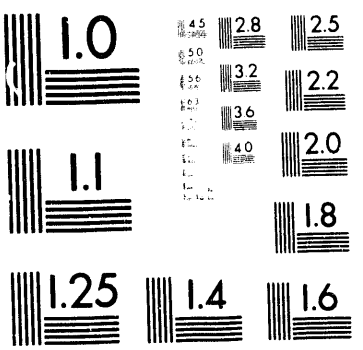
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# IOGCC/DOE OIL AND GAS ENVIRONMENTAL WORKSHOP


## DISCLAIMER



**October 10-11, 1991**
**Bakersfield, California**

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## INTRODUCTION

The Interstate Oil and Gas Compact Commission (IOGCC) in cooperation with U.S. Department of Energy (DOE) has developed a workshop format to allow state regulatory officials and industry representatives the opportunity to participate in frank and open discussions on issues of environmental regulatory compliance. The purpose of providing this forum is to assist both groups in identifying the key barriers to the economic recoverability of domestic oil and gas resources while adequately protecting human health and the environment.

The IOGCC and DOE staff worked with key state and industry representatives to develop a list of appropriate regulatory and industry representatives to be invited to participate. These same industry and regulatory representatives also provided a prioritized list of topics to be discussed at this workshop. W. Timothy Dowd, IOGCC Executive Director, and Nancy Johnson, U.S. DOE, co-chaired the workshop and asked certain individuals to lead the discussion on specific topics.

After the topic leader set out the issue, views of those present were solicited. In almost every case, both the industry representatives and the regulatory personnel spoke with candor in discussing the problems. Common points of discussion for each topic were: (1) conflicting state and federal regulations; (2) conflicting regulations or permit requirements established by different state agencies; (3) increasing compliance costs; and (4) regulatory constraints that will result in "no net growth" in California oil and gas production and more likely a net decrease.

This report contains a copy of the written presentation for each topic as well as a summary of the participants discussion.

## PARTICIPANTS

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## DISCUSSION TOPICS

## WASTE AND WATER

### RCRA Reauthorization

### I. Presentation

In 1980 amendments to the Resource Conservation and Recovery Act (RCRA), wastes from oil and gas exploration and production operations were exempted from being regulated as hazardous wastes under the Subtitle C federal hazardous waste management program. The Environmental Protection Agency (EPA) was directed to study these wastes and recommend appropriate action to Congress. The exemption is specifically for drilling muds, produced waters and other "associated" wastes.

EPA issued a report to Congress in December 1987. Major conclusions were that:

- Oil and gas wastes rarely pose significant threats to human health and the environment; and

- Regulation of oil and gas wastes under Subtitle C appears unnecessary and impractical, and would have a substantial impact of the U.S. economy.

In June 1988, after opportunity for public comment, EPA published a regulatory determination for oil and gas wastes which concluded that regulation under Subtitle C was not warranted, and existing state and federal programs (e.g., those under RCRA Subtitle D, the Clean Water Act and the Safe Drinking Water Act) are generally adequate to regulate these wastes. EPA pledged to work with states, through organizations such as the IOGCC, to improve state programs, if necessary, and develop tailored Subtitle D, federal standards for management of oil and gas waste.

Some environmental groups want the exemption for oil and gas wastes eliminated, and contend that these wastes should be regulated solely on the basis of their toxicity and hazards. At a minimum, this could entail the characterization of individual waste streams. Regardless of whether the exemption is maintained, Congress is considering more stringent requirements for Subtitle D solid waste management facilities.

### II. Discussion

Attendees were generally concerned that new legislation would result in increased compliance costs for oil and gas operations that would make many operations uneconomic; limit the discretion of states who regulate oil and gas wastes; and grant the

Environmental Protection Agency oversight authorities that could be abusive to states and industry.

