

MINUTE ITEM

This Calendar Item No. 46  
was approved as Minute Item  
No. 46 by the State Lands  
Commission by a vote of 3  
to 0 at its 9/30/76  
meeting.

CALENDAR ITEM

9/76  
WMT

46.

APPROVAL OF COST SHARING CONTRACT BETWEEN THE CITY OF LONG  
BEACH AND THE UNITED STATES ENERGY RESEARCH AND DEVELOPMENT  
ADMINISTRATION TO PROVIDE FOR A PILOT DEMONSTRATION OF  
ENHANCED OIL RECOVERY TECHNIQUES BY CAUSTIC FLOODING,  
LONG BEACH UNIT, WILMINGTON OIL FIELD

The City of Long Beach, as unit operator of the Long Beach Unit, pursuant to the provisions of Chapter 138/1964, 1st H.S., has requested Commission approval to enter into a cost-sharing contract with the Federal Energy Research and Development Administration (ERDA) to conduct a pilot demonstration of enhanced oil recovery by caustic flooding, and to develop appropriate economic and technical analyses of such work.

A suitable site will be provided within the Long Beach Unit for testing the caustic flood, after a test program has been conducted to determine the most suitable fluids to use in the demonstration project. The site will then be prepared for the project, followed by the actual demonstration for a sufficient period to determine the effectiveness of the selected techniques, and conducting appropriate technical and economic analyses toward furthering the technology being demonstrated and in assessing the viability of the process as an economic means of oil recovery.

The contract provides for the submission of financial, technical and progress reports on a specific schedule. Work progress shall be reported in accordance with the Program Plan and Milestone Chart prepared by the City of Long Beach in accordance with ERDA standards. Since it is Federal policy to increase the production of oil in the United States, the demonstration project, the techniques used for its accomplishment, and the data results of the project shall be made available to the public.

The total estimated cost of the pilot demonstration is \$11,584,572. The Long Beach Unit and the Federal Government will share the total cost on a 60%-40% basis, respectively. The Federal Government's total obligation under the contract is limited to \$4,633,829. The remaining cost of \$6,950,743 will be borne by the Long Beach Unit.

The Long Beach Unit is now realizing production of oil from the site of this project. During this project there is an expected oil recovery which should remain unaffected by the project. Any additional oil produced as the result of the caustic flood is incremental oil over this base production level. Revenue from this incremental

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oil will be shared by the Long Beach Unit and the Government in the ratio of the project costs supplied by each party. This sharing shall continue through the sixtieth (60) month from the execution of the contract or until the Government has recovered its entire contribution, whichever occurs first.

The mechanism established for payment to the Government of its share of the revenues is as follows:

1. Beginning twenty-four (24) months after execution of the contract and every twelve (12) months thereafter the Government's share of the project revenues will be credited against the Government's share of the project incurred costs throughout the remainder of contract performance. Voucher billings will cease after the fifty-two (52) months of contract performance.
2. A final adjustment will be made after the end of the sixtieth (60) month after the date of contract execution. The Long Beach Unit will pay to the Government its proper share of the revenues in excess of those previously credited up to the point at which the Government's share of the project costs have been totally refunded.

Division review of the pilot project indicates that this contract provides a means to lower the monetary risk of conducting a field test on a technological process which ultimately may provide a viable economic method to increase the ultimate oil recovery from the Wilmington oil field.

IT IS RECOMMENDED THAT THE COMMISSION APPROVE THE COST SHARING CONTRACT, ENTITLED "ENHANCED OIL RECOVERY BY IMPROVED WATER FLOODING", BETWEEN THE CITY OF LONG BEACH AND THE UNITED STATES ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION, PROVIDING FOR A PILOT DEMONSTRATION OF ENHANCED OIL RECOVERY TECHNIQUES BY CAUSTIC FLOODING IN THE LONG BEACH UNIT.