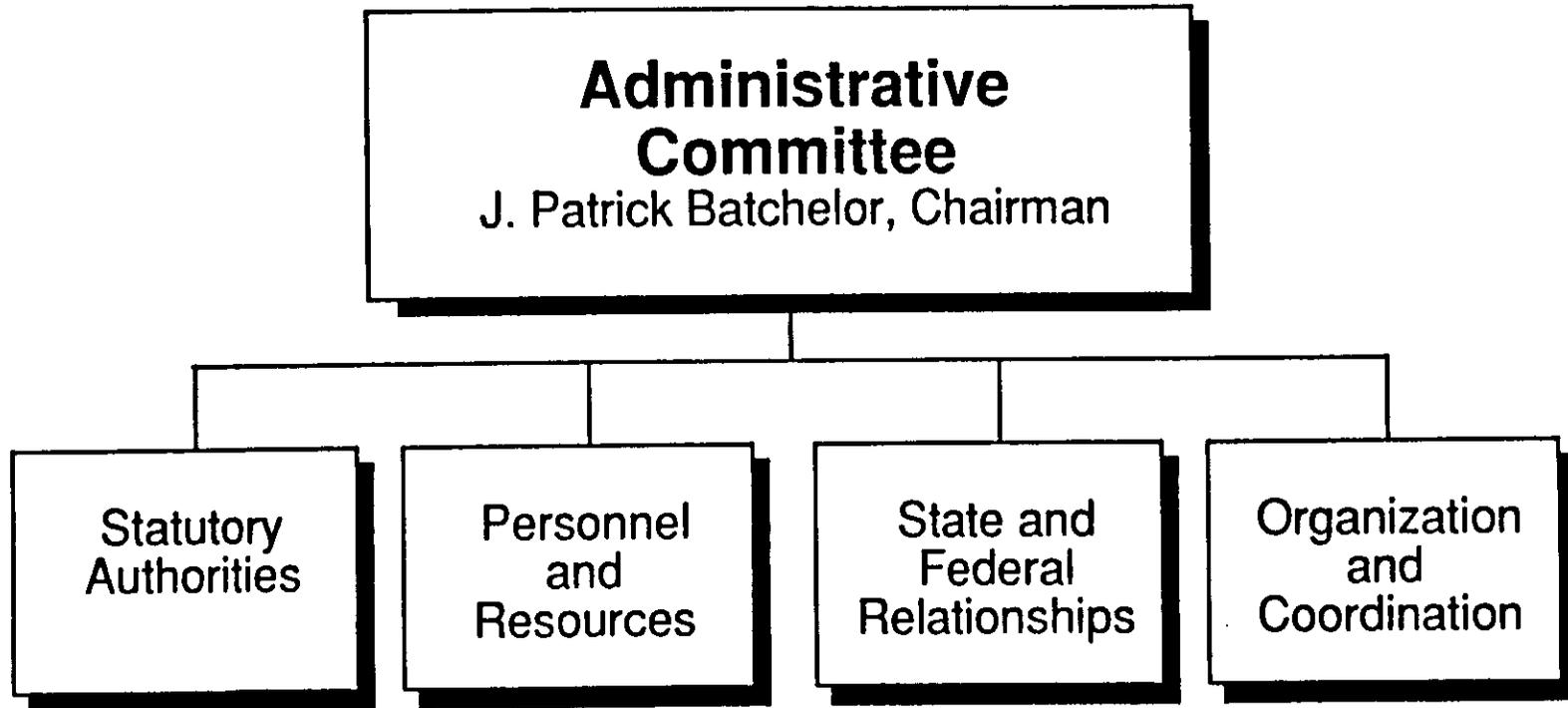
Organization of Council



Technical Committee Organized into Three Subcommittees



Administrative Committee Organized into
Four Subcommittees



Council Activities to Date

- **Organizational Meeting - February 1989, Denver, Colorado.**
 - **Established committee/subcommittee structure.**
 - **Assigned initial subcommittee tasks.**
 - **Develop draft of initial criteria.**
 - **Prepare report for discussion.**
 - **Distribute reports for comments.**

Council Activities to Date (continued)

- **Council Meeting - June 1989, Reno, Nevada**
 - **Initial criteria presented by technical subcommittees.**
 - **Full council discussion of criteria and comments.**
 - **Heard presentation of proposed management plan.**
 - **Established date for field trip.**
 - **Introduced EPA Alaska North Slope Report for Council review.**

Council Activities to Date (continued)

- **Field trip to observe current oil and gas operations and waste management practices - August 1989, Wyoming.**
 - **Drilling operations.**
 - **Production facilities.**
 - **Gas processing facilities.**

Council Progress to Date

Technical Committee

- **Subcommittees proposed initial criteria for comment.**
- **Comments received and criteria revised.**
- **Scheduled meeting in September to finalize recommended criteria.**
- **Circulate technical criteria to administrative subcommittees.**

Council Progress to Date (continued)

Administrative Committee

- **Subcommittees have assigned individual responsibilities.**
- **Begun to draft proposed recommended criteria.**
- **Circulated questionnaire to states to gather information on administrative issues.**

Future Council Activities

Technical Committee

- **Meeting in September to finalize recommended criteria.**
- **Identify and address technical issues not considered at this stage.**
- **Draft final technical subcommittee reports.**
- **Present final recommended criteria to full Council at December meeting.**
- **Merge recommended technical criteria with administrative criteria for final report.**

Future Council Activities (continued)

Administrative Committee

- **Compile information from state questionnaires.**
- **Draft administrative subcommittee reports.**
- **Present draft recommended criteria to full Council at December meeting.**
- **Identify and address administrative issues not considered at this stage.**
- **Merge recommended administrative criteria with technical criteria for final report.**

Final Requirements Under EPA Grant

- **Establish recommended criteria and guidelines.**
- **Use criteria to identify and evaluate gaps in regulation.**
- **Identify potential improvements.**
- **Report on Council's findings (due December 1990).**

Other Future Work of the Council

- **Continue to represent states' concerns regarding regulatory issues.**
- **Maintain forum to monitor environmental initiatives affecting domestic E&P operations.**
- **Continue to work with Congress and the federal government.**

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TELEPHONE: (405) 825-3556

Address Reply to Headquarters Office



STEVE COWPER
Chairman
Governor of Alaska

MEMORANDUM

W. TIMOTHY DOWD
Executive Director

June 29, 1989

TO: Governor George A. Sinner
Governor Garrey Carruthers

FROM: Jerry R. Simmons *JRS*

SUBJECT: Report to Co-Chairs of IOCC Council on Regulatory Needs
Reno, Nevada Meeting

Attached you will find minutes from the Council on Regulatory Needs Reno, Nevada meeting.

As you can see the Technical Committees criteria has been submitted and all comments are due by July 17. The Technical Subcommittees will produce a final draft of their criteria by August 5.

Administrative Subcommittees are continuing to gather information and will have reports ready for the next Council meeting in December. Please note this next meeting date is set for Saturday, December 2 in Tulsa, Oklahoma just prior to the IOCC Annual Meeting.

The Council will also be taking a field trip to S.W. Wyoming on August 3 and 4. We will observe field operations and discuss these activities so we know that all involved have some common ground. I am sure Council members would be very pleased if either or both of you would be able to attend (field trip letter attached).

As outlined in the minutes, the Council is also preparing a response to the EPA Alaska North Slope Report. In the report, the EPA specifically asked the Council to address certain issues. We should have this completed and submitted to EPA by late-July.

Thank you for your interest and support. If I can answer any questions, please advise.

JRS:bjh

Attachment

MINUTES OF THE IOCC
COUNCIL ON REGULATORY NEEDS

Nugget Hotel
Reno, Nevada
June 17, 1989

Present at the meeting were:

Jerry Mullican	Jim Erb
Randy Bruton	Phil Hocker
Michel Paque	Gene Christianson
M.G. Mefferd	H.W. Yates
Bill Freeman for Joel Robbins	Tom Edmondson
Jeff Mach	David Flannery
William R. Smith	Ed Hamrick
Charles Perry	Terri Lorenzon
Donald Basko	David Bussard
Wesley D. Norton for Gov. Sinner	Chris Shuey
William J. LeMay for Gov. Carruthers	Kristine Benson
W. Timothy Dowd	Nancy Johnson
Jerry R. Simmons	Bill Hochheiser
William R. Bryson	Mike Fitzpatrick
J. Patrick Batchelor	Jack Davidson
	Tim Sampson for Jim Collins
	Thomas Kennan

Mr. W. Timothy Dowd called the meeting to order and welcomed Council members. Mr. Dowd introduced William LeMay and Wesley Norton as presiding over the meeting on behalf of Governors Carruthers and Sinner.

The first item before the Council was to choose a time and place for a field trip (pursuant to the IOCC grant application). Council members were informed of an invitation by Governor Mike Sullivan of Wyoming to conduct the field trip in his state. The Council accepted the invitation from Wyoming and cast ballots to decide on a date. Of five possible dates to choose from, August 3 and 4, 1989 received the most votes. The Council members able to attend the field trip will spend both days observing all types of field operations and meet in the evenings for informal discussions of the days events. As not all Council members will attend, a report will be made to the full Council by IOCC staff.

The next agenda item was a report by the Administrative and Technical Committees on their progress. Mr. Bill Bryson, Technical Committee Chairman, commented on the efforts of the Technical Subcommittees to present the Council with their recommended minimum criteria. Mr. Bryson then asked the sub-committee chairmen to

present a brief report. Don Basko reported that the Pits Subcommittee report on Reserve, Production, and Special Purpose Pits and their Permitting, Siting, Construction, Operation, and Closure had been submitted to the Council for comment and the committee felt they had addressed most concerns on pits.

Reporting for Jim Collins on the Commercial Subcommittee was Chris Shuey. Mr. Shuey reported that the Commercial Subcommittee had addressed Permitting, Inspection, Haulers, Waste Tracking Systems, and had submitted this report to the Council. However, Mr. Shuey noted that he had made considerable comment to the first report and that these comments were not incorporated in the presentation to the Council.

Mr. Tom Edmondson presented the report on the Land subcommittee criteria. Mr. Edmondson stated that the Land Committee addressed Landspreading, Burial/Landfill, Pit Closure, Roadspreading and NPDES discharges in the criteria submitted to the Council.

Mr. Bryson recommended the reports continue and discussion would take place later in the day. Mr. Bryson reported that the comments received on the technical criteria were not all of a technical nature, that the comments ranged from differences in nomenclature to questions of level of control (state, Federal, local), and included management practices.

