Union Oil Company of California

Union Oil Center, Box 7600. Los Angeles, California 90051 Telephone (213) 977-6810 DOCKETED



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Carleton B. Scott Director, Environmental Sciences December 2, 1981

Mr. Samuel J. Chilk Secretary of the Commission U.S. Nuclear Regulatory Commission Washington, D.C. 20555

PROPOSED BULE PR-2 etal (46 FR 38081)

Att: Docketing and Service Branch

Dear Sir:

Union Oil Company of California (Union) takes this opportunity to present comments on the Nuclear Regulatory Commission (NRC) proposal published in the July 24, 1981 Federal Register (46 FR 38081) to add a new 10 CFR Part 61 to provide licensing procedures, performance objectives, and technical criteria for licensing facilities for the land disposal of radioactive wastes. Set forth below is a summary of Union's nine major concerns with the NRC proposal.

- 1. Existing facilities holding v lid licenses for the land disposal of radioactive waste should be exempt from the additional licensing requirements of the proposed regulations.
- 2. A "de minimis" classification of wastes should be established to give relief to those facilities handling material whose radiation levels are sufficiently low so as to pose no threat to health or the environment.
- 3. The provision that binding interpretations of regulations can be made only by the Commission or the General Counsel is overly restrictive. Negotiations with the NRC will be hampered if all other NRC agents have only apparent authority and not actual authority.
- 4. Provision should be made for an "interim status" which would allow present disposal operations to continue legally until such time as licensing can be considered for them.
- 5. Self-insurance should be permitted for those who qualify based on an annual submittal of financial reports.

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- The procedures for waste classification should be clarified. The list of radioisotopes in Table I should be expanded and detailed instructions should be given for classifying material not explicitly listed.
- 7. The proposed exposure limit of 25 mrem/yr at the boundary is restrictive and fails to take account of background radiation. The limit should be set as an increment above background with total dose not exceeding one-third of the occupational limit.
- Provision should be made to allow bulk shipment and disposal of low level waste.
- 9. An applicant having all the required permits to construct on a site except an NRC license for disposal of low level waste should be allowed to commence construction with the understanding that he may not be allowed to use the site for low level waste disposal until such time as appropriate approvals for such activity have been received.

Union's specific, section-by-section comments are set forth below.

Section 61.1 - Purpose and scope.

Existing facilities holding valid licenses for the disposal of radioactive wastes should be exempt from the licensing requirements proposed in Part 61. This exemption should include disposal at licensed uranium mill tailings and low level waste disposal facilities with an approved disposal plan under 10 CFR Section 20.302. Requiring a licensed facility to significantly amend its license under Part 61 or apply for a new license, only serves to discourage consolidation of wastes without any benefit to safety or the environment.

Section 61.2 - Definitions.

A definition of naturally occuring radionuclides should be included.

Section 61.3 - Licenses required.

As proposed, Section 61.3(a) (also 61.10 and 61.23) would regulate the land disposal of any radioactive waste containing source, special nuclear, or by-product material without establishing a "de minimis" classification of wastes. Wastes containing the most minute amounts of radioactive material would be regulated irrespective of the level of radiation. This places an undue burden on facilities handling material whose radiation levels are sufficiently low so as to pose no threat to health or the environment. A "de minimis" classification of wastes should be established which considers two factors: (1) the volume, amount, or weight of the waste and (2) the concentrations of radioactive elements in the waste.

Section 61.3(b) and Section 30.33(5)

An applicant should be allowed to commence construction at his own risk prior to a final NRC determination, provided other approvals are received. If an applicant has all required permits to construct on a site except an NRC license for disposal of LLW, he should be allowed to commence construction with the understanding that he may not be allowed to use the site for LLW disposal until such time as appropriate approvals for such activities have been received.