## TEMPORARY ABANDONMENT AND IDLE WELLS

### I. Presentation

Thousands of wells throughout California have ceased production for technical or economic reasons but have not been permanently plugged. They vary widely in physical condition and geological setting, which affect their potential for both future production and environmental risk. Further, these wells represent a future liability either for operators or, in the case of wells whose operations are no longer in business--so-called "orphaned wells"--for the states.

There is a need to balance the considerations of maximizing recovery of oil and gas resources with environmental concerns associated with temporarily abandoned or idle wells. State regulators need to assess both the risks of and potential benefits from these wells and make a decision on plugging requirements based on that tradeoff. Priorities must be set for spending limited state resources. Operators may need assistance in demonstrating the future recovery potential of idle wells and the degree or lack of environmental risk.

### II. Discussion

The California Division of Oil & Gas (DOG) was complimented for its willingness to work with operators and use cost effective methods to implement the state's idle well program. This program addresses the long-term liability and proper management of idle wells. It is not intended to encourage premature abandonment but to ensure operators improve management of these wells to protect sources of groundwater and reduce future liability. It was noted that even the $100 annual well fee option would be difficult for some small producers to incur. There have been periodic legislative proposals to increase bonds and fees which neither the DOG nor the operators have endorsed. The need for vigilant opposition to increased fees was voiced. However, due to the current regulatory climate, operators were encouraged to come forth and support constructive proposals. The group felt that California's idle well program should be promoted in other states. Concerns were voiced about the Bureau of Land Management's (BLM) Proposed Operating Order No. 8 which contains requirements for plugged and abandoned wells which do not consider economics and may prompt premature abandonments. BLM noted that they were looking to the industry to clarify proposed definitions on idle and temporarily idled wells. Industry emphasized that the abandonment program should be based on economics and an operator's long-term commitment to abandon wells property.

BLM and the California DOG are hosting an oil and gas industry conference in Bakersfield on November 6 and 7, 1991. Order No. 8 and other issues will be discussed.

## SPILL PREVENTION CONTROL & COUNTERMEASURE PLANS (SPCC)

### I. Presentation

Oil exploration and production operations are subject to the federal SPCC regulations if there could be a discharge of oil into and onto waters of the United States. Likewise, California has similar regulations governing the waters of the state. Due to the geography of most California oilfields and the broad definition of waters of the United States and the state, most operators have taken a view that a discharge of any volume has the potential to reach protected waters and have prepared SPCC plans. At this time however, only offshore operators are required to file these plans with a regulatory agency. Onshore operators are only required to have an SPCC plan on file in the event of a discharge.

In conjunction with the oil pollution prevention rule at 40 CFR 112, the EPA has proposed that operators submit a copy of their SPCC plan for EPA review. Earlier this year, the Office of Management and Budget (OMB) suspended the EPA review of SPCC plans due to the difference in implementation cost data. The OMB believes that the EPA severely underestimated the costs to implement and comply with the review program. If the EPA can successfully defend the cost data figures, it plans to take final action on this issue in December 1991.

### II. Discussion

Concerns were expressed about pending EPA SPCC regulations which would require California operators to submit SPCC plans to EPA for review. The concern was not necessarily that plans had to be submitted for EPA review, but that review entailed facility inspections by EPA with the operator incurring the inspection expense. Spill prevention is not a problem from BLM's perspective and is an integral part of site security. The general consensus among those present was that the current program was sufficient and additional federal requirements are not necessary.

## STORMWATER RUNOFF / OIL SPILL CONTINGENCY PLAN

### I. Presentation

As an extension of the National Pollutant Discharge Elimination System (NPDES) the California State Water Resources Control Board (SWRCB) is preparing a statewide general permit for industrial stormwater discharges. To date, the SWRCB has not changed the effect of the program on oil and gas facilities.

In response to federal legislation and regulations, the California Department of Fish and Game (DF&G) has prepared an Oil Spill Contingency Plan for the state. Included in the plan are definitions of reportable spill events which are different from those used to determine if an oil and gas facility is required to file a stormwater permit application under the federal permitting program. Additionally, the definitions contained in the plan are different from existing California law.