Mr. J. Patrick Batchelor, Administrative Committee Chairman was then asked for an update on Administrative Committee activity. Mr. Batchelor reviewed the fact that the Administrative Subcommittees were not asked to produce any written report at this meeting, but would do so at the December 1989 meeting. Mr. Batchelor then asked for a progress report from the Administrative Subcommittee chairmen. Mr. David Flannery reported that the Statutory Authority Committee had been very active and had one meeting in Washington, D.C with the EPA Office of Solid Waste personnel. From that meeting, the EPA received some suggestions on what the IOCC Council would like to see in the Alaska North Slope report.

Mr. Gene Christianson's report on Personnel and Resources included a sample of a questionnaire that his committee might want to circulate among the states.

Ms. Terri Lorenzon reported that the Organization and Coordination Committee had also considered a questionnaire and had been working on refining the idea as a way to gather the needed information from the states.

The last subcommittee report was given by Mr. Michel Pague, who reported that the State and Federal Relationship Committee would be using the EPA Office of Drinking Water Mid-Course Evaluation of UIC program and UIPC/EPA Peer Review Program to

gather the information needed for this committee's work. Mr. Paque reported on these efforts, their progress, and how his committee will use this information for its report. This concluded subcommittee reports.

The Council then received a phone call from Governor George Sinner, Co-Chair of the IOCC Council on Regulatory Needs. Governor Sinner emphasized the importance of the Council's work in showing what is right with some programs and how we can help those that need it. Governor Sinner also explained how the Federal Government's role was shifting to one that issues uniform or generic standards and how the Council's effort would be the states way to have input into exploration and production waste management regulation. The Governor also read a letter he addressed to Representative Luken who chairs a subcommittee on Transportation and Hazardous material. Governor Sinner said the purpose of this letter is to inform the subcommittee of the Council's activities and invite participation. Governor Sinner then thanked the Council members for the time and effort they had put into the project and pledged his continued support.

The next agenda item was introduced by Mr. Jerry Simmons. Mr. Simmons informed the Council that the Department of Energy had offered one of its contractors to the Council to assist in the Council's efforts. Mr. Simmons explained that IOCC staff and two Council members had met and worked on what might be a better way for the council to manage the way it is addressing and working through the issues. Mr. Simmons then introduced Mr. Mike Godec, of ICF Resources Inc., to explain this management system and how the Council might make use of it. After the presentation and discussion, the Council decided not to make use of the plan at this time. Several Council members felt they would be better equipped to use such a framework closer to the end of the project.

The Council then returned to the Technical Subcommittees reports and made comment on these criteria. During the discussion, there was some confusion as to the direction the Council should take. It was decided the subcommittees on Technical and Administrative issues would continue to develop minimum criteria in the form of guidelines/standards the states and EPA will be able to use in the evaluation of state programs.

The Administrative Committees will continue to gather information and will be prepared to present written reports at the next Council meeting in December. The Technical Committees will receive remarks until July 17, 1989. Each subcommittee will then take the comments and write a draft of technical criteria by August 5, 1989. These drafts will circulate to all Council members who will be allowed to submit a non-consensus view on technical criteria by the December meeting.

INTERSTATE OIL COMPACT COMMISSION

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Address Reply to Headquarters Office

STEVE COWPER
Chairman
Governor of Alaska

MEMORANDUM

W. TIMOTHY DOWD
Executive Director

June 29, 1989

TO: Council Members

FROM: Jerry R. Simmons *JRS*

SUBJECT: Field Trip

As voted on at the Reno meeting, we will conduct a Council on Regulatory Needs field trip on August 3 and 4, 1989 in S.W. Wyoming.

All details are not yet complete but to allow you to begin making arrangements, I can provide the following information:

- Arrive Salt Lake City the evening of August 2. I will let you know what hotel to book into.
- Leave Salt Lake the morning of August 3. We will follow Don Basko's itinerary and spend the day observing different field operations. We will spend the night of August 3 in Evanston, Wyoming.
- Friday, August 4 will be another day in the field with the day ending back in Evanston for the second night. Saturday morning, August 5 depart for the airport.

The purpose of this exercise is to be sure all Council members have common ground to work from. We will try to have informal evening discussions on each days events. IOCC staff will prepare a report on the field trip and discussions for Council members as all are not expected to be able to attend.

Council Members
June 28, 1989
Page 2

Please respond as soon as possible so we can make final arrangements. Call the IOCC office at (405) 525-3556 or 1-800-822-4015.

Yes, I plan to attend.

I will attend, but only if provided transportation to Salt Lake Airport Friday p.m.

I would rather leave Saturday a.m. for Jackson Hole (if enough interest, we may provide transportation).

A list of other technical issues was presented to the Council, and they were asked to decide how to best address them and plan future activities. It was decided to postpone any action on this list and continue to work in the present subcommittees until these current subcommittees have completed their tasks.

The last item discussed was the IOCC Council on Regulatory Needs response on the EPA's Alaska North Slope Report. Mr. David Bussard from the EPA gave a brief report on how the agency prepared this report and came to its conclusions. Mr. Bussard also referred to the conclusion of the report where the EPA asked the IOCC Council to respond to specific issues. The Council was given until late July, 1989 to submit its response. Council members chose to address the Alaska North Slope report through the established subcommittees. Members will submit comments to subcommittee chairmen who will present this information to the Technical and Administrative Committee chairmen who, along with IOCC staff, will submit the response to EPA.

Upon adjournment, Mr. LeMay thanked the Council members for the work they had completed and urged them to maintain their enthusiasm.

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Address Reply to Headquarters Office

MIKE SULLIVAN
Chairman
Governor of Wyoming

MEMORANDUM

W. TIMOTHY DOWD
Executive Director

August 15, 1989

RECEIVED

AUG 21 1989

OIL CONSERVATION DIV.
SANTA FE

TO: Governors & Official Representatives and
Council on Regulatory Needs Members

FROM: Jerry R. Simmons *JRS*

SUBJECT: Progress Report

Attached are copies of Governor Sinner's Report on Alaska North Slope Site Visit, and the IOCC letter which comments on EPA's North Slope Report on Exploration and Production Waste Management Practices.

The Council has been very active since our meeting on June 17th in Reno, Nevada. The Technical Committees have developed criteria and will meet in September to issue final versions to the Administrative Committees. The Administrative Committees have sent a questionnaire to the states to obtain current information on state regulatory practices. Administrative Committees will present first draft criteria to the Council at the December meeting.

As voted at the June meeting, those Council members able to attend participated in a field trip to S.W. Wyoming on August 3 and 4. Council members in attendance were:

Donald Basko, Wyoming
Gene Christianson, North Dakota
James Erb, Pennsylvania
Terri Lorenzon, Wyoming
Wesley Norton, North Dakota
William Smith, Colorado
Chris Shuey, Southwest Research and Information Center
Randy Bruton, Industry
Harold Yates, Industry
Nancy Johnson, Department of Energy
Dave Bussard, Environmental Protection Agency, OSW
Mike Fitzpatrick, Environmental Protection Agency, OSW
Charles Perry, Environmental Protection Agency, RCRA Enforcement
Ken Gigliello, Environmental Protection Agency, RCRA Enforcement

IOCC staff members present were: W. Timothy Dowd, Jerry R. Simmons, and Brenda Heitzman. We were also accompanied by members of Don Basko's staff and industry representatives while touring various facilities.

MEMBER STATES ALABAMA · ALASKA · ARIZONA · ARKANSAS · CALIFORNIA · COLORADO · ILLINOIS · INDIANA · KANSAS · KENTUCKY
LOUISIANA · MARYLAND · MICHIGAN · MISSISSIPPI · MONTANA · NEBRASKA · NEVADA · NEW MEXICO · NEW YORK · NORTH DAKOTA · OHIO
OKLAHOMA · PENNSYLVANIA · SOUTH DAKOTA · TEXAS · UTAH · VIRGINIA · WEST VIRGINIA · WYOMING
ASSOCIATES GEORGIA · IDAHO · NORTH CAROLINA · OREGON · SOUTH CAROLINA · WASHINGTON

Memorandum
Page 2
August 14, 1989

As outlined in our grant application, the field trip was designed as an educational tool and to insure that all concerned were addressing issues from the same basic understanding of field operations. The facilities we toured ranged from drilling and producing locations to a gas plant sweetening operation. I believe the trip was a success as those involved became more familiar with each other and the operations observed.

I will update you further as the subcommittees reports on technical and administrative criteria become more refined.

JRS:bjh

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July 17, 1989

MEMO TO: Ms. Kristene Benson
Mr. Tom Edmondson
Mr. Ed Hughes

FROM: H. W. Yates

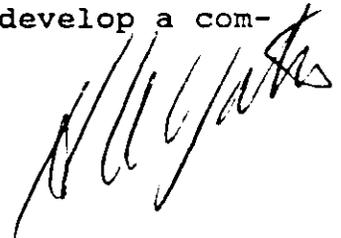
SUBJECT: IOCC E&P Regulatory Review Committee
Land Disposal Criteria

Attached is a revised version of the IOCC land disposal criteria for E&P waste. This version incorporates all comments received from the June IOCC meeting up until today's July 17, 1989 official comment close date. If you have any additional comments that I may be unaware of, please furnish them to me as soon as possible so we can have a finished product by the August field trip meeting. Hopefully, following this meeting, our criteria should be ready for action by the Administrative Subcommittees.

I've attached a table for your reference listing changes to the original criteria. I think you'll agree our time has been well spent, the criteria has been substantially improved and it now forms a substantial foundation to base or test state and federal E&P waste management programs against as well providing a workable basis IOCC can support for RCRA Reauthorization legislation.

It should be noted in reviewing our work product that we took an aggressive approach in recommending prohibitions on land disposal of free oil and high salinity fluids, proposed hydrocarbon and salt loading criteria, recommended relatively short closure periods for reserve pits and recommended permit limits on discharges to surface waters for oil and chloride content. It should be recognized that our criteria are more stringent than many supported by sound technical literature and existing state and federal regulations. For these reasons, plus the time and expenditures that would be necessary for implementation, we should understand the entire committee may wish to make revisions to allow regulatory bodies additional flexibility to adopt specific limitations according to their unique circumstances. I feel this should be a major effort of the Administrative Subcommittees.

