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ENVIROCARE OF L'TAH INC THE SAFE ALTERNATIVE

January 17 1997

Dr. Diane Nielson Executive Director Utah Dept. of Environmental Quality P. O. Box 144810 Salt Lake City, UT 84114-4810

Dr. Shirley Jackson, Chairperson
'S Nuclear Regulatory Commission
OWFN, 27D1, 16 G15
11555 Rockville Pike
'Rockville, MD 20852-20037

Jack McGraw Acting Regional Administrator US Environmental Protection Agency Region VIII, MS 8HWM-HW 999 18th St., Suite 500 Denver, CO 80202-2405

The purpose of this letter is express our support for each of your staffs and your licensing and permitting processes and to invite and encourage any additional reviews or inspections that will help to verify the quality of Envirocare's licenses, permits, and operations.

Let me emphasize that Envirocare has full confidence in the Utah Department of Environmental Quality (DEQ) and its current staff who have participated and are participating in the licensing and permitting of our facility. The licenses and permits Envirocare has obtained from DEQ received excellent analyses and contain conditions developed in accordance with appropriate regulations that are protective of worker and public health, safety, and the environment. Envirocare has similar confidence in the Environmental Protection Agency (EPA) and the Nuclear Regulatory Commission (NRC) and their staffs. However, if there is a need to allay any concern, we invite and encourage you to perform any additional reviews or inspections of Envirocare's licenses, permits, or operations you may find necessary.

Envirocare's confidence in the quality of the licenses and permits is based on two factors. First, our first-hand knowledge of the quality and integrity of the many DEQ. NRC, and EPA employees who participated in the licensing and permitting process. Second, the numerous reviews, audits, and inspections that have already taken place and that continue from all of the



1/22.... to EDO for Appropriate Action... Cpy to: Chairman, RF..97-0077

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regulatory agencies. This confidence is further enhanced by the understanding Envirocare has of the actual processes DEQ, NRC, and EPA used in reviewing and issuing the licenses and permits. No one individual could have improperly influenced the process given the number of people and other agencies involved.

The major licenses and permits Envirocare has received and the processes used can be briefly summarized:

- The Radioactive Material License for low-level waste issued by the Utah Division of Radiation Control (DRC) specifically followed requirements and regulations pursuant to Utah's "agreement" state program approved by the NRC. This license was prepared by the
- technical staff within the Division and received appropriate reviews by the Utah Attorney General's Office, the DEQ's Office, and the NRC. Comment responses were prepared on comments received during the public comment period. The NRC made a formal review of several questions raised during the comment period. The NRC unanimously approved Utah's actions on the questions. Since a new Director of Radiation Control was appointed in June of 1993, additional reviews have taken place for various modifications and licenses. The license is also being renewed as required every five years. This renewal process is well under way. Further, a Groundwater Quality Discharge Permit, vital to this license, was issued by the Utah Division of Water Quality.
 - The Groundwater Quality Discharge Permit was developed by the Utah Division of Water Quality pursuant to water quality statutes and regulations. This permit was written by staff within the Utah Division of Water Quality and, was reviewed by several levels of management within the Division. Appropriate reviews were performed by the Attorney General's Office and the DEQ office, and was signed by the Director of the Utah Division of Water Quality. Copies of the draft permit were made available for public review.
 - The Solid and Hazardous Waste Plan Approval (Permit) was issued by the Utah Division of Solid and Hazardous Waste under specific hazardous waste regulations. The Utah Division of Solid and Hazardous Waste followed requirements and regulations reviewed and approved by EPA. This permit was written and received internal review within the Utah Division of Solid and Hazardous Waste by technical staff and several levels of management. Further, the permit received appropriate reviews by the Attorney General's Office, the DEQ Office, and the EPA. This permit was signed by the Director of the Utah Division of Solid and Hazardous Waste.
 - The U.S. EPA RCRA Permit was issued for those regulatory areas for which Utah had not received delegation. This permit was issued by the Region VIII EPA staff through the normal RCRA process involving a number of technical and management staff within the EPA, which included public participation.