### II. Discussion

Implementation of the federal stormwater runoff and SPCC programs is potentially complicated by the DF&G oil spill contingency plan. The scope of the California DF&G plan is exceedingly broad. State and federal definitions of reportable releases and spills differ. The SWRCB is developing a general permit for stormwater discharges. Various industry groups have submitted comments. Expectations were that EPA would extend a November 1991 deadline for meeting certain federal stormwater runoff requirements. The state is waiting for EPA to act before granting its own extension. Forms for notification have not been developed. Some questions were raised as to what will constitute a representative sample for oil and gas operations. Some oil field areas have no water table and/or limited rainfall and stormwater regulations are not germane. Some industry participants believe that EPA and the state should accept SPCC plans in lieu of stormwater plans. In any case, requirements which prompt reportable spills should be consistent between plans. Other industry recommendations included: (1) for stormwater, the state adopt the federal definition of reportable release into the statewide general permit and that best engineering practices by a certified engineer be an allowable option to strict sampling and permit requirements; (2) the California oil spill plan should be revised to make the definition of a reportable spill consistent with the federal definition and reduce the number of entities to which spills must be reported. It was suggested that discussion among DOG, DF&G, and industry be initiated to establish a threshold amount where only DOG is notified in the event of that size spill. This would help alleviate reporting for reporting's sake. There was also concern expressed that most operations would over time have reportable releases thereby subjecting them to permits and fees. One medium-sized California oil company estimated that it might have to pay up to $600,000 annually for fees. Any cost for response and remediation would be additional. Under proposed state and federal requirements, a permit would be required for facilities

with prior releases. Some participants characterize this as having a permit for permit's sake. This would be costly and may have limited environmental benefit.

## CALIFORNIA CHAPTER 15

### I. Presentation

The water quality impacts of discharges of waste in California are regulated by the SWRCB. In 1984, the SWRCB adopted new regulations pertaining to discharges of waste to land. The regulations (now referred to as Chapter 15) impose prescriptive construction, operating, and closure standards for new and existing waste management units.

Certain exemptions from the prescriptive standards were adopted by the SWRCB in 1984. An exemption for discharges of wastewater into evaporation ponds, percolation ponds, or subsurface leachfields was adopted in 1984. Facilities meeting the exemption criteria may be relieved from the requirements for lining impoundments, implementing monitoring programs, and extensive post-closure site maintenance.

### II. Discussion

There was concern that costly California Chapter 15 waste management unit construction operation and closure standards may apply to oilfield process sumps. Questions were also raised as to whether Chapter 15 would apply to impoundments even when discharges to these impoundments meet water quality discharge criteria. Key factors determining Chapter 15 applicability appear to be waste constituents and the classification of underlying groundwater. Regardless of water quality, the waters under many California oilfields are viewed as "municipal" water sources deserving a stringent level of protection. One recourse may be for operators to submit hydrogeologic data to the SWRCB requesting amendments to individual water basin plans. However, this may be cost prohibitive for individual operators. It has taken the operators in the Midway Sunset oilfield over nine years to assemble data on the groundwater resources underlying that field with costs up to $3 million dollars. Project completion is anticipated in late 1992 for the first quarter of 1993. Mr. Edward Heidig, Director of the State of California Department of Conservation, offered to formally meet with the regional water resources board to resolve certain issues of concern.