Between now and December, I feel our subcommittee should work with the other technical subcommittees and the Administrative Committees in determining the practicality of regulatory agency implementation and administration of our recommendations. We should also test our recommendations against EPA's Alaskan and four other regional reports (yet to be released) on E&P waste management discussed by David Bussard of EPA at the June IOCC meeting. I suggest Tom schedule a conference call sometime prior to the August meeting to decide on a course of action. In the interim, I'll endeavor to develop a comparison of EPA's Alaska Report and our criteria.



c: Mr. Pat Batchelor
Mr. Bill Bryson
Mr. Tim Dowd
Mr. Bill LeMay
Mr. Wes Norton
Mr. Jerry Simmons
Governor George Sinner

Changes From the June Land Disposal

Technical Criteria

- Clarification IOCC's criteria only applies to E&P wastes or those wastes narrowly defined by EPA as drilling muds and cuttings, produced water and associated waste unique and intrinsic to E&P operations and associated with primary field operations necessary to place extracted minerals in merchantable condition. For example, they do not apply to used oils, fuels, solvents, paints, garbage, drums, used batteries, construction rubbish, chemical products or other materials used to maintain equipment, living quarters, commercial products or packaging for commercial products.
- Incorporation of a preferential waste disposal hierarchy.
- Inclusion of a pH requirement for surface land disposal and burial.
- Inclusion of a provision, landspread liquids be applied at a rate that will not result in pooling, ponding or runoff of the liquids.
- Clarification, that salt and hydrocarbon loading criteria pertain to the final waste to soil mixture and are not an application standard.
- Statement that until pits are closed, liability resides with the operator to prevent contamination of an E&P pit with non E&P waste. In the event unintentional, intentional or illegal contamination through dumping or commingling of non-E&P waste occurs, the operator becomes responsible for testing the pit contents and closure under RCRA Subtitle C if hazardous constituents are found over regulatory levels.
- Statement that sufficient pit liquids must be removed during closure to allow sites to be compacted, contoured, and vegetated where necessary to provide ground support stability and prevent erosion of locations.
- Removal of the condition produced wasters with salinities over 3000 ppm TDS (approximately 4 mmhos/cm conductivity) generally should not be used for roadspreading or dust suppression.
- Specification produced waters used in lieu of road salting be used only with the appropriate state or local regulatory agency approval and be tested for similar properties as commercial products approved by states regulatory agencies for this purpose.
- Specification produced water for road salting or dust suppression be used at loading rates that minimize the possibility of pooling and surface runoff.

■ Clarification until EPA issues NPDES permits for Clean Water Act Discharges to various waters of the United States that states should require individual discharge permits.

■ Reference to underground injection control regulations for Class II wells and possible incorporation of these provisions pending completion of EPA's 1989 regulatory review.

IOCC E&P Regulatory Review

Land Disposal Criteria for E&P Wastes

Definition: Land disposal practices for E&P waste should utilize methods of treatment and disposal that promote reduction of organic and inorganic constituents by natural processes such as dilution, adsorption and biodegradation. These management practices include landspreading, roadspreading, burial, NPDES discharge and use of UIC Class II injection wells. Pit closure is discussed as a land disposal practice because it uses a combination of landspreading and burial/landfill techniques.

These criteria are designed for onsite waste disposal at E&P locations and not repetitive commercial disposal operations. Commercial facilities for disposal of E&P waste are covered in a separate IOCC criteria. When these practices are used at E&P sites, they should be conducted consistent with lease and landowner obligations and local, state, and federal waste and land use regulations.

These criteria only apply to E&P wastes consisting of drilling muds and cuttings, produced water and associated wastes. The Environmental Protection Agency (EPA) has narrowly defined these waste as those wastes unique and intrinsic to E&P operations and associated with primary field operations necessary to place extracted minerals in merchantable condition. The American Petroleum Institute's Document No. 811-10850 "Onshore Solid Waste Management in Exploration and Production Operations" fully describes and lists E&P wastes and the major statutes governing their management. For example, they do not include used oils, fuels, spilled fuels, solvents, paints, garbage, construction rubbish, used batteries, drums, chemical products, commercial products or other materials or industrial wastes used to maintain equipment, living quarters or packaging from commercial products. These wastes are regulated by other federal and state nonhazardous and hazardous waste regulations.

Criteria: Federal and State regulations for land disposal of exempt and nonexempt, nonhazardous E&P waste should address the following criteria. Although special circumstances may exist warranting regulatory approval of other specific practices, management of wastes land disposed should generally adhere to these criteria in the absence of more specific requirements.

As in any aspect of waste management, these are some general, sound practices that should be employed. These sound practices not only serve to protect human health and the environment, but also tend to protect waste generators from longterm liabilities associated with waste disposal. As a general rule-of-thumb, the choice of a waste

management option should be based upon the following hierarchy of preference:

- 1) Source Reduction - reduce the quantity or relative toxicity of waste generated;
- 2) Recycling - reuse or reclaim as much of the waste generated as possible, whenever possible, hydrocarbons should be recombined with crude oil, condensate or natural gas liquids;
- 3) Treatment - employ techniques to reduce the volume or the relative toxicity of waste that has been unavoidably generated;
- 4) Proper Disposal - utilize environmentally-sound methods to place waste generated into the environment in a way that minimizes its impact and protects human health.

Landspreading:

- Landspreading should be practiced in accordance with local, state and federal land use regulations, and if on private property, consistent with lease obligations.
- Before landspreading, free oil should be removed.
- Landspread liquids should have a pH of 6-10. If needed, liquids should be neutralized to obtain this range.
- Landspread waste should be spread evenly and generally disked into the soil.
- Landspread liquids should not be applied at a rate that will result in pooling, ponding or runoff of liquids.
- Where enhancement of biodegradation is desired, nitrogen and other nutrients should be added to the soil before disking. Nitrogen addition/disking can be repeated over the course of time.
- Landspreading of salt containing waste should be limited to waste/soil mixtures with soluble salt levels below 3000 ppm TDS (approximately 4 mmhos/cm conductivity), and exchangeable sodium percentage less than 15, and a sodium adsorption ratio less than 12.
- Landspreading of hydrocarbon containing waste should be limited to oil and grease concentrations of up to one percent by weight in the waste/soil mixture.
- Salt and hydrocarbon loading criteria pertain to the final waste to soil mixture and are not an application standard.

- Enhanced techniques such as repetitive disking and nutrient addition may be used to bring the final waste to soil mixture to salt and hydrocarbon concentrations.

- Additional limitations and analysis requirements should be considered if formations are encountered while drilling or mud additives or other substances used that are known to contribute significant quantities of potential toxic constituents to waste to be landspread. Records should be maintained of analyses taken.

■ Burial/Landfill:

- Burial/Landfill should be practiced in accordance with local, state and federal land use regulations, and if on private property, consistent with lease obligations.

- Burial or landfilling without a protective liner should be primarily limited to solid or semisolid, low salt, low hydrocarbon content inert materials (such as fresh water based drilling muds, spent iron sponge, pipe scale, gas plant catalyst, molecular sieve, etc.). Wastes should meet landspreading criteria prior to burial (no free oil, pH of 6-10, final waste/soil hydrocarbon content less than one percent, chlorides less than 3000 ppm TDS).

- When salt and/or hydrocarbon content of the waste exceeds the criteria for landspreading, a liner or encapsulation technique should be used unless it can be shown that groundwater is either not present or is naturally protected from significant threat of contamination.

- Records should be maintained of any analytical data taken, sites used and types and quantities of waste disposed.

■ Pit Closure:

- Pits should be closed in accordance with local, state and federal land use regulations, and if on private property, consistent with lease obligations.

- Reserve pits should be closed as soon as practical or generally within 12 months after cessation of drilling operations to minimize their potential for becoming illegal dumping sites.

- Pit liquids should have free oil removed and be sampled for TDS content prior to closure. Landspreading and burial/landfill criteria should govern whether liquids, muds and cuttings can be landspread or buried/landfilled.

- Until pits are closed, liability resides with the operator to prevent contamination of an E&P pit with non E&P waste. In the event unintentional, intentional or illegal contamination through dumping or commingling of non-E&P waste occurs, the operator becomes

responsible for testing the pit contents and closure under RCRA Subtitle C in the event hazardous constituents are found over regulatory levels.

- Nonliquid materials not satisfying onsite land disposal criteria must be disposed in federal or state approved centralized or commercial land disposal facilities. Operators should keep records of type, volume, analytical data, destination, and hauler used for materials disposed at these facilities.

- Liquids not satisfying land disposal criteria may be injected down a drill well annulus, Class II UIC well or NPDES discharged according to federal or state well drilling, injection well or NPDES regulations.

- Sufficient pit liquids must be removed to allow sites to be compacted, contoured, and vegetated where necessary to provide ground support stability and prevent erosion of locations. Records should be kept of pit locations.

■ Roadspreading:

- Exempt wastes such as tank bottoms, emulsions, heavy hydrocarbons and crude oil contaminated soil may be used for road oil, road mix, or asphalt if they are analyzed, found not to be ignitable (flash point above 140 degrees Fahrenheit), and have a mixed density and metal content consistent with approved road oils or mixes.

- Application of hydrocarbon wastes should be at loading rates that minimize the possibility of pooling and surface runoff.

- Application of hydrocarbon waste to private or public roads should be reviewed with landowners and appropriate state or local regulatory agencies.

- Produced waters used in lieu of road salting should be used only with state or local regulatory agency approval and should be tested and exhibit similar properties as commercial products approved by states regulatory agencies for this purpose.

- Application of produced water for road salting or dust suppression must be at loading rates that minimize the possibility of pooling and surface runoff.

■ NPDES Discharges:

- All point source discharges to waters of the U.S. are subject to NPDES discharge permits administered under the Clean Water Act (40 CFR Part 435). This program establishes conditions for discharges in different areas recognizing the unique environmental aspects of these

areas. Discharge categories that impact exploration and production activities include the following:

- 1) Coastal areas which contain brackish waters not suitable for human usage.
- 2) Beneficial usage, which are discharges of low salinity produced waters in arid regions (west of the 98th meridian) where they may provide the only source of water for livestock and wildlife.
- 3) Stripper discharges allowed for marginal wells.

- Federal regulations are being developed in these areas by the EPA. When developed, states will be required to adopt regulations at least as stringent as the EPA's to receive authority from EPA to regulate NPDES discharges. Neither states or EPA can authorize NPDES discharges that degrade the quality of receiving waters or exceed EPA approved state water quality standards.

- Until federal regulations are enacted and authority for NPDES discharges delegated to the states or directly exercised by EPA, states should individually permit all wastewater discharges to surface waters. These permits should specify hydrocarbon content of the discharge and chloride impact on the receiving water body. These limits should be established by individual states based upon types of receiving water bodies and area wide conditions.

