

## CALIFORNIA'S REVIEW OF US ECOLOGY'S LOW-LEVEL RADIOACTIVE WASTE LICENSE APPLICATION

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### ABSTRACT

The California Department of Health Services, under federal and state statutory mandate, is the lead agency for licensing and regulating the Southwestern Compact's low-level radioactive waste disposal facility. US Ecology has submitted a license application for disposal of all low-level radioactive waste except mixed waste. The Department uses contractors and ad hoc groups to supplement its own staff to perform work related to issuing the license and overseeing operations. The license is to be issued in 1991, at which time operations will commence. Mixed waste disposal is being addressed separately.

California's actions to license a low-level radioactive waste (LLRW) disposal facility are set against a background of federal and state legislation. The California Legislature attempted in 1982 to pass LLRW disposal legislation in response to the 1980 federal LLRW Policy Act (PL 96-573), but the first try, during the Edmund G. Brown, Jr., administration, resulted only in interim storage authority being granted to the State. A comprehensive statute was enacted in 1983, the first year of the George Deukmejian administration, which mandated the State to establish a disposal facility, instructed the Governor to seek compact partners, named the Department of Health Services as lead agency and defined its duties, and instructed the Department to select, by a competitive process, a private firm as license designee. The role of the firm was to select a site, characterize it, apply to the Department for a license, then operate the facility under Department regulation. US Ecology, Inc., selected in December, 1985, has submitted a complete license application for disposal of all low-level radioactive waste except mixed waste. The proposed facility is located in the Ward Valley, about 25 miles west of Needles, San Bernardino County. When the facility goes into operation in 1991, the Department will have full regulatory and rate setting authority over disposal of low-level radioactive waste generated by Arizona, California, North Dakota, and South Dakota, the party states to the Southwestern Compact. California and the Compact's actions are geared to meet the requirements of the 1985 Low-Level Radioactive Waste Policy Amendments Act (PL 99-240). This paper describes the actions taken by the Department associated with its regulatory responsibilities.

### STAFFING AND FUNDING

California has been an agreement state since 1962, and so has responsibility and authority to issue the low-level radioactive waste license. The U.S. Nuclear Regulatory Commission (NRC) is involved only to assure that the California radioactive materials regulatory program, including low-level radioactive waste, remains in compliance with federal standards, and as called upon by the Department for technical assistance. California's enabling legislation puts the financial burden of site selection and license preparation upon the license designee, including payment of an annual license fee of \$250,000 to the Department. The license fee supports a project director, who is an engineer, a health physicist, an economist, and clerical support. The Department has no other staff dedicated to the project but furnishes such assistance as program management and legal services by assigning appropriate staff on a part-time basis. In addition to the license fee, the Department has access to the surcharge rebates awarded as a result of having met milestones under PL 99-240. To date, the Southwestern

Compact has received nearly \$1.75 million in rebates. As host state, California has the benefit of most of the money.

### ENVIRONMENTAL IMPACT ANALYSES

The project is subject to the National Environmental Policy Act because the land is owned by the U.S. Bureau of Land Management and will be transferred to the State. A major land transfer requires preparation of an environmental impact statement. The State's own California Environmental Quality Act requires preparation of an environmental impact report by the Department as the licensing agency. By memorandum of understanding, the Bureau and the Department have agreed to prepare a single document to meet both federal and state legal requirements. It will use US Ecology's proponent's environmental assessment as its core. Preparation of the environmental impact report/environmental impact statement will parallel license review and its certification is expected at about the same time as the license is issued. The major environmental issue, the desert tortoise, requires special consideration.

### CONTRACTS AND OTHER PROGRAM ASSISTANCE

The small number of individuals who make up the Department's low-level radioactive waste staff are obviously

not able to do all of the necessary work. Technical assistance available from the NRC is limited to addressing specific problems and does not extend to performing a state's job in license review or the many other actions necessary to oversee development of a low-level radioactive waste facility. The U.S. Department of Energy, through EG&G Idaho, provides technical aid under federal mandate. The Department has called upon EG&G Idaho for assistance with several specific problems, but the support program, although highly valuable, cannot meet all of any one state's needs. The Department has used the surcharge rebates to fund several contracts to accomplish its mandated work. All basic contracts involve evaluation of fixed-price proposals submitted in response to the Department's requests for proposals. The technical proposal is enclosed in an envelope separate from the fiscal proposal, allowing the technical proposal to be evaluated without knowing the cost. Technical proposals graded 80% or better, based upon pre-developed criteria, are judged acceptable. The corresponding fiscal proposal envelopes are then opened and the contract is awarded to the lowest bidder.