The applicability of Chapter 15 entails an annual permit fee. These fees may be the equivalent of two months of profit for a small oil and gas operator which could make small leases uneconomic. According to workshop participants, the regulatory fees

imposed on California oil and gas operations have increased substantially in recent years. This is due in part because of policies dictated by the state legislature. Chapter 15 fee schedules are currently being revised and operators were encouraged to comment. It was suggested that operators should pay the fee only under protest and that the state needs to go back to the drawing board to determine what waters should or should not be protected. One proposal was that money from fees should be used to define those areas where the groundwater warrants protection. In some cases, operators have been asked to pay fees for closed facilities. One option suggested by workshop participants would be for SWRCB to accept confirmation from DOG that closure has taken place. It was suggested that the Department of Conservation and the SWRCB work cooperatively to develop sump closure guidelines. The Western States Petroleum Association volunteered to be the catalyst to develop a generic sump closure plan acceptable to all parties. BLM has developed sump closure guidelines for operations on federal leases and plans were to discuss these at the November 6 and 7 conference. It was suggested that the BLM sump closure guidelines could also be incorporated in an overall generic sump closure plan acceptable to industry and regulatory entities.

## ENDANGERED SPECIES

### Habitat Conservation Plans

### I. Presentation

"Taking" of species listed as threatened or endangered under The Endangered Species Act of 1973 (ESA) is prohibited by Section 9. For projects which undergo Section 7 consultations, the taking ban is waived if the proponent complies with reasonable and prudent measures specified in the biological opinion that are designed to avoid, reduce, or offset the anticipated takings. For projects which do not trigger the interagency consultation process, which describes the vast majority of activities in the San Joaquin Valley, the U.S. Fish and Wildlife Service (USFWS) can issue an incidental taking permit in return for preparation and submittal of a Habitat Conservation Plan (HCP).

An HCP must specify the impact of the allowed level of taking, mitigation measures, alternatives considered, and other measures the Secretary may require. HCP's which cover large geographic areas containing diverse habitats and land uses are administratively complex to develop and implement, requiring much time, money and effort. Procedural check points include federal rulemaking, National Environmental Policy Act (NEPA) compliance, interagency consultation, consistency with state and local requirements, and necessary public involvement.

Most HCP's are based on the premise that allowing disturbance on a specified amount of endangered species habitat is appropriately compensated for by setting other lands aside for conservation purposes. Consequently, they result in constraints on private land use at least within areas managed to achieve conservation goals.

Despite their procedural complexities, HCP's offer a number of advantages from a private resource developer's perspective. First, they provide the only legally defensible authority to take protected species without a Section 7 exemption or other special permit. It is possible through comprehensive planning to avoid case-by-case environmental reviews and approvals. Binding obligations on agencies provide assurances that only those requirements set forth in a mitigation agreement to implement the HCP will be imposed for the life of the permit, often 25 years or more. Finally, if carefully crafted, the HCP can serve to address habitat issues for several species simultaneously.

Within The San Joaquin Valley, land uses for agriculture, water projects, urbanization, grazing, and mineral development compete with the habitat needs of endemic flora and fauna. Available habitat has been greatly restricted, leading to the state and federal wildlife agencies to list five animals and six plants as threatened or endangered in Kern County where petroleum operations are most extensive. To address concerns about conflicts between development interests and list species, Kern County has undertaken a comprehensive HCP process.

Kern County's HCP is unprecedented in scope and complexity and is a prime example of cooperative environmental management. It embraces many sensitive species, and covers a large area containing diverse biological communities. Land use is complex with many affected interests. Participants include agriculture, real estate, water management and petroleum interests, and an array of state and federal agencies, Kern County and two conservation groups.

The Kern County HCP process started with a Memorandum of Understanding among the various state and federal agencies which sets forth the membership of a steering committee to oversee development of the HCP, identifies lead state and federal agencies, describes the purpose and objectives of the HCP, presents a schedule for measuring progress, and envisions funding arrangements. The components of the overall program will include an HCP that meets regulatory criteria and standards, an endangered species element for adoption as part of the County General Plan, and an implementing agreement that serves as a "contract" among the affected parties. Compliance with both the California Environmental Quality Act and the NEPA will lead to the preparation of an Environmental Impact Report/Statement.