■ Class II Injection Wells

- The Safe Drinking Water Act established a special class (Class II) of injection wells for oilfield related fluids. Class II regulatory programs are either directly administered by the states (primacy programs) or by the EPA where states do not administer the programs (direct implementation or DI states). Primacy states have negotiated Primacy Agreements with EPA and in return receive funding for program implementation conditional upon meeting minimum EPA specified standards. Primacy agreements, which may be amended with approval from the EPA, largely dictate what can be injected in Class II injection wells. The EPA determines what can be injected in Class II injection wells in DI states.

- The most significant minimum requirements that Class II wells must meet are:

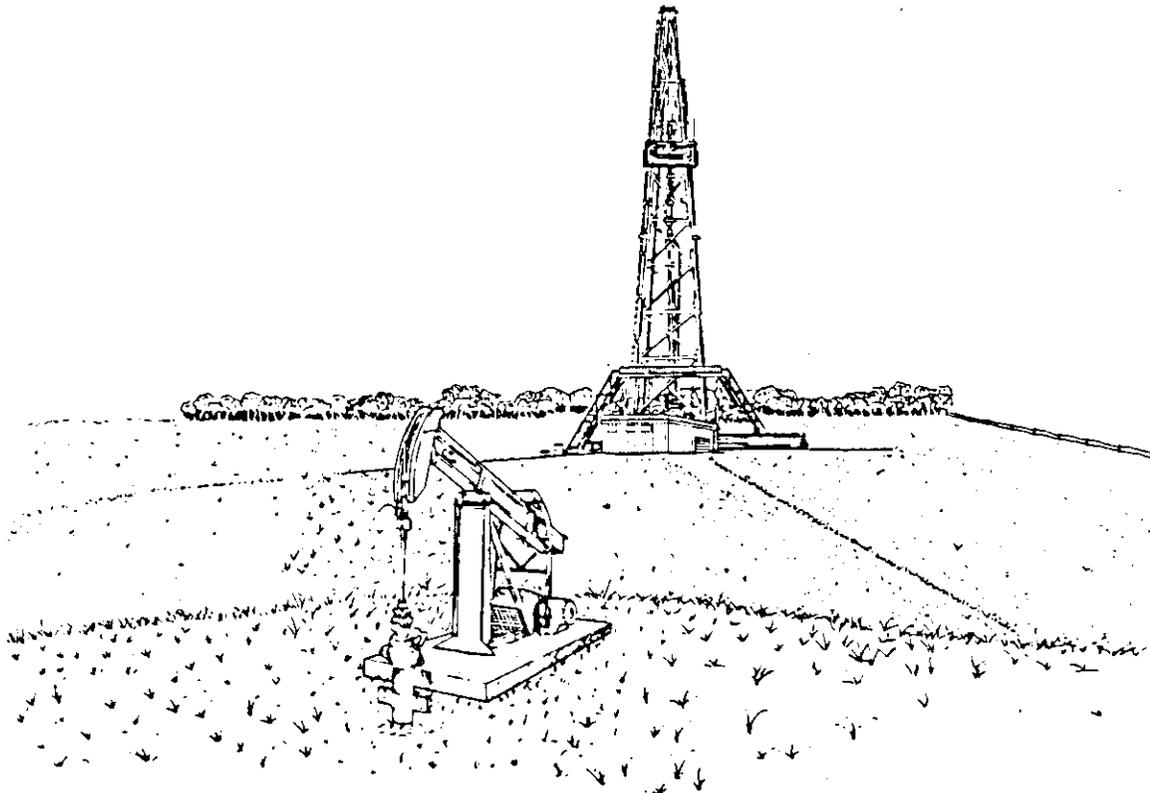
- a) Only approved E&P wastes may be injected.
- b) No well may endanger a Usable Source of Drinking Water (USDW).
- c) Unless permitted by rule, all wells must be permitted before construction.
- d) All wells must periodically demonstrate mechanical integrity.

- EPA is conducting a comprehensive review of the UIC program in 1989. IOCC will review the final recommendations of this review at its completion for possible inclusion in its land disposal criteria.

Selected Sections from
API Document 811-10850
"Onshore Solid Waste Management In Exploration
and Production Operations"

API ENVIRONMENTAL GUIDANCE DOCUMENT

ONSHORE SOLID WASTE MANAGEMENT IN EXPLORATION AND PRODUCTION OPERATIONS



FIRST EDITION, JANUARY 15, 1989

American Petroleum Institute
1220 L Street, Northwest
Washington, DC 20005



SECTION 1

SUMMARY OF ENVIRONMENTAL REGULATIONS

A number of environmental regulations affect exploration and production waste management and disposal practices and impose responsibility and liability for protection of human health and the environment from harmful waste management practices or discharges. These regulations are summarized in this section.

1.1 The Resource Conservation and Recovery Act (RCRA)

RCRA was enacted in 1976 and required EPA to (1) establish procedures for identifying wastes as either hazardous or nonhazardous, and (2) promulgate requirements for the management of both.

- EPA established four different criteria or characteristics to determine if a waste is hazardous: reactivity, corrosivity, ignitability, and toxicity. EPA also listed certain specific wastes (including known poisons and carcinogens) as hazardous. Thus, hazardous wastes are described as characteristically hazardous or listed hazardous wastes.

- Hazardous waste disposal is regulated under RCRA Subtitle C regulations which are extremely stringent.

- Nonhazardous wastes are regulated under RCRA Subtitle D regulations, which are less extensive and depend primarily on state controls. To date, EPA has established minimal criteria aimed at insuring that non-hazardous waste management facilities operate as sanitary landfills rather than "open dumps". States are required to submit Solid Waste Management Plans for EPA approval and funding. EPA activity and RCRA amendments after 1988 are likely to increase the emphasis on Subtitle D wastes and establish

additional minimum standards that state programs must include for Subtitle D waste management. The basic mechanism for administering the programs (i.e., submission of state plans for EPA approval) will probably remain.

When RCRA was amended in 1980, Congress decided that wastes generated by oil and gas exploration and production operations (as well as mining, geothermal operations, electric utilities, and cement kilns) required special consideration. The 1980 RCRA amendments (1) exempted oil industry exploration and production wastes from regulation under RCRA hazardous waste provisions (Subtitle C), and (2) directed the EPA to study such wastes and recommend appropriate regulatory action to Congress.

The EPA study was to include an analysis of:

- Source and volume of waste.
- Present disposal practices.
- Danger to human health and the environment.
- Documented cases of danger to human health and the environment.
- Alternatives to current disposal methods.
- Cost of alternative disposal methods.
- Impact of alternative disposal methods on exploration and production.

The EPA conducted the study and submitted a report to Congress on exploration and production wastes on December 28, 1987. On the basis of that study, the Agency made public its Regulatory Determination on June 30, 1988. In that Determination, the Agency stated:

- "The Agency has decided not to promulgate regulations under Subtitle C (for exploration and production wastes)."

- "Existing State and Federal regulations are generally adequate... ..certain regulatory gaps do exist, however, and enforcement of existing regulations in some States is inadequate."

The EPA listed examples of waste treatment methods and general field practices which in specific instances have not been used in an environmentally-sound manner. At issue is not the practices themselves but the lack of state regulations for oversight of the practices. These treatment methods/practices include:

- Landfarming
- Roadspreading
- Pit construction
- Surface water discharges
- Central disposal and treatment facilities
- Abandonment practices (existing and previously abandoned wells)
- Arctic operations
- Associated wastes

- "Existing Federal standards under Subtitle D of RCRA... ..do not fully address the specific concerns posed by oil and gas wastes.

Nevertheless, EPA has authority under Subtitle D to promulgate more tailored criteria. In addition, the authorities available under the Clean Water Act or Safe Drinking Water Act can be more broadly utilized, and efforts are already underway to fill gaps under these programs."

In the June 30, 1988 Regulatory Determination, EPA further stated that its plans were as follows:

"The Agency plans a three-pronged approach toward filling gaps in existing State and Federal regulatory programs by:

- 1) Improving Federal programs under existing authorities in Subtitle D of RCRA, the Clean Water Act, and Safe Drinking Water Act;**
- 2) Working with States to encourage changes in their regulations and enforcement to improve some programs; and,**
- 3) Working with the Congress to develop any additional statutory authority that may be required."**

1.2 The Safe Drinking Water Act (SDWA)

The SDWA was passed in 1974, and regulations were subsequently promulgated for regulation of oilfield underground injection wells under the underground injection control (UIC) program. The UIC program established a special class (Class II) of injection wells for oilfield related fluids ¹; the regulations governing them take into consideration the statutory requirement that regulation of Class II wells should not impede oil and gas production unless necessary to prevent endangerment of underground sources of drinking water (USDWs) ².

1 EPA regulations generally provide that fluids approved for Class II wells include (1) fluids brought to the surface in oil and gas production, (2) commingled waste waters from gas plants (if not hazardous at the time of injection), and (3) fluids injected for enhanced recovery.

2 An USDW is an aquifer which supplies drinking water for human consumption or for any public water system, or contains fewer than 10,000 mg. per liter total dissolved solids, and does not contain minerals or hydrocarbons that are commercially producible, and is situated at a depth or location which makes the recovery of water for drinking water purposes economically or technologically practical.

Class II regulatory programs are either directly administered by the states (primacy programs) or by the EPA where states do not administer the programs (direct implementation or DI states). Primacy states have negotiated primacy agreements with EPA and in return receive funding for program implementation conditional upon meeting minimum EPA specified standards. Primacy agreements, which may be amended with approval from the EPA, largely dictate what can be injected in Class II injection wells. The EPA determines what can be injected in Class II injection wells in DI states.

The most significant minimum requirements that Class II wells must meet are:

- Only approved exploration and production wastes may be injected.
- No well may endanger USDWs.
- Unless permitted by rule, all wells must be permitted before construction.
- All wells must periodically demonstrate mechanical integrity ¹.

1.3 The Clean Water Act (CWA)

The CWA was enacted in 1972 primarily to control point source discharges into waters of the United States. All point source discharges require National Pollutant Discharge Elimination System (NPDES) or state equivalent permits. Discharges of produced water, drilling mud, cooling water, etc., are examples of point source discharges. Permit conditions usually require periodic monitoring and reporting of discharged effluent constituents which may not exceed specified technology-based or water-quality based concentration standards.

¹ EPA defines mechanical integrity as "no significant leak in the casing, tubing and packer and no significant fluid movement into an USDW through vertical channels adjacent to the injection wellbore."

