

DEPARTMENT OF PUBLIC WORKS

BUREAU OF SANITATION  
BOARD REPORT NO. \_\_\_\_  
OCTOBER \_\_\_\_, 2006

--- D R A F T ---

COUNCIL DISTRICT 15

**TERMINAL ISLAND RENEWABLE ENERGY (TIRE) PROJECT – PROJECT APPROVAL AND CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) COMPLIANCE (W.O. SZT11169/B.E. 649-06)**

**RECOMMENDATIONS**

Consider the CEQA initial study/Negative Declaration, which finds that the project will not cause significant impacts, adopt this report and forward this report and transmittals to the City Council with the following recommendations:

1. Consider the Negative Declaration (Transmittal 1).
2. Find, on the basis of the whole record, that there is no substantial evidence that the project will have a significant effect on the environment.
3. Find that the Negative Declaration reflects the City's independent judgment and analysis.
4. Adopt the Negative Declaration.
5. Approve the project as described in the initial study.

**FISCAL IMPACT STATEMENT**

Funding for the TIRE project including contingencies totals \$3,036,00.00. Funds may be drawn from the Sewer Capital Fund No. 761, the WW Syst Comm Paper A Const Fund No. 70W, or any future funds established as a result of commercial paper or bond sales, at the discretion of the Director of the Bureau of Sanitation or her designee. The funding amount and sources are as stated in the TIRE project Board Report adopted by the Board on March 13, 2006, which is herein attached as Transmittal No.3.

**TRANSMITTALS**

1. Negative Declaration with initial study attached, dated October 16, 2006.

2. Four comment letters to the Negative Declaration, one dated September 14, 2006; one dated September 18, 2006; and, two dated September 19, 2006.
3. [Joint Board Report No. 1](#), dated March 13, 2006, of the Bureaus of Sanitation and Contract Administration for Authority to Execute Personal Services Contract with Terralog Technologies for Specialized Expert Assistance in Developing the Terminal Island Renewable Energy Project.

## DISCUSSION

The City of Los Angeles produces 700 wet tons of biosolids daily at two of its four wastewater City treatment plants. The City currently manages its biosolids at its farm, Green Acres in Kern County. The biosolids are land applied as a soil amendment to grow crops that are sold to local dairies. Due to recent opposition in Kern County to biosolids land application the City is investigating and researching alternative biosolids beneficial re-use options.

The proposed Terminal Island Renewable Energy (TIRE) project is an innovative technology for converting biosolids into clean energy by deep well injection and thermal biodegradation while at the same time reducing greenhouse gas emissions through geologic sequestration. The process takes advantage of renewable geothermal energy (heat) in the subsurface to create another source of renewable energy (relatively pure methane from subsurface biodegradation of biosolids). By injecting biosolids into the deep subsurface, methane released to the atmosphere is eliminated and carbon dioxide is sequestered in the saline formation.

The implementation of the TIRE project will result in less truck traffic for hauling, and provide the City with another management option for biosolids. It will eliminate the need for dewatering, off-site trucking, and land application. The operation can potentially reduce or eliminate the energy requirements for surface digestion. In addition, it will provide an opportunity to capture methane gas generated by the biosolids decomposition which can be used as renewable fuel in "green power" generation.

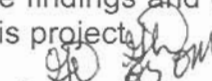
TIRE is initially a demonstration project. If successful and proven to be economical and reliable, all TITP biosolids will be managed through the well on site. In later phases of the project, a portion of the Hyperion Wastewater Treatment Plant (HTP) biosolids will be trucked to Terminal Island Wastewater Treatment Plant (TITP) for injection into the well.

The TITP is a city-owned wastewater treatment plant located on Terminal Island. The TIRE facility will occupy one half acre of the 25 acre TITP. The facility will consist of three 5,300 foot deep wells, a train of surface injection equipment, and 500 feet of 5" diameter slurry delivery piping. The wells will have mainly a 9-5/8" injecting casing and 3-1/2" steel injection tubing, both of which run through the

entire depth of the well. At the lower end, the casing and tubing forms an injection chamber with perforations from where slurry is injected into the target formations. Of the three wells, one well is for the slurry injection; two wells will be for gas recovery and monitoring.

The facility will be an open all weather facility with emission and odor control methods incorporated into the design. Process equipment, tanks, and bins will be sealed, covered or misted, as applicable, to minimize odors, spillage and fugitive dust. The facility will be operating with two shifts, from approximately 5:00 A.M. to 9:00 P.M., with three workers. Pumping operations are planned for eight to ten hours per day, five days per week.

The proposed ND was circulated for public review and comment (August 17, 2006 until September 16, 2006). Four comment letters were received (Transmittal No. 2). In summary, the ND underwent revisions as a result of comments submitted during the public circulation. The revisions did not necessitate any change in the findings and conclusions of the ND. No significant impacts are anticipated for this project.

  
( GD OM RY VA )

Report reviewed by:

Respectfully submitted,

Regulatory Affairs Division

Report prepared by:

Rita L. Robinson  
Director

Environmental Management Group

Ara J. Kasparian, Ph.D.  
Group Manager  
Phone No. (213) 485-5729

Questions regarding this report  
may be referred to:

Project Manager: Homayoun R. Moghaddam, P. E.  
Phone No. (310) 648-5423

Writer: Irene Paul  
Phone No. (213) 485-5761  
Fax No. (213) 847-0656