## II. Discussion

The Southern San Joaquin Valley where Kern County is located is the home for a number of species that are listed as endangered, e.g. the San Joaquin Kit Fox and the blunt nosed leopard lizard. To preclude the need for operators to seek individual habitat avoidance and mitigation plan approvals, the DOG, DF&G, USFWS, Kern County, BLM, and other agencies undertook a project to develop an area-wide habitat conservation plan which utilizes concepts such as upfront approvals and "land banking" in addition to other mitigation options. The plan has taken five years to develop and is nearing completion. Many participants were concerned that DF&G periodically proposes resorting to a piece-meal approval process. It was emphasized that continued agency commitment to this effort is imperative to the overall project success. The Department of Conservation volunteered to be a facilitator between state agencies if commitment levels became a concern. BLM endorses the habitat conservation plan and has proposed that the plan be integrated with BLM's Resource Management Plan. As BLM's plan will precede the Kern County HCP, industry emphasized the need for BLM to be sensitive to the direction and concepts as outlined in the HCP. Consistency between the plans was noted as being essential. It was also noted that the approval process for granting rights of way on BLM federal lands needs to be expedited as delays in land access are exceeding 12 to 18 months. The California DOG has requested support from the Department of Energy (DOE) for the Kern County project by providing funds for the purchase of habitat. Since 1980, DOG and Chevron have spent an estimated $10 million on an endangered species study. Governor Wilson has enacted a plan to reduce overlap of agencies so that they are not reactive regulations but a streamlined process that would achieve the ultimate goal of species protection and ensure biological diversity.

# RESOURCE MANAGEMENT PLAN

## I. Presentation

Two land use plans were developed for the Caliente Resource Area (South Sierra Foothills Management Framework Plan [MFP] in 1983 and the Coast/Valley Resource Management Plan [RMP] in 1984). The South Sierra Foothills MFP is known as a transitional MFP, and like the Coast/Valley RMP it was issue-driven but did not have an Environmental Impact Statement (EIS) prepared for it (except for livestock grazing and wilderness elements). The Coast/Valley RMP was developed with an EIS, which covered all elements of the plan. Both planning efforts were done to meet court orders resulting from the 1975 Bureau-wide grazing suit between the Bureau and the Natural Resources Defense Council (NRDC). Pending continuing analysis of ongoing monitoring, the grazing decisions made through the development of these land use plans will remain as the management direction for livestock grazing of the public lands in the Resource Area.

New developments/situations, such as the listing of additional threatened and endangered species, may institute a need to modify these decisions if monitoring depicts impacts to these species from livestock grazing. An RMP covering the entire Resource Area is needed to respond to new issues, address concerns stemming from Supplemental Program Guidance (SPG) which have been developed subsequent to the plan preparation, and provide complete compliance with the NEPA.

The goals for developing this Resource Management Plan are as follows:

- To bring forward from existing land use plans and activity plans appropriate management decisions which continue to be valid, and incorporate these decisions into the RMP.

- To provide managerial direction which will adequately direct and guide land use allocations and management actions for the variety of resource values and uses of the public land in the Resource Area.

- To provide a planning framework for evaluating the compatibility of unanticipated public needs and future demands for public lands and to address changing situations resulting from new laws, new Departmental regulations or Bureau policy.

- To provide managerial direction based on a sound foundation of data, which has been environmentally analyzed to fully meet the requirements of NEPA.

- To reflect the desires and concerns of the public by providing the opportunity for their participation in the planning process and plan implementation.

- To provide particular emphasis on protecting and enhancing the habitat of threatened and endangered species and in the development and management of the Carrizo Plain Natural Area.

- To foster an environment in which oil and gas exploration and development can take place in harmony with the management goals of other resource programs such as preservation of threatened and endangered species.

## II. Discussion

As stated in habitat protection, BLM endorses the habitat protection plan and has proposed that the plan be integrated with BLM's resource management plan. Most other

discussion on the Resource Management Plan dealt with the informative nature of this presentation.