**Review of US Ecology's Data.** During the site selection phase, Department staff monitored all of US Ecology's actions. Technical data developed by US Ecology and its several contractors during site selection, and eventually site characterization, were submitted to the Department. Staff review was enhanced by review under terms of a contract awarded to Roy F. Weston, Inc. US Ecology's data were examined by Weston's cadre of experts who then advised the Department on their findings. The Department then either accepted the data or directed US Ecology to modify its work as needed. Weston's contract ran from August, 1987, to June, 1989. Separate contracts were awarded Inyo County and San Bernardino County to evaluate US Ecology's site selection data for the three candidate sites in the two counties. The county contracts covered the period from July, 1987, through June, 1988. The contract with San Bernardino County is renewed annually, modified to fit current needs.

**Enhanced Technology.** California's low-level radioactive waste statutes do not impose any specific disposal technology. The Department issued a contract to Ebasco Environmental (then Envirosphere) to evaluate enhancements to near-surface disposal which would provide a greater margin of safety and would increase public confidence in the site's performance. As a result of the evaluation, the Department directed US Ecology to design the disposal trenches so as to increase the cover over the waste and to decrease exposure to higher-activity wastes. These simple enhancements will add little to the cost and will afford increased safety. The contract began in June, 1987;

the portion of the contract which dealt with enhanced technology continued through June, 1989.

**Quality Assurance/Quality Control.** A quality assurance/quality control (QA/QC) program is described in the NRC document NUREG 1293. The Department amended the Ebasco contract to obtain a QA/QC policy and implementation plan and to have QA/QC audits performed of US Ecology and its contractors. The QA/QC portion of the contract has been in place since April, 1988, and will continue through June, 1990.

**Environmental Impact Documentation.** A contract was awarded to Dames and Moore, Inc., under terms of a memorandum of understanding between the Department and the Bureau of Land Management. As is often done, the proponent bears the cost of preparing the environmental documents. Dames and Moore's invoices are submitted to the Department; upon approval, the invoices are forwarded to US Ecology for direct payment to Dames and Moore. The contract period is from March, 1988, through April, 1991. A separate contract with San Bernardino County brings that local government into the environmental review process. The San Bernardino contract runs from April, 1989, through June, 1990, but will be renewed to coincide with the contract with Dames and Moore.

**License Review.** NUREGs 1199, 1200, 1274, and other NRC guidance documents set forth requirements for adequately reviewing a low-level radioactive waste license application. Including the environmental documentation, NRC calculates that a total of 8 person-years among 22 disciplines will be needed. The Department chose to separate environmental documentation from license review. In addition to the environmental documentation contract with Dames and Moore, the Department contracted with Roy F. Weston, Inc., to review the license application. Weston teamed with Rogers and Associates Engineering for the review. Under terms of the contract, Weston is to prepare a management plan, review the license for completeness and in detail, and prepare a safety evaluation report. The contract was let in August, 1989, and will continue until licensing is completed.

**Mixed Waste.** Regulatory uncertainties led to the Department's decision to not delay progress toward developing a facility for disposal of all low-level radioactive waste except that small quantity which is also subject to laws governing disposal of hazardous waste. However, the State and its license designee remain responsible to provide for low-level radioactive waste in its entirety. Mixed waste disposal will be handled by means of a separate environmental review and license application. The Department awarded a contract to Ebasco Environmental to evaluate management

options and develop a mixed waste management plan. The contract period is August, 1989, through August, 1990.

**Fiscal Review.** Under State law, the Department is to review and approve disposal rates charged by US Ecology. This function, similar to that of a public utility commission, is separate from the Department's role as regulator. A contract is being prepared to give the Department assistance in reviewing US Ecology's expenditures for reasonableness and prudence and to establish the rate-setting mechanism. It will be awarded in July, 1990, and is expected to continue through June, 1991.