Under Section 311 of the Act, the discharge of oil into waters of the United States must be reported to the Coast Guard National Response Center in Washington D.C. Operators are subject to fines and penalties if spills are not reported as required under the Act. The EPA promulgated Oil Pollution Prevention Regulations (40 CFR Part 112) in 1973 to mitigate the impacts of accidental spill discharges onto surface waters.

Operators are required to prepare Spill Prevention Control and Countermeasure (SPCC) plans for non-transportation related facilities in state offshore waters and onshore in areas where spills can potentially enter waters of the United States. SPCC plans are required for those facilities which have oil storage capacities more than 660 gallons in a single tank, or collectively, 1320 gallons or more above ground, or 42000 gallons or more underground. The SPCC program sets minimum standards for certain aspects of facility design and operation.

Finally, the regulations require that an SPCC plan be prepared within six months of commencement of facility operation and implemented within one year after commencement of operations. The guidelines for preparing and implementing an SPCC Plan are found at 40 CFR Part 112.7 for prevention and control of an oil spill. If installation of the equipment called for in the guidelines is not practicable, a strong contingency plan following the provisions in 40 CFR Part 109 must be prepared. The SPCC plan must be certified and reviewed every three years by a registered professional engineer.

1.4 The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

CERCLA, commonly known as Superfund, was passed into law in December 1980. Superfund established a program to identify sites from which releases of hazardous substances into the environment might occur or have occurred, to ensure that they are cleaned up by responsible parties or the government, to evaluate damages to natural resources, and to create a claims procedure for parties who have cleaned up sites or spent money to restore natural resources. Under CERCLA, releases of hazardous materials above the reportable quantity must be reported to the Coast Guard National Response Center.

Under CERCLA, EPA has broad enforcement authority to require Potentially Responsible Parties (PRPs) to undertake cleanups (Section 106) or to recover costs incurred in conducting remedial actions from PRPs (Section 107).

Courts have interpreted the statute to be retroactive in its application, to provide for strict liability without regard to fault, and in appropriate circumstances to impose joint and several liability. CERCLA provides operators with a significant economic incentive to properly manage disposition of solid wastes at both onsite and offsite locations to avoid being involved in expensive clean-up activities.

For example, it would be financially unsound to **knowingly** allow hazardous waste to contaminate a nonhazardous exploration and production waste site making it a potential CERCLA site, and be named as a PRP by EPA. EPA has taken the position that non-petroleum "special wastes", although exempt from RCRA Subtitle C hazardous waste regulations, may nevertheless result in CERCLA liability if any of the constituents are "hazardous substances" as otherwise listed under CERCLA.

CERCLA provides for the exclusion of petroleum, including crude oil or any fraction thereof, from the definition of hazardous substance, pollutant, or contaminant. EPA has interpreted the petroleum exclusion to include, in their entirety, pure petroleum and pure petroleum fractions even though they contain substances that are otherwise listed as hazardous substances. Thus, EPA interprets the term "petroleum" to encompass crude oil, crude oil fractions, and refined products, such as gasoline, including any indigenous hazardous substances.

1.5 Federal Land Management Regulations

The National Environmental Policy Act of 1969 (NEPA) requires detailed environmental reviews, either environmental assessments or environmental impact statements (EIS), for major federal actions undertaken or permitted by agencies of the federal government when those actions may significantly affect the quality of the human environment. The determination of whether a particular permit or approval constitutes a "major Federal action" is to be made early in the review process by the agency involved (40 CFR 1501.2 and 1501.4). If the agency decides that an EIS will not be necessary, it is, nevertheless, required to prepare an environmental assessment to justify its decision (40 CFR 1501.3). The question of whether a proposed federal action will significantly affect the quality of the human environment is necessarily related to that of whether the proposal is a "major Federal action" (40 CFR 1508.18) and is based on both beneficial and adverse effects on the environment which would result from the implementation of the proposal.

The Federal Land Policy and Management Act of 1976 (FLPMA) (43 U.S.C. §1701 through 1782) establishes comprehensive land use guidelines for the Bureau of Land Management (BLM) on how to manage public lands under its jurisdiction. Section 603 of FLPMA (43 U.S.C. §1782) directs the Secretary of the Interior and the BLM to review all public land roadless areas of 5,000 acres or more and roadless islands having wilderness characteristics, determine their suitability or unsuitability for wilderness designation, and report the suitability recommendations to the President no later than October 21, 1991.

Federal agencies are required by Section 7 of the Endangered Species Act (16 U.S.C. §1536) to ensure that such activities neither jeopardize endangered or threatened species, nor destroy or modify the critical habitat of such species.

An "endangered" species is a species which is in danger of extinction throughout all or a significant portion of its range. A "threatened" species is one which is likely to become "endangered". The authority to place species on the "endangered" or "threatened" list is vested in the Secretary of the Interior and the Secretary of Commerce. The listing process may be initiated by the petition of any interested person requesting review, by the Secretary of the Interior, of the status of a species of wildlife or plant.

The inclusion, removal or change of status of a species with regard to the protected species list follows formal rulemaking procedures. The List of Endangered and Threatened Wildlife and Plants is published periodically in the Federal Register. Once listed, a species is subject to protection under the Endangered Species Act (16 U.S.C. §§1531 through 1543). No person is allowed to "take" protected fish, wildlife or vegetation without an "incidental taking permit"; and a willful violation of this prohibition is subject to criminal punishment. In addition, all federal agencies have the duty to ensure that federal actions will not significantly impair or jeopardize either the protected species or its critical habitat.

The Federal Oil and Gas Royalty Management Act of 1982 (30 U.S.C. §1701 et. seq.) (FOGRMA) was designed to assure proper and timely revenue accountability for production from onshore Federal and Indian oil and gas leases, to address Outer Continental Shelf matters, to address lease reinstatement, to prescribe onshore field operations requirements for inspections and enforcement actions, to establish the basis for cooperation with States and Indian tribes for onshore Federal leases, and to establish duties of lessees, operators and others involved in the production, storage, measurement and transportation or sale of oil and gas from Federal onshore and Indian leases. The FOGRMA regulations require oil and gas operators on federal lands to maintain site security, and construct and operate wells and the associated facilities in a manner which protects the environment and conserves the federal resource.

1.6 State Environmental Performance Regulations

All state oil and gas regulatory agencies have regulations aimed at ensuring that the state's citizens and natural resources are protected from potential environmental damage. Certain exploration and production wastes/practices are subject to regulation by state agencies responsible for environmental protection. There is typically a Memorandum Of Understanding (MOU) that delineates the specific areas of authority for the various state agencies involved.

Oil and gas exploration and production takes place in states with widely diverse geological and environmental conditions; and consequently, state regulations have evolved relatively independently and exhibit a variety of approaches to environmental protection.

However, a review of all oil and gas producing state statutes, rules and regulations indicates that all states have existing regulations providing regulatory agencies the right of access to inspect producing properties for regulatory compliance and to investigate complaints associated with environmental or other problems. In the event problems are identified, all states have the authority to:

- Issue cease and desist orders;
- Assess or seek administrative, civil or criminal penalties;
- Order cleanups, and
- If necessary, ban further operations and sever an operator's pipeline connection.

1.7 Oil and Gas Lease Agreements

Operators should keep in mind that lease agreements may impose obligations with respect to waste treatment or disposal or reclamation which may be different or more stringent than regulatory requirements.

SECTION 2

THE EXPLORATION AND PRODUCTION EXEMPTION FROM RCRA SUBTITLE C REGULATION

As reviewed in Section 1, Congress recognized the special nature of oil and gas exploration and production wastes, and exempted them from hazardous waste regulation under RCRA Subtitle C, subject to an EPA study. This study, and the June, 1988 Regulatory Determination that followed, concluded the exemption is appropriate and should be continued.

This section deals with EPA's definition of a solid waste and identifies the wastes that have been designated by EPA as exempt and nonexempt. It also addresses the manner in which these definitions can complicate management and disposal of nonexempt wastes.

2.1 Definition of Solid Waste

In simplest terms, a solid waste is any material that is discarded or intended to be discarded. According to RCRA, solid wastes may be either solid, semi-solid, liquid, or contained gaseous material.

Specifically excluded are point source discharges subject to NPDES permits under the Clean Water Act. Commercial products are not wastes unless and until they are discarded. Commercial products are regulated under other statutes such as the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), the Toxic Substances Control Act (TSCA), the Superfund Amendments and Reauthorization Act (SARA) and the Occupational Safety and Health Act.

EPA has also determined that produced water injected for enhanced recovery¹ is not a waste for purposes of RCRA Subtitle C or D, since

1. Enhanced recovery describes all efforts to increase ultimate production of oil and gas from a reservoir, and this terminology will be considered to encompass other nomenclature in common usage such as pressure maintenance, secondary recovery, and tertiary recovery. All enhanced recovery techniques include methods for supplementing natural reservoir forces and energy, or otherwise increasing ultimate recovery. Such techniques include water injection, gas injection, gas cycling, and miscible chemicals and thermal processes.

produced water used in enhanced recovery is beneficially recycled and is an integral part of some crude oil and natural gas production processes. Also, as stated in Section 1.2, this practice is regulated under the Safe Drinking Water Act's Underground Injection Control Program.

2.2 Hazardous Waste Criteria

Under RCRA, a solid waste may become designated as a hazardous waste by being specifically listed or by exhibiting one of the characteristics identified in the regulations.

2.2.1 Listed Hazardous Waste

EPA has listed numerous types or classes of solid wastes as hazardous waste because they typically exhibit one or more of the characteristics of hazardous waste (see Section 2.2.2), or have been shown to meet certain human toxicity criteria, or contain any one of the chemical compounds or substances listed as hazardous constituents.

The regulations contain four lists of hazardous wastes: (1) hazardous waste from non-specific sources, (2) hazardous waste from specific sources, (3) commercial chemical products considered acute hazardous waste when disposed, and (4) commercial chemical products considered toxic wastes when disposed.

2.2.2 Characteristically Hazardous Waste

EPA has developed four tests for use in determining when a solid waste that is not listed as a hazardous waste or specifically excluded from regulation as a hazardous waste must be managed as a hazardous waste. EPA considers any nonexempt waste to be a hazardous waste if it exhibits any one of the characteristics of ignitability, corrosivity, reactivity, or toxicity.

2.3 EPA's Mixture Rule

EPA's RCRA regulations contain a so-called "mixture rule" that provides that the commingling of any listed hazardous waste with a nonhazardous waste stream renders the entire mixture a hazardous waste. The intent of this rule is to prevent avoidance of hazardous waste regulations through dilution.