## PERMIT REQUIREMENTS

### I. Presentation

As more oil and gas operations fall under regulatory requirements, the issue of permitting becomes increasingly complex. The oil and gas industry can potentially face up to five levels of government when working through a permit process: federal, state, regional, county, and municipal. While dealing with all five levels for a project is an extreme instance, activities as routine to the industry as drilling and pipeline installation often require different permits from the federal, state and county levels.

In addition to the economic burden that the various application and annual renewal fees can place on an operator, data acquisition for an application package can be of extreme cost. Another area of permitting that industry confronts when applying for a permit is that of time. Permit approval periods have lengthened, and are lengthening, as additional agencies become involved with the process. Time impact has also been found to be crucial when one level of government mandates an action that requires an approved permit by another level of government for project completion.

The permit process can include various applications not only for threatened and endangered species concerns but also such items as environmental impact reports, air pollution control, building permits, etc., to name but a few. As operations that are commonplace to the oilfield continue to fall under various permit requirements, the industry is having to deal with a growing number of regulatory agencies that are not interfaced.

### II. Discussion

During discussion on permit requirements dealing with endangered species, the following questions were raised about current permit requirements but no definite solutions were offered:

(1) Conflicts do not allow operations to move forward while waiting for permits to be issued;

(2) Permits are not issued in a timely manner;

(3) Is legislation required to streamline the permitting process; and

(4) How can Department of Conservation work better with Fish and Game to assist in streamlining this permit process.

## AIR

## ENVIRONMENTAL PROTECTION AGENCY OPERATING PERMIT PROGRAM

### I. Presentation

EPA is proposing new regulations requiring states to develop and submit to EPA, programs for issuing operating permits to major stationary sources (including major sources of hazardous air pollutants listed in Section 112), sources covered by new source performance standards (NSPS), sources covered by emissions standards for hazardous air pollutants pursuant to Section 112, and affected sources under the acid rain program.

Title V of the Clean Air Act (Act) Amendments of 1990 enacted on November 15, 1990, requires EPA to promulgate regulations within 12 months of enactment. Title V establishes time frames for developing and implementing the state permit programs. Within 3 years of enactment, states must submit proposed permit programs to EPA for approval. Sources subject to the program must submit complete permit applications within 1 year after the state program is approved by EPA or, where the state program is not approved, within 1 year after a program is promulgated by EPA.

Sources must obtain an operating permit addressing all applicable pollution control obligations under the state implementation plan (SIP) or federal implementation plan (FIP), the acid rain program, the air toxics program, or other applicable provisions of the Act (e.g., NSPS). Sources must also submit periodic reports to the state and EPA as appropriate concerning the extent of their compliance with permit obligations. The permit and compliance reports will be available to the public, subject to any applicable confidentiality protection procedures. The EPA anticipates that this program will provide more efficient implementation of the Act, including improved enforcement, enhanced State air program resources, and a streamlined process for revising air pollution control requirements.

### II. Discussion

Much of the state is non-attainment for ozone and carbon monoxide pending federal regulations. For non-attainment areas, the control of emissions from air toxics (e.g., benzene) and operation permits for stationary sources are anticipated to have a

major adverse impact on California oil and gas production. Concerns were voiced about the dual federal and state permitting systems, increased compliance costs, delays in permit decisions, decreased operational flexibility and permit fees. The Western States Petroleum Association is involved in promoting that a more reasonable integrated program be developed between the California Air Resource Board (CARB) and EPA that reduces duplication and increases program efficiency.

## CALIFORNIA CLEAN AIR ACT

### I. Purpose

The California Clean Air Act (CCAA) of 1988 is the most important and comprehensive state air quality legislation to be enacted in more than a decade. The Act establishes a clear legal mandate to achieve California's ambient air quality standards by the earliest practicable date. To meet that objective, the Act prescribes a number of emission reduction strategies and requires annual progress in cleaning up the air.

