

INFORMATIONAL
CALENDAR ITEM

MINUTE ITEM
This Calendar Item No. C46
was submitted for information
only, no action thereon
being necessary.

C 4 6

A)
S) N/A

09/23/92
W 24521
W 40658
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STATUS OF REVIEW OF SEWER OUTFALLS
ON STATE LANDS

PARTY:

State Lands Commission
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Sacramento, California 95814

BACKGROUND:

On February 28, 1992, in the wake of the failure of the San Diego sewer outfall and the resultant spill of raw sewage into the Pacific Ocean, staff sent inquiries to approximately sixty Commission lessees whose leases authorized the occupation of State-owned lands by sewer outfalls.

The inquiry asked for information about design, history, and monitoring of the outfalls. All but a few of the lessees contacted have responded. Many have long since abandoned their outfalls; some had merged with other agencies and were using land based facilities.

Approximately forty-nine lessees continue to operate outfalls on State-owned lands. Their submittals were sent to the Mineral Resources Management Division (MRMD) for review and analysis. The MRMD staff report, detailing their findings and recommendations, is attached as Exhibit "A". Briefly, MRMD staff found that, of those who responded to our inquiry, fifty-five percent (55%) had not inspected their outfalls in the past two years. Thirty-one percent (31%) have experienced leaks in the past. Only nineteen percent (19%) have contingency plans for leaks or upsets. MRMD staff has concluded that there is a substantial need for a thorough evaluation of the design adequacy and present condition of outfalls on State lands and recommends

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increased oversight of inspection, maintenance, and repair programs. To this end, MRMD has begun an engineering survey of all such outfalls, with the ultimate objective to assure that outfalls on State lands meet standards similar to those set for oil and gas pipelines.

Although budget constraints will hamper staff's ability to accomplish this goal in the near future, steps are being taken to reduce risk of outfall failure and the resultant damage to the State's resources. First, as outfall leases come up for renewal, amendment, or termination, conditions are imposed regarding design requirements, systems safety, construction methodology, operating procedures, monitoring, and spill contingency plans. In addition, the Land Management Division is working with MRMD to identify sewer and industrial outfalls which occupy State lands without Commission authorization. As such facilities are identified, staff will contact the operators and inform them of the need to comply with Commission permitting requirements.

Staff will continue to update the Commission as new information becomes available.

EXHIBITS:

- A. Statewide Engineering Outfall Survey.

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August 27, 1992

Statewide Engineering Outfall Survey

Recent major sewer outfall failures on lands leased to local entities have resulted in significant harm to the environment, violations of lease terms, and curtailment of public enjoyment of beach areas. There are over sixty active municipal outfalls on leased lands along the coast and San Francisco Bay, plus a large number of industrial outfalls that have the potential to discharge toxic chemicals. The threat of additional damage from these facilities accentuates the need for a thorough evaluation of their design adequacy and present condition. In addition, the recent damage indicates that increased oversight of inspection, maintenance, and repair programs is appropriate.

Recent months have also produced an explosion of applications for construction of new and modification of existing outfalls, as municipalities and industries strive to comply with the federal Clean Water Act or California Ocean Plan requirements. Although other agencies are evaluating water and air quality impacts of these proposals, no other agency is evaluating engineering design, system safety, construction practices, operating procedures, and pollution prevention issues. The LA Times, in a July 29, 1992, article on toxic substances legislation, reports that, "A recent Environmental Protection Agency report states that 54% of large industrial users are not in compliance with federal standards for waste discharges into sewer systems." Since these facilities reside on state leased lands, it is the Commission's responsibility to ensure that these elements of the projects meet current standards of adequacy.

In response to concern about the quality of engineering design, operational, inspection, and maintenance programs, and environmental protection measures of outfalls installed in state waters, Mineral Resources Management Division has launched an engineering survey of outfalls in state waters. This investigation will include an evaluation of the engineering design, safety systems, and operating, maintenance, and effluent quality monitoring practices of all outfalls discharging via state leases.

As an initial task of this survey, a database of all known outfalls in the state has been constructed from lease records provided by Land Management Division and National Pollution Discharge Elimination System permit information obtained from the State Water Resources Control Board. NPDES permits are a federal requirement for discharge of waste streams into navigable waters. These permits specify allowable substances and limit concentrations and amounts of discharged pollutants. They do not address system safety, pollution prevention, or inspection/maintenance/repair issues, however. Responses to questionnaires sent to 66 sewer outfall lessees have been incorporated into the database. This effort enables an initial estimate of the size and severity of the problem to be made.

Preliminary data extracted from the database indicate that there are approximately 104 sewer outfalls in the state that discharge more than one million gallons per day into

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navigable waters. Of 49 respondents to questionnaires sent to 66 state leaseholders, 55% had not inspected their outfalls in the last two years. Thirty-one per cent have experienced leaks in the past. Only nineteen per cent have written contingency plans for leaks or upsets. Many lessees have limited records of damage history, safety procedures, or engineering design data.

In addition to the municipal sewer outfalls, there are approximately 153 industrial waste outfalls with flows greater than one-half million gallons per day discharging into navigable waters. Effluent composition from these outfalls includes waste products from sulfuric acid regeneration plants, caustic solution facilities, pulp mills, and refineries. The safety and environmental impact of leaks or plant upsets at these outfalls has not been quantified at this time. Two outfalls are involved in EPA suits citing public health threats from existing outfall discharge, however. In the last three months, both of these have experienced plant failures that resulted in discharge of raw product through the outfall.

The overall objective of the program is to ensure that the engineering design, operational risk, inspection, maintenance, repair programs, safety procedures, and pollution prevention precautions incorporated into municipal and industrial outfalls are consistent with those presently required by the Commission for oil and gas pipelines on leased lands. The hazard potential of the outfalls will be taken into consideration in evaluating these items. The following are steps toward realizing this goal.

1. Review engineering design and operational procedures of all existing outfalls on leased lands. Analyze accident risk, consequences, and responses. Evaluate upgrade and repair proposals to achieve risk/consequence parity with existing regulations for oil and gas pipelines.
2. Perform same duties for outfall modification and new construction proposals, including geotechnical and structural stability analyses.
3. Recommend engineering requirements for new or amended outfall leases to ensure risk/consequence parity with oil and gas pipelines.

4. Monitor outfall operations, inspections, and repairs to ensure compliance with lease requirements and Commission regulations, and encourage best achievable protection of public safety and state resources.

Task 1 can be accomplished with existing engineering staff. Completion of tasks 2 through 4 will require additional manpower.

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