With respect to exploration and production wastes, operators should avoid disposing unused commercial products with oilfield wastes. All reasonable efforts should be made to completely use commercial products, return them to their vendor, or segregate them from other wastes for management and disposal.

Discarding a listed hazardous waste (e.g., a half empty container of a listed solvent) in a reserve pit would cause the otherwise exempt pit contents to become a hazardous waste and result in the expensive closing of the reserve pit under RCRA hazardous waste regulations.

2.4 EPA's List of Exempt Exploration and Production Wastes

The following wastes are listed as exempt in EPA's Regulatory Determination submitted to Congress in June 1988.

- Produced water
- Drilling Fluids
- Drill Cuttings
- Rigwash
- Drilling fluids and cuttings from offshore operations disposed of onshore
- Well completion, treatment, and stimulation fluids
- Basic sediment and water and other tank bottoms from storage facilities that hold product and exempt waste
- Accumulated materials such as hydrocarbons, solids, sand, and emulsion from production separators, fluid treating vessels, and production impoundments
- Pit sludges and contaminated bottoms from storage or disposal of exempt wastes
- Workover wastes
- Gas plant dehydration wastes, including glycol-based compounds, glycol filters, filter media, backwash, and molecular sieves

-
- Gas plant sweetening wastes for sulfur removal, including amine, amine filters, amine filter media, backwash, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber liquid and sludge
 - Cooling tower blowdown
 - Spent filters, filter media, and backwash (assuming the filter itself is not hazardous and the residue in it is from an exempt waste stream)
 - Packing fluids
 - Produced sand
 - Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from piping and equipment prior to transportation
 - Hydrocarbon-bearing soil
 - Pigging wastes from gathering lines
 - Wastes from subsurface gas storage and retrieval, except for the listed nonexempt wastes
 - Constituents removed from produced water before it is injected or otherwise disposed of
 - Liquid hydrocarbons removed from the production stream but not from oil refining
 - Gases removed from the production stream, such as hydrogen sulfide and carbon dioxide, and volatilized hydrocarbons
 - Materials ejected from a producing well during the process known as blowdown
 - Waste crude oil from primary field operations and production and
 - Light organics volatilized from exempt wastes in reserve pits or impoundments or production equipment.

2.5 EPA's List of Nonexempt Exploration and Production Wastes

EPA's Regulatory Determination for exploration and production wastes lists the following wastes as nonexempt. It appears that the EPA concluded waste materials from maintenance of production equipment as well as transportation (pipeline and trucking) related wastes were nonexempt. While the following wastes are nonexempt, they are not necessarily hazardous. Nonexempt wastes should be managed as described under Section 2.7.

- Unused fracturing fluids or acids
- Gas plant cooling tower cleaning wastes
- Painting wastes
- Oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums transporting or containing nonexempt waste
- Refinery wastes
- Liquid and solid wastes generated by crude oil and tank bottom reclaimers
- Used equipment lubrication oils
- Waste compressor oil, filters, and blowdown
- Used hydraulic fluids
- Waste solvents
- Waste in transportation pipeline-related pits
- Caustic or acid cleaners
- Boiler cleaning wastes
- Boiler refractory bricks
- Incinerator ash
- Laboratory wastes
- Sanitary wastes

- **Pesticide wastes**
- **Radioactive tracer wastes**
- **Drums, insulation, and miscellaneous solids.**

EPA did not specifically address in the Regulatory Determination the status of hydrocarbon-bearing material that is recycled or reclaimed by reinjection into a crude stream (used oils, hydraulic fluids, and solvents).

However, under existing EPA regulations, recycled oil, even if it were otherwise hazardous, could be reintroduced into the crude stream, if it is from normal operations and is to be refined along with normal process streams at a petroleum refinery facility [see 40 CFR §261.6 (a)(3)(vi)].

2.6 Additional Exempt Wastes

It should be noted that EPA's lists of exempt and nonexempt wastes are not all-inclusive and that determinations will need to be made on a number of other incidental wastes. In deciding which wastes were exempt, it appears that EPA focused on wastes necessary to conduct so-called "primary field operations" (including centralized facilities and gas plants). Using this approach, the following wastes, although not specifically listed as exempt, appear clearly exempt.

- **Excess cement slurries and cement cuttings**
- **Sulfur contaminated soil or sulfur waste from sulfur recovery units**
- **Gas plant sweetening unit catalyst**
- **Produced water contaminated soil**
- **Wastes from the reclamation of tank bottoms and emulsions when generated at a production location**
- **Production facility sweetening and dehydration wastes**
- **Pigging wastes from producer operated gathering lines**
- **Production line hydrotest/preserving fluids utilizing produced water**
- **Iron sulfide.**

This section does not address wastes exempt from Subtitle C under other provisions of RCRA (e.g., 40 CFR 261.4).

2.7 Requirements for Nonexempt Wastes

Operators should consider testing nonexempt wastes whenever there is reason to believe they may exhibit one of the hazardous waste characteristics. Although there is no requirement that a nonexempt waste be tested to determine if it is hazardous, civil and criminal penalties may be imposed if the waste is not managed in a safe manner, and according to regulations.

It is also important to emphasize the prudence of segregating non-exempt waste from exempt waste. One possible implication is that knowingly commingling of a nonexempt waste with an exempt waste could result in the entire waste stream losing its exempt status and perhaps having to be handled as a hazardous waste. If the nonexempt waste were a listed hazardous waste, EPA's mixture rule (Section 2.3) makes the entire commingled waste stream subject to stringent RCRA Subtitle C requirements, including the requirement that it be disposed at a hazardous waste facility. Therefore, it is usually in the best interest of an operator to routinely segregate nonexempt waste from exempt waste. When segregation is not practical, the nonexempt waste should be examined closely to ensure that it is not a hazardous waste.

Finally, there are a few states with hazardous waste regulations which differ from those the EPA has promulgated. These state rules are at least as stringent as the federal regulations (by law they must be at least equivalent to those set forth by the EPA).

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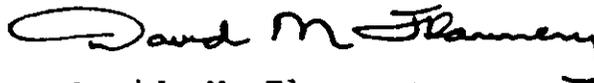
Re: Technical Criteria.

Dear Bill:

I have reviewed the proposed technical criteria prepared by your committee with representatives of the nine state trade organizations that I represent. These Appalachian Producers offer several comments regarding these proposals that we wish to bring to your attention at this time.

We greatly appreciate the opportunity to review and comment on these proposals and invite you or any of your subcommittees to contact us for any further comment on any of these points.

Very truly yours,



David M. Flannery

DMF/se

cc: Mr. Randolph C. Bruton, Jr.
Mr. J. Patrick Batchelor
Mr. Philip M. Hocker
Mr. Jerry Simmons

COMMENTS OF APPALACHIAN PRODUCERS
WITH RESPECT TO STRAWMAN TECHNICAL CRITERIA
PROPOSED BY THE IOCC TECHNICAL COMMITTEE

May 12, 1989

The Technical Committee of the IOCC's Council on Regulatory Needs is currently circulating a draft of criteria with respect to (1) commercial facilities, (2) surface disposal, and (3) pits. These criteria are being circulated for comment as a part of IOCC's effort to develop technical and administrative criteria for application to the management of oil and gas wastes throughout the nation. The Appalachian Producers are an ad hoc affiliation of the following nine state trade organizations representing oil and gas producers in the seven principal Appalachian states:

Independent Oil and Gas Association of New York;
Independent Oil and Gas Association of West Virginia;
Kentucky Oil and Gas Association;
Ohio Oil and Gas Association;
Pennsylvania Natural Gas Associates;
Pennsylvania Oil and Gas Association;
Tennessee Oil and Gas Association;
Virginia Oil and Gas Association; and
West Virginia Oil and Natural Gas Association.

These organizations have been active in all aspects of EPA's ongoing efforts to review the waste management practices of the oil

and gas industry. They are pleased to have an opportunity to offer these comments on the draft criteria.

At the outset, a few general observations are appropriate to understand the underlying motivation of the Appalachian Producers for many of the comments that will be offered. It has been our experience that the effective regulation of the waste management practices of the oil and gas industry must necessarily be maintained on an extremely flexible basis to allow regional and local factors to be properly addressed. This is true of substantive waste management practices and the procedures that are used to implement such practices.

In Appalachia, the oil and gas industry is characterized by a remarkably different set of factors than would confront much of the remainder of oil and gas production in the nation. For instance, rather than employing drilling mud, the vast majority of the drilling employs air. Much smaller quantities of waste are, therefore, produced with much less toxic characteristics than might otherwise be the case. In addition, Appalachian production is characterized by the drilling of a great many wells with relatively small production per well. Accordingly, it is necessary for the burden of regulatory and permitting requirements to be spread over relative small volumes of product.

The regulatory programs in the Appalachians have developed along carefully drawn lines. The competing factors faced by the region simply must be taken into account in the development

and implementation of a regulatory program if the environment is to be adequately protected while at the same time accommodating the vital interests of the region in sustaining oil and gas drilling and production.

These comments will focus on how any criteria developed by the IOCC should be framed to allow the flexibility that would be necessary to accommodate the differing waste management practices that will be needed throughout the country to accommodate regional and local characteristics.

A. Surface Disposal.

1. Land Spreading - The land spreading criteria should make a sharper distinction between liquids and solids. Common practice in the Appalachians is to land spread liquids while leaving solids in a drilling pit to be handled as a part of pit closure. The proposed disking and nutrient supplementation criteria seem more appropriate to solids than to liquids. New liquid land spreading criteria should be considered to address concerns about runoff and ponding and to set limits where appropriate on the repeated nature of land applications to a single area. These matters are addressed extensively in the West Virginia General Permit which was circulated in the May 1, 1989 memorandum from H. W. Yates to W. R. Bryson.

2. Chloride Concentrations - We are very concerned about the proposed criteria of 3,000 ppm TDS as being much too restrictive for the land application of liquids in the

Appalachians. In West Virginia, there have been several thousand cases involving the land application of drilling liquids in the four years that a state permit program has been in effect. There is only one documented case where any of those applications had any adverse impact whatsoever on vegetation. In that one case, there was some temporary browning of vegetation which recovered fully within two weeks. Currently, the regulatory program in West Virginia would allow the discharge of drilling pit liquids containing chloride concentrations of 12,500 ppm and with inspector approval discharges of up to 25,000 ppm of chloride. An appropriate chloride concentration criteria for drilling liquids is dependent upon a number of factors that will vary on a regional and local basis. These include not only the concentration of chloride in the drilling liquids but also the presence of other water in the environment, the availability of vegetated land to receive such material, the quantity of liquid that would be involved in any single application, and the number of repetitions of applications that are allowed in a given time period on the same tract of land. The variability of these factors calls for the development of a national criteria that would allow the numerical criteria for chloride concentrations to be determined on a local basis.