The centerpiece of the Act is an attainment planning framework. Local air pollution control districts in violation of state standards are to prepare plans for improving air quality within two years. The CARB will review and approve the plans, and will coordinate the statewide pollution reduction effort.

Under the Act, the CARB and districts share primary responsibility for improving air quality. Both regulatory agencies are to pursue new and better control strategies for the pollution sources subject to their respective jurisdictions. General purpose governments and transportation agencies have an important role as well. These bodies will assist districts in crafting the transportation and growth management portions of their attainment plans.

The Act expressly requires an attainment plan for each area which has been designated nonattainment for the state ozone ($O_3$), carbon monoxide (CO), sulfur dioxide ($SO_2$), or nitrogen dioxide ($NO_2$) standard. On June 9, 1989, the CARB established by regulation attainment, nonattainment, and unclassified designations for each air basin or subregion in California. These designations will determine the applicability of planning requirements.

Areas designated nonattainment for particulate matter ($PM_{10}$), sulfates, lead, hydrogen sulfide, or visibility are not expressly required to develop an attainment plan under the Act. However, those problems are not to be neglected. The Act requires attainment of all state standards by the earliest practical date. In addition, the state Health and Safety Code generally requires all nonattainment districts to take reasonable action to improve air quality and protect public health. To meet these broad mandates, districts

preparing attainment plans for ozone, CO, $NO_2$, or $SO_2$ could consider expanding those plans to include other pollutants of concern. Districts which are nonattainment for the second class of pollutants only -- e.g., $PM_{10}$ nonattainment areas -- should consider the value of consolidating their pollutant control strategies into an attainment plan.

## II. Discussion

The CCAA is the most comprehensive state air quality legislation to be enacted in more than a decade. The act establishes a legal mandate to achieve California's ambient air quality objectives by the earliest practical date. New regulations and local air pollution control district plans are ratcheting down on the allowable emissions from oilfield operations. New emissions even from temporarily idled oil field equipment must be offset. Participants believed that they would like a cumulative impact study to see if benefits and costs of new regulations are worthwhile. The Department of Conservation will consider being a lead in formulating such a study. They also noted the "no net" increase in emission and no movement or bringing in of new equipment in actuality represents no growth and finally recognized the great concern about the difficulties in obtaining offset emissions credits.

# SAN JOAQUIN VALLEY UNIFIED APCD AIR QUALITY ATTAINMENT PLAN

## I. Presentation

The purpose of this Air Quality Attainment Plan (AQAP or Plan) is to bring the San Joaquin Valley Air Basin (SJVAB) into compliance with the California Ambient Air Quality Standards (CAAQS) for ozone ($O_3$) and carbon monoxide (CO) by the earliest practicable date. The Plan has been prepared to satisfy the requirements of the California Clean Air Act (CAA) and its amendments to the California Health and Safety Code.

The San Joaquin Valley Air Basin is comprised of eight counties: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare and Kern. These counties represent approximately 16% of California's geographic area and have a population of approximately 2.7 million persons. The SJVAB has mountain ranges on the east, west, and south, and is dominated by relatively flat valley floor. Significant contributors to the SJVAB's air quality problems are the regions geographic location and topographic features, climatic conditions, population growth, and economic activities.

The work force in the SJVAB is anticipated to grow from 1,043,896 in 1990 to 1,405,910 in 2000. According to Department of Finance figures, housing growth is projected to increase from 940,273 in 1990 to 1,230,295 in 2000 and population growth

2,679,4000 (1990) TO 3,495,304 (2000). Emissions of certain pollutants and precursors are expected to increase because of population growth.

The SJVAB is a nonattainment area for ozone and fine particulate matter ($PM_{10}$). The major metropolitan areas for Fresno, Modesto, and Stockton are designated by CARB as nonattainment "transitional". (The CCAA does not mandate addressing the $PM_{10}$ issue in this Plan; however, under the federal Clean Air Act a substantial planning effort to minimize these emissions is required and will be forthcoming shortly.)