For example, assume that a company wishes to develop a new mine and processing plant, and the plant will produce a LLW. The company has the option to dispose of the LLW on site or ship it off-site for disposal. The mine site is found to be acceptable for a LLW disposal site. The company has other facilities that produce LLW and disposes of such material at commerical sites. The company chooses to consolidate all LLW for disposal at the new site if approval is given by NRC. The company wishes to proceed with development of the mine and other facilities (some of which will be used in processing LLW) independent of NRC approval for LLW disposal. The overall project construction should not be held up pending a Part 61 license, since if it was not approved the option exists to ship the waste to another site for disposal.

Section 61.5 - Interpretations.

Under this proposed provision a person is not entitled to rely on the representations of anyone from the Nuclear Regulating Commission (NRC) unless the interpretation is in writing from the General Counsel or is specifically authorized by the Commission. All employees of the NRC have only apparent authority and any representations which they make in negotations are not binding. This means that the only way to negotiate with the NRC will be to negotiate directly with the Commission or with the General Counsel. This appears to be unworkable.

Section 61.7 - Concepts.

Section 61.7(c). The procedures to obtain a license are both costly and lengthy. The analogous RCRA regulations provide for an "interim status" which allows existing disposal facilities to continue to operate under minimum standards until such time as licensing can be considered for them. Under the proposed NRC regulation, existing disposal operations will apparently become illegal overnight unless an "interim status" is provided or they are made exempt.

Section 61.10 - Content of application.

Under this section an application must be filed by anyone dealing with a waste containing a source material. A material is classed as a source material if it contains more than .05 weight percent of uranium, thorium, or any combination thereof. In the case of rare earths a material is a source material if it contains in excess of 0.25 weight percent uranium, thorium, or any combination of these.

The term "containing" is overly broad. The contamination with a source material could for example be one percent. This means that some waste containing source material is covered when it contains one percent of .05 weight percent. This is only .0005 weight percent. This is probably far less than the content of most naturally occurring ores. This is an extreme example of the need for a de minimis provision.

Section 61.12 - Specific technical information.

The requirement in Section 61.12(a) to provide a description of geologic and other data for the disposal site and vicinity is unduly broad in that "vicinity" is not defined. This provision may require surveys to be made on neighboring property which may or may not be accessible to the applicant's personnel. In any event the perimeter of the survey should be more precisely described.

Note that "land disposal facility" as used in Section 61.12(f) includes the buildings. If the buildings are an integral part of the disposal process the inclusion of their description is reasonable. However detailed descriptions of auxilliary buildings such as offices, cafeteria facilities, etc., should not be required.

The Section 61.12(h) requirement should be limited to an identification of "known" natural resources. The applicant should not be forced to undertake expensive resource evaluations of an exploratory nature, such as deep drilling, etc.

Section 61.20 - Filing and distribution of applications.

The applicant should be required to provide only enough copies of the application and EIS to satisfy the distribution requirement.

Section 61.23 - Standards for issuance of a license.

This section applies to a radioactive waste "containing" or "contaminated" with a source material. Regardless of the meaning "containing", "contaminant" clearly suggests the mere presence of very minor amounts of source materials, such as at the one percent level or less. This ties in with the earlier discussion (Section 61.10) that even low levels of thorium and uranium are included within the scope of these regulations.

Section 61.28 - Content of application for closure.

An explanation should be provided to define the data that are "pertinent" to the long-term confinement of emplaced radioactive waste. The requirement as stated gives undue breadth for interpretation.

Section 61.41 - Protection of the general population from releases of radioactivity.

The proposed limit of 25 mrem/yr at disposal site boundaries is rather restrictive in view of the occupational limit of 5 rem/yr. In some locations the background radiation levels may result in exposures above this proposed limit. Either a higher limit would be preferable or one which is based on a percentage of the total background level for a year, providing this does not exceed one-third of the occupational limit. The limit might be stated as an amount or percentage above background with the increment above background being set on a case-by-case basis.

Section 61.50 - Disposal site suitability requirements for land disposal.

In Section 61.50(2), the criteria to determine if a site is capable of being modeled need to be established. What role will modeling play in the licensing process? What site characteristics and events will be modeled? Do NRC approved models exist?

The Section 61.50(4) areas to be avoided should be limited to areas having known natural resources.