3. Burial - We applaud recognition contained within the technical criteria that solid or semi-solid material may be buried without a liner in a number of cases. After exploring many options

for a number of years in the Appalachians, the disposal technique of choice to both operators and regulatory agencies is the closure of pits with solids and semi-solids in place. As can be seen in the West Virginia permit accompanying Mr. Yates May 1, 1989 memorandum, this technique requires pit contents to be adequately covered and reclaimed to assure that it does not oxidize when exposed to air. Where pits are closed with liners in place, sufficient moisture is retained in the pit to make it very difficult to successfully reclaim the pit. As with liquids, chloride concentrations considerably in excess of 3,000 ppm TDS can be allowed in the material that is buried. We urge that the final numerical criteria for chlorides in this application be deferred to local regulation.

4. Pit Closure - The manner in which a pit is closed and reclaimed is particularly site specific. We applaud the efforts of the Technical Committee to keep these requirements as general as possible. With respect to the establishment of a mandatory time period within which a pit must be closed, consideration should be given to the addition of a provision that would allow for an extension of the closure permit for a good cause.

5. Road Spreading - The proposed criteria properly recognizes that produced waters may be road spread either for dust suppression or for skid control. The principal value of produced water for skid control is its chloride content. We believe it is

appropriate, therefore, to set a criteria for this practice which defers to local regulatory approval. With respect to road spreading for dust suppression, however, the chloride content of produced water should not be limited to 3,000 ppm TDS. One of the principal values for produced water for dust suppression is the sodium or calcium chloride content of the material. This is a matter which has been carefully studied by Moody and Associates, Inc. under contract with Pennsylvania Natural Gas Associates. In a December 1984 report entitled "The Feasibility of Utilizing Production and Other Oil and Gas Well Palliatives and Deicers," Moody stated in part that

Although wetting a road surface will result in short term dust control, only through the application of a hygroscopic material such as sodium chloride, will the surface remain damp for extended periods of time.

Accordingly, the establishment of the chloride content for produced waters used in dust suppression should be deferred to establishment by the local regulatory agency involved.

B. Pits.

1. Consolidated Permitting - We strongly support the proposal that permitting for pits be conducted for the most part "by-rule" or in conjunction with the issuance of operational facility or other environmental permits. Wherever possible, we believe that permitting should be consolidated into a closely coordinated function. Indeed, in many of the Appalachian states,

pits are already permitted as a part of the permitting for construction of the well itself.

2. Groundwater - Pit construction requirements should be clarified to make it clear that the construction requirement is applicable where groundwater is of sufficient quality and capacity to be capable of being a meaningful drinking water source. Insignificant amounts of groundwater having little or no potential as a drinking water supply need not be protected at the same level as would be the case with more significant supplies. If contact between the pit bottom and groundwater is unavoidable, such as may be the case with wetlands, we support the proposed criteria that provisions should be made to assure no significant impact on groundwater. We also urge that state and local authorities make a determination as to the need for any study of groundwater.

3. Separate Pits - Throughout much of Appalachia, it is very difficult, if not impossible, to construct multiple pits on a drilling location. This is largely due to the mountainous terrain and the significant amount of construction that is necessary for the creation of drilling sites. Moreover, we are concerned that no construction requirement should impose on an operator the obligation to "isolate" any particular type of fluid. Instead, we urge that this provision be revised in a way that would place the responsibility in state or local regulatory agencies to establish regulatory requirements that would require these fluids to be "properly handled."

4. Fencing and Caging - Fencing and caging of a pit may or may not be appropriate depending upon site-specific circumstances. Any fencing of a pit should be required only as needed to prevent vandalism or inadvertent livestock intrusion. We encourage the pit construction criteria to be revised to allow flexibility to individual states to establish such site-specific requirements.

5. Waste Segregation - The proposal to restrict the types of waste that can be handled in reserve pits is a matter of concern because a specific TDS limit is established. We believe it appropriate for individual states to set such a restriction, and we urge that it be deleted from any national criteria.

6. Operator Inspections - As an alternative to the proposed criteria that an operator conduct "inspections" to insure that pits meet all operating requirements, it is urged that such a criteria be deleted in favor of making compliance the responsibility of the operator without specifying how that will be achieved. To require inspections, particularly with any specificity, would be an unreasonable interference with the operators prerogatives.

7. Workover Pits - Repeating a comment advanced earlier with respect to drilling pits, the establishment of a liner requirement that is tied to any specific TDS concentration should be deferred to state regulation.

8. Percolation Pits - With respect to percolation pits, we likewise offer the view that the establishment of a specific TDS requirement as part of a national criteria is inappropriate. We urge again that this specific matter be determined at the state level.

C. Commercial Facilities.

1. Waste Description - We share the view expressed in the proposed criteria that an operator be obligated only to provide a generic description of the waste material to be sent to a commercial facility. It would be extremely burdensome for the operator to be required to perform detailed analytical work on the waste material. That kind of burden would provide a significant disincentive to an operator's interest in using commercial facilities.

2. Construction Requirements - The criteria for permitting seems to contemplate a description in the permitting process of how certain facilities are built. Among these facilities are tanks, which, in Appalachia are nearly always prefabricated. The specification of construction requirements should, therefore, be restricted to those items that are field constructed.

3. Financial Capability - We applaud the criteria that would tie the financial capability of an operator to the potential for environmental liability to be incurred at a particular operation.

4. Inspections - The requirement for inspections seems to be directed at state regulators and "operators who use the facility." We assume this quoted language is meant to apply to the operator of the commercial facility rather than the oil and gas operator that may deliver material to the facility for processing. We urge that this language be modified to eliminate any possible interpretation that a user of the facility would have some obligation to inspect it.

5. Hauler Certification - While we believe it to be a good idea to require licenses or certification for commercial transporters of waste material to commercial facilities, we do not believe that it is justifiable to require a certification or license for the individual operator who may be hauling his own material to a commercial facility. We urge that this provision be limited to the certification or licensing of commercial haulers only.

6. Waste Tracking System - We are concerned that the waste tracking system proposed in the criteria is overly burdensome. The system being described as one more nearly that used in the tracking of hazardous waste under the federal Resource Conservation and Recovery Act. We believe that it is desirable to have a system for the tracking of waste but suggest that there are a variety of ways in which this can be handled. For example, it is not unusual for operators to file periodic reports with regulatory agencies identifying the amount of material they have

generated and the manner in which that material was disposed. States and local authorities should be given discretion to determine the precise nature of any waste tracking system that is to be employed.

Respectfully submitted this 12th day of May, 1989.

INDEPENDENT OIL AND GAS ASSOCIATION OF NEW YORK
INDEPENDENT OIL AND GAS ASSOCIATION OF WEST VIRGINIA
KENTUCKY OIL AND GAS ASSOCIATION
OHIO OIL AND GAS ASSOCIATION
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Governor of Wyoming

August 14, 1989

W. TIMOTHY DOWD
Executive Director

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AUG 21 1989

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Re: Draft Report on Waste Management Practices and Program
Assessment on Alaska's North Slope - June 1989

Dear Bob:

In response to EPA's memorandum on June 9, 1989, the IOCC's Council on Regulatory Needs is pleased to offer comments on this draft report. Specifically, EPA has requested comment on two aspects of the report. The first is a request for comment on the factual accuracy of the information and observations made in the report. The second is a request for comment on the report as a protocol for other reports related to other geographic areas. This letter will offer comment on the second of these issues and on the additional matter of IOCC's role in the general review of the factual information contained in these reports and in investigating and responding to the several specific questions which the draft report refers to the IOCC. Attached you will find comments from Council members, some of which address the factual accuracy. Also attached is a copy of Governor Sinner's North Slope field trip report where specific sites are referenced.

Overall, we are pleased with the significant improvement in the format of the report from the draft of the report which accompanied Mr. Quinn's memorandum of March 6, 1989. The changes which have been made to the report address many of the comments and recommendations that were included in our letter to you of April 25, 1989. In that letter, we urged that the report more carefully catalog state program deficiencies so that it might be made easier to determine whether those deficiencies would need to be addressed by statutory changes, regulatory changes, improvements in enforcement, or a combination of these items. We also urged that the major findings of the report be supported by specific references to the text of the report and that the report contain the position of the state with respect to the report's principal findings. While the latest draft of the report does not contain the state's position, the general reorganization of the report addresses many of our concerns.

Mr. Robert J. Tonetti
Page 2
August 14, 1989

Our review of the most recent draft report does, however, indicate certain additional matters that we would urge EPA to consider in advance of the finalization of the report. These include:

1. The report should be limited to oil and gas drilling and production wastes that are "exempt" from RCRA Subtitle C regulation, and at a minimum, address exempt and nonexempt wastes in separate sections of the report. It is our understanding that the principal purpose of this report and the principal purpose of IOCC's involvement with EPA under its grant program is the determination of whether further regulatory controls or program modifications are appropriate with respect to exempt wastes. Much of the draft report focuses on nonexempt wastes which are either outside the scope of the study or secondary issues in the study. Your attention is called to the following pages of the draft report illustrating how the report addresses nonexempt wastes: 3-22 (heat exchanger bundle cleaning sludge wastes are RCRA hazardous wastes); 3-69 (gravel removed from Arctic Coiled Tubing Shop building "may have been RCRA Subtitle C hazardous waste"); 4-1 (cause of damage appears to be discharged by service companies); 4-4 (disposal by service companies of oil wastes are subject to RCRA Subtitle C requirements); and 4-5 (service companies exhibited poor housekeeping procedures). To enable all interested parties to focus on the regulatory program impacting on exempt wastes, we urge that the final report separate exempt wastes from nonexempt wastes for discussion and conclusion. In the EPA's Regulatory Determination on Waste From the Exploration, Development, and Production of Crude Oil, Natural Gas, and Geothermal Energy, exempt wastes were defined as:

Section 3001(b)(2)(A) exempts produced water, drilling fluids, and "other wastes associated" with the exploration, development, and production activities. These are general terms that do not identify all of the specific waste streams to be exempted and studied. For study purposes, EPA broadly defined the scope of the exemption for oil, gas, and geothermal energy wastes to include not only produced waters and drilling fluids, but also related wastes (referred to herein as "associated wastes"), generated during the exploration, development, and production of crude oil, natural gas, and geothermal energy resources. The Agency excluded from its study those wastes not uniquely associated with exploration, development, and production of crude oil and natural gas which are not exempt from Subtitle C regulation (e.g., used batteries and waste solvents).