Because the San Joaquin Valley cannot predict attainment and maintenance of the state standard until after December 31, 1997 for ozone or carbon monoxide, the San Joaquin Valley has been classified as "severe". As a severe nonattainment area, the San Joaquin Valley is subject to the most stringent requirements in the CCAA and will have to apply all feasible measures to reduce emissions. The CARB has determined that the San Joaquin Valley is both a receptor and contributor of transported air pollutants. The San Joaquin Valley has been identified by the CARB as a receptor of air pollution from the San Francisco Bay and Broader Sacramento Areas and as a transporter of air pollution to the Broader Sacramento Area and the Southeast Desert, and Great Basin Valley. Since the SJVAB has been determined to be a transporter of air pollution to other areas, addition transport mitigation/emission control requirements are mandated by the CCAA.

## II. Discussion

In the San Joaquin Valley there can be no net increase in emissions from new or modified sources. Existing sources must apply best available retrofit control technology to 75 percent of all existing operations. These retrofit costs will be substantial over the next ten years. Concern was expressed over the equity of requiring more emission reductions from oil and gas operations then these operations contribute to air emissions. For instance, oil and gas operations contribute 53 and 28 percent of the valley's current hydrocarbon and nitroxide emissions respectively and are targeted to achieve 89 and 72 percent of the reductions respectively. In addition, proposed $PM_{10}$ regulations will require facilities to propose ways to reduce dust emissions from 25-75 percent over three years through measures such as paving oilfield roads. It was agreed that the most imposing single environmental issue facing California oil and gas development appears to be air quality regulations.

## SUMMARY

All participants agreed that with the constantly changing environmental rules and regulations dialogue and cooperation among state and federal regulatory personnel and

the industry is most important. Several areas were identified where state, local and federal agencies agreed to work more closely to avoid permitting delays and confusion over jurisdiction. Since this meeting, the Department of Energy has initiated two environmental studies on California oil and gas production and the Department of Conservation, in cooperation with industry, has undertaken a study of the impact that state and federal regulations have on California on-shore oil and gas production.

As stated earlier the most imposing single environmental issue facing future California oil and gas development appears to be air quality regulations. Though no definite resolution to regulatory and industry concerns were reached regarding air quality in California, the heightened awareness and need for better understanding of these very complicated issues and their impact on current and future California oil production was recognized. Generally, most participants agreed that open dialogue of this nature would be most valuable if maintained on at least an annual basis.

## DESCRIPTION OF ABBREVIATIONS

| | |
|---|---|
| AQAP | Air Quality Attainment Plan |
| BLM | Bureau of Land Management |
| CAAQS | California Ambient Air Quality Standards |
| CARB | California Air Resource Board |
| CCAA | California Clean Air Act |
| DF&G | Department of Fish and Game |
| DOE | Department of Energy |
| DOG | California Division of Oil & Gas |
| EIS | Environmental Impact Statement |
| EPA | Environmental Protection Agency |
| ESA | Endangered Species Act |
| FID | Federal Implementation Plan |
| HCP | Habitat Conservation Plan |
| IOGCC | Interstate Oil and Gas Compact Commission |
| MFP | Management Framework Plan |
| NEPA | National Environmental Policy Act |
| NPDES | National Pollutant Discharge Elimination System |
| NRDC | Natural Resources Petroleum Council |
| NSPS | New Source Performance Standards |
| OMB | Office of Management and Budget |
| PM | Particulate Matter |
| RCRA | Resource Conservation and Recovery Act |
| RMP | Resource Management Plan |
| SIP | State Implementation Plan |
| SJVAB | San Joaquin Valley Air Basin |
| SPG | Supplemental Program Guidance |
| SWRCB | State Water Resources Control Board |
| SPCC | Spill Prevention Control and Countermeasure |
| USFWS | U.S. Fish and Wildlife Service |

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