### AD HOC GROUPS

The Department has made extensive use of ad hoc working groups, task forces, and steering groups, in addition to the statutory Low-Level Radioactive Waste Advisory Committee. The ten-member Advisory Committee includes representatives of medicine, research institutions, industry, local government, and the public. The purpose of using advisory groups is three fold. One is to involve in the decision making process individuals from entities affected by the Department's decisions. Another is to assure that all regulatory concerns are met. The third is to provide the Department with expertise not possessed by the low-level radioactive waste staff. The ad hoc groups are used to focus on specifics and are short-term, in comparison with the statutory Advisory Committee, which deals generally with issues and provides overall continuity of counsel to the program.

**Proposal Review.** The Department convened an ad hoc evaluation group each time that proposals were received in response to requests for proposals. Typically, five members were named to evaluate each proposal. They included three low-level radioactive waste staff, one person with expertise in the Department's contracting process, and one outside individual with technical knowledge of the subject of the proposal. A new ad hoc evaluation group is convened each time that proposals are received.

**Environmental Impact Documentation.** A steering group oversees and guides preparation of the environmental impact report/statement. Its members represent the Department, the Bureau of Land Management, US Ecology, Dames and Moore, the Governor's Office of Planning and Research (which coordinates preparation and review of environmental documents written by State agencies), and a user's group, the California Radioactive Materials Management (Cal Rad) Forum. It will continue to function until the documents have been completed.

Separately, an ad hoc working group was convened to address the issue of the desert tortoise, a species protected under both federal and State law. The proposed site is in a designated crucial habitat area. The working group included members from the Department, the Bureau of Land

Management, US Ecology, the Cal Rad Forum, the U.S. Fish and Wildlife Service, the California Department of Fish and Game, San Bernardino County, the Sierra Club, and the Desert Tortoise Council, an organization of individuals interested in preservation of the species. The working group's charge was to identify significant adverse impacts of the project upon the tortoise, then to suggest mitigations and compensations to offset the impacts. Their recommendations will be incorporated into the environmental impact report/statement. The working group met five times from April, 1988, through January, 1989, at which time its work was completed.

**Mixed Waste.** An ad hoc mixed waste management task force includes representatives of the Department's low-level radioactive waste and Toxic Substances Control Programs, the State of Arizona, the California Resources Agency, the California State Water Resources Control Board, the Governor's Office of Planning and Research, US Ecology, and the Cal Rad Forum. Its role is to oversee and direct Ebasco Environmental and counsel the Department as the mixed waste management plan is prepared and plans are made for implementation. The task force was formed in December, 1988, and has met several times. It will continue to function until a final plan for mixed waste disposal is completed.

**License Review.** An ad hoc license review team of 13 people made up of persons from the Department, the Regional Water Quality Control Boards, the Department of Fish and Game, and Ebasco Environmental. The team's role is to review work done by Weston in reviewing the license in order to ascertain that all regulatory requirements are met. Individual members will review portions of the work as it is completed, depending upon their particular interest and expertise. The team will continue its work until the license is issued.

**Fiscal Review.** An ad hoc fiscal review group is composed of representatives from the Department, the Low-Level Radioactive Waste Advisory Committee, the Cal Rad Forum, US Ecology, and the Public Utility Commission. It will guide the Department and its contractor in all aspects of rate-setting and fiscal control. Its anticipated life is about two years.

In addition to the statutory Advisory Committee and the ad hoc groups, the Department is counseled by US Ecology's Local Advisory Committee, which is made up of citizens who reside near the proposed site. These knowledgeable individuals are advising the Department on the environmental and license review issues, as well as mixed waste management. Meetings of the Local Advisory Committee have been scheduled two or three times a year by US

Ecology, with the Department participating at each meeting to obtain guidance from the Committee.

**SUMMARY**

The California Department of Health Services, assigned a strong regulatory role by State legislation, is meeting its mandates relating to licensing a low-level radioactive

waste facility through the liberal use of contractors and ad hoc groups, all under the close oversight of Department staff assigned to the project. It expects to license the nation's first new low-level radioactive waste disposal facility in accord with current federal, State, and Southwestern Compact requirements, early in 1991.