For geothermal energy, the definition of drilling-related wastes was identical to that of crude oil and natural gas wastes. Exempt wastes unique to geothermal energy production operations included: waste streams produced from materials passing through the turbine in dry-steam power generation;

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Mr. Robert J. Tonetti
Page 3
August 14, 1989

waste streams resulting from a geothermal energy fluid or gas that passed through the turbine in flashed-steam and binary power plants; waste streams resulting from the geothermal energy products passing through only the heat exchanger in binary operations or through the flash separator in the flash process; and most direct use waste streams. A more detailed description of the scope of the exemption and study appears in section IV.D. below.

2. We continue to believe that it is important for the state's position with respect to these reports to be articulated in a meaningful way. We recognize the logistical problems that would be attendant with including that position as a separate section within this report but believe that the report itself should establish a mechanism by which the states would be allowed to submit comments on the report which would be followed by EPA's response. We urge that the final report either take specific account of any comments which the State of Alaska would file with respect to the June 1989 draft and that the final report indicate that some later document will be issued by EPA addressing any comments that would be filed by the State of Alaska. Action of this type is needed not only to deal with General questions related to resources and enforcement but also to focus on specific questions raised by the report, i.e., 3-19 (inconsistent enforcement of state requirements).
3. The IOCC is prepared to undertake further consideration of the several issues that EPA has identified in its draft report (4-11 - 4-13). While not contained on the face of the draft report, we are proceeding to address these issues within the overall time frame of our grant with EPA. Accordingly, it is not anticipated that we would have substantive responses to the identified issues in time for the results to be included in the final North Slope report. It has been quite difficult for Council members to spend the required time studying the report and providing comment in such a short time-frame. For future reports, we would ask the EPA to allow the Council at least 90 days to make comment. In making our recommendations, we expect to be able to take account of two factors which the draft report indicates were not addressed by EPA, i.e., effects on human health and the environment of observed waste management practices and an analysis of the benefits and economic consequences of potential regulatory changes.

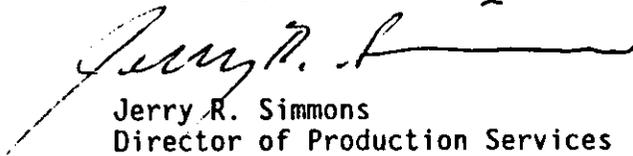
In summary, the latest draft of this report reflects a material improvement in the report. We believe that a final report which addresses the comments that are raised in this letter will be extremely beneficial to everyone concerned in assessing the management of oil and gas drilling and production wastes on Alaska's North Slope and will provide an appropriate format for conducting similar assessments in other oil and gas producing states. We note from a review of the June 9, 1989 memorandum of Ms. Lowrance that the agency is currently working on reports for Alaska's Kenai region, as well as the States of Ohio,

Mr. Robert J. Tonetti
Page 4
August 14, 1989

Arkansas, and Louisiana. We strongly encourage EPA not only to complete these additional reports but also to continue with its efforts to prepare similar reports on other major oil and gas producing states.

We hope you will find these comments to be helpful in preparing your final report. We look forward to continuing the meaningful and substantive relationship that has developed between IOCC and EPA on this important issue.

Sincerely,



Jerry R. Simmons
Director of Production Services

JRS:bjh

cc: Governor Mike Sullivan
Governor Steve Cowper
Governor George A. Sinner
Governor Garrey Carruthers
Ms. Lennie Gorsuch
Mr. J. Patrick Batchelor
Mr. William R. Bryson
IOCC Council on Regulatory Needs Members

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Governor George Sinner
Co-Chairman IOCC Council on Regulatory Needs
Site Visit to Alaska North Slope
July, 1989

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OIL CONSERVATION DIV.
SANTA FE

Governor Sinner was accompanied by: Mr. William R. Bryson, Intergovernmental Coordinator, Kansas Corporation Commission and Chairman of IOCC Council Technical Committees; Mr. Jerry R. Simmons, IOCC Director of Production Services and IOCC/EPA Project Director; Jim Yeager, ARCO Alaska Inc.; Steve Taylor, BP Production Co.; Jim Collins, ARCO Oil and Gas Co.; Kevin Myers, ARCO Alaska Inc.; and Jo English, ARCO Alaska Co.

ARCO & BP personnel had been supplied with a list of sites Governor Sinner wanted to tour. The sites were chosen from the EPA's Draft Report on North Slope Waste Management dated June, 1989.

Wednesday, July 12, 1989

Arrived at ARCO Airstrip late afternoon. First site visit was the ARCO Crude Oil Topping Unit at Prudhoe Bay. It appeared at first that portions of the berm surrounding the large storage tank were saturated with oil. Industry personnel told us this was merely melt water that had "wicked" up into the dirt and gravel. Governor Sinner found by disturbing the dirt and placing one's hand into the wet gravel there was no odor, no oily or petroleum feel, and that within a matter of moments would dry, all of which indicates the dark color would more than likely be water. As for the rest of this facility, we were told it is regulated like a refinery under RCRA Subtitle C which would exclude it from exploration and production (E&P) waste, and is therefore beyond the scope of our program. We would add that this facility was very clean and well maintained.

The remainder of Wednesday evening was spent receiving a briefing by industry personnel on waste management on the North Slope and what they have planned for the future.

Thursday, July 13, 1989

Toured North Slope Borough Oxbow landfill and oily waste pit: Oxbow is an active municipal landfill not an E&P waste issue. It is our understanding that the Oxbow oily waste pit is being closed and that all permit requests for a new facility have been denied.

ARCO's Drillsite 4: Typical North Slope production facility. A small diesel spill had occurred on the pad and oil had been reported on the pits. Spill clean-up practices and testing and monitoring on gravel pad appeared to be more than adequate. Diesel was isolated and cleaned up. No evidence of oil on pits.

Pad C Hazardous Waste Storage: Not E&P waste management issue. Pad C is regulated under RCRA Subtitle C, but pad appeared extremely well managed.

Santa Fe Drum Cleaning Facility: This facility should not be considered an E&P waste management operation. We would assume that RCRA Subtitle C hazardous waste regulations would apply.

Standard's G Pad Tour: The EPA reported oil on pit and a leaking berm that caused damage to the surrounding tundra. The pit had been reconstructed and had no oil visible to our group. The area of dead or discolored tundra more likely resulted from salt water spill or snow removal location. None the less it will be reclaimed.

Gathering Center 3: Oil, gas and produced water are separated at this facility. Crude is placed in production line, water and gas are reinjected to maintain field pressures. Facility looked clean and adequate steps were being used to prevent leaks and spills.

ARCO Drillsite 14: Pad 14 is a typical oil and gas production facility with the exception of a pigging pit. The pad is very clean. All pits appear not to be leaking, and the lined pigging pit is intact. This should be referred to as an example of how things are being done right.

We briefly toured the Pingut Pit. This is an abandoned pit that has been closed, and has been "frozen back" with the Alaska Department of Environmental Control (ADEC) approval.

Pad 3 Oily Waste Facility: This facility accepts oily wastes and separates the liquids and solids. Liquids are injected into on-site Class II permitted disposal wells while the solids are placed in permitted lined pit. We found the operation to be quite efficient though better housekeeping practices are in order. The lined pit appears to be maintaining its integrity but some large concrete blocks that had been placed in the pit could cause rips in the liner. A monitoring system should be placed under and around this pit. It also appears that some leaks or spills have affected the tundra in places around Pad 3. We were told this would be reclaimed. Total areal extent of discolored tundra at Pad 3 might be 1/4 an acre.

Tour Endicott Production and Drilling Facilities: this area represents some of the newest practices on the North Slope. All waste systems are basically "closed" which contains the waste stream to a very controlled area. The operator disposes of drilling muds to the Arctic Ocean under an NPDES permit.

Our last stop was the Deadhorse community: it is our view that these service company facilities do not belong in a report on E&P waste management. The service companies facilities in some cases should be RCRA Subtitle C regulated, but in any event would not fit the EPA's narrow definition of E&P wastes. However, through local, state, federal, and industry cooperation, these areas could and should be cleaned up . . . an adequate bond system for North Slope Companies should be put in place to insure that costly cleanup of abandoned properties can be accomplished.

Conclusions and Comments

First, in the above report, it is clear that the industry on the North Slope is doing an admirable job in a unique environment. While these facilities are producing 1.5 million barrels of oil daily (about 1/4 of total domestic production), we found the industry personnel very knowledgeable and willing to cooperate on any problem if given the opportunity. It also looks as though where real E&P problems were identified in the contractor visits, measures have been taken to correct the situation.

Given the climate of what looks to be over regulating the North Slope (something like 26 permits from 11 agencies for a gravel pad construction), any production is a surprise.

We have heard of inspection and enforcement problems on the North Slope. We also heard that the Alaska Department of Environmental Control presently employees some 300 people. Other states have similar or smaller agencies and in some cases have over 100,000 producing wells vs Alaska's 1,200. A review of different agencies involvement in North Slope activities is in order and a lead agency should be recognized with the proper legal authority, (and competent, properly educated and trained personnel) to oversee all operations, permitting, design, inspection, and enforcement under one roof. Possibly, Alaska's Oil and Gas Agency should take the lead as is the case in most major producing states.

From our observations, we felt that in most any city in the U.S. on any given day, more oil and oily waste would be spilled on any back street than we saw in all of the operations at Prudhoe, Kuparuk, Endicott, and Lisburne combined.

We conclude E&P waste management practices on the North Slope are exemplary. The issues of greatest concern on the North Slope operation should shift from E&P waste to abandonment and clean-up. Three main points seem to be most obvious: 1) maintain adequate pipeline integrity and maintenance. This includes all North Slope pipelines; 2) A plan to clean-up abandoned facilities should be worked out among the state, local, federal agencies, and industry. Future industry and service company plans should include bonds, escrow accounts or some assurance that funds are available to clean up once vacated; and 3) present operations should also include long-term clean-up plans. The present profits should provide an account sufficient to remove pipelines, equipment, facilities, etc. and reclamation of the area, so that when the North Slope is no longer productive, our grandchildren will have the funds available for clean-up.

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