If Section 61.50(6) is intended to provide that upstream drainage must be diverted, it should so state.

The term diffusion is unclear in Section 61.50(7). There are many types of diffusion, including convective, molecular, etc. The designation of the particular type of diffusion is important for an understanding and enforcement of the regulation.

The Section 61.50(8) language is unclear. Note that in other regulations "disposal unit" is defined as the actual disposal area while "disposal site" includes the disposal area plus a buffer zone. It is not clear from the language in this section of the regulations whether no groundwater shall be discharged from the disposal unit or from the disposal site.

Section 61.53 - Environmental monitoring.

The term "information" in Section 61.53(a) is unduly broad and is subject to interpretation.

In Section 61.53(b), the type of required monitoring should be specified explicitly. It is understandable that monitoring should be required during operations. It is not clear why monitoring is required during construction.

Section 61.55 - Waste classification.

A detailed set of instructions describing the use and application of Table I should be provided. The instructions contained in the footnotes to Table I are incomplete, vague, confusing and difficult to apply. The list of radioisotopes explicitly listed in Table I should be expanded. In particular, thorium and the daughters of uranium and thorium should be added. A Class D should be established to cover radioisotope concentrations in excess of the values shown in Column 3. In general, the procedure for determining the class of radioisotopes and mixtures of radioisotopes not explicitly listed in Table I needs clarification.

Section 61.56 - Waste characteristics.

Section 61.56(2) should be deleted. DOT and NRC transportation regulations allow certain materials to be shipped in fiberboard boxes (Type A Packaging). For certain low level waste use of cardboard or fiberboard boxes may be suitable for both shipping and disposal. This determination should be made on a case-by-case basis. A section should be added to allow bulk shipment and disposal of low level waste based on a case-by-case evaluation, taking into consideration such factors as the nature of the waste, method of disposal, cost/benefit analysis, safety, etc.

Section 61.59 - Institutional requirements.

The proposed rule requires state or federal ownership of the site before a license may be issued. Provision should be made to insure that ownership would revert to the applicant if the site is not used as a final low level waste disposal site. It is easy to foresee occurences where, even though a site is approved for low level waste disposal, the project is abandoned prior to disposal due to adverse public opinion or changes in economics or need. It is also very possible that a company may choose to remove low level waste from a disposal site and use the land for some other purpose. Further, if the NRC subsequent to title transfer determines that use of the site will not pose a radiation hazard, the applicant should receive the right of first refusal for use of the land.

Section 61.62 - Funding for disposal site closure and stabilization.

The Section 61.62(f) requirement for surety without proof of forfeiture is very unusual. Needless to say, this type of surety will be quite expensive if not prohibitive. There seems to be no justification for this provision. The surety should be available if there is a forfeiture, perhaps also in those cases where forfeiture is imminent. It should not otherwise be available.

As under the Clean Water Act, self-insurance should be permitted for those who qualify based on an annual submittal of financial reports. Financially strong companies should not be required to furnish surety bonds underwritten by surety companies that are weaker financially than they are. Furthermore, it is our understanding that the majority of surety companies will not offer bonds of the type being considered because of the long term obligation which would be involved; and the other alternatives, i.e. cash deposits, certificates of deposit, irrevocable letters of credit, etc., are quite costly.

Section 20.311 - Transfer for disposal and manifests.

The requirement of a notification of receipt by the disposal facility to the shipper (generator) might be satisfied by using a signed and dated copy of the manifest.

Section 20.311(d). The reference made to meeting the requirements of Section 61.56 should be qualified. Class A segregated waste need only comply with Section 61.56(a).

Section 30.32 - Application for specific licenses.

On 46 FR 38103 column 3, the fourth line should read "months prior to commencement of." The word "prior" is omitted in the referenced line.

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We trust that you will take our comments into consideration in promulgating this regulation. Should you have any questions concerning Union's comments, please contact Dr. Allan A. Hirata of my staff at (213) 977-6720.

Sincerely,

Sant Carleton B. Scott