January 16,1997 Page 3

 A Radioactive Material License for the disposal of 11e.(2) wastes was issued by the NRC after analyses and review under the requirements and regulations developed for evaluating licenses for the disposal of uranium and thorium mill tailings. This process required full public participation through an Environmental Impact Statement process as well as the normal licensing process.

For these major licenses and permits, three Divisions within DFQ, as well as two federal agencies EPA, and NRC, issued independent permits and licenses to Envirocare. Further, both the EPA and NRC were involved with the review of the work performed by the DEQ. Additionally, since June of 1993, many amendments, modifications, inspections, and audits have provided further review of the licenses, permits, and operations. In addition to the regulatory agency reviews and inspections, numerous customers, including the Department of Defense and the Department of Energy, have audited the Envirocare facility and found it safe to receive wastes from each of their facilities.

Although Envirocare strongly believes that our licenses and permits are sound and that we meet or exceed state and federal requirements established to protect worker and public health and the environment, there may be a need to provide additional verification of the quality of Envirocare's licenses, permits, and operations. If, in your judgment, there is a need to allay any concerns involving Envirocare, we invite and encourage your agencies to perform any additional reviews and inspections of its licenses, permits, and operations which you may determine are necessary.

If you have any questions, please contact me at (801) 532-1330.

Sincerely.

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Charles A. Judd Executive Vice President

Jan-22-97 08:59A

January 21, 1997

The Honorable Shirley Ann Jackson U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Re: Petition to Conduct Expedited Agreement State Program Compatibility Review

Dear Chairman Jackson:

Attached is a petition submitted by the American College of Nuclear Physicians California Chapter ("California ACNP") to the Utah Radiation Control Board and Utah Department of Environmental Quality seeking reasonable and prudent protection from what we are concerned may be significant deficiencies in the state's regulation of the Envirocare disposal facility.

By copy of the petition, prepared consistent with 10 CFR Part 2, Subpart H, s.2802(c), California ACNP hereby petitions the NRC to conduct a timely review of Utah's Agreement State Program with respect to the issues raised to ensure that Agreement State compatibility requirements are properly implemented. Petitioner seeks your particular attention to implementation of financial assurance requirements.

With Utah in the midst of reviewing a license renewal application based on receipt of up to 10.5 million cubic feet of waste per year, California ACNP respectfully requests your personal involvement in resolving the nationally important issued raised by our petition. In our view, a thoughtful and substantive response to the situation in Utah is critical to maintaining NRC's credibility as the federal entity responsible for regulating the management of low-level radioactive wastes.

sincerely,

ADC 813177 -----

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Carol S. Marcus, Ph.D., M.D. Director, Nuclear Med. Outpt. Clinic Harbor-UCLA Medical Center and Professor of Radiological Sciences, UCLA and President, American College of Nuclear

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Physicians, California Chapter

cc: Honorable Lauch Faircloth

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American College of Nuclear Physicians

California Chapter

Dorothy Duffy Price Executive Director

Box 31 Los Altos, CA 94023

TEL (415) 949-1341 FAX (415) 949-1341

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January 21, 1997

Robert J. Hoffman, Chairman and Members Utah Radiation Control Board Department of Environmental Quality 168 North 1950 West P.O. Box 144850 Salt Lake City, UT 84114-4850

Subject: Petition for Rulemaking

Dear Mr. Hoffman:

1-188 PT -1885

The following petition is submitted to the Utah Radiation Control Board in accordance with the State of Utah's responsibilities as an Agreement State under Section 274 (b) of the federal Atomic Energy Act as amended. Petition format and content is based on the U.S. Nuclear Regulatory Commission's 10 CFR Part 2, Subpart H, section 2.802(c) rule. We request that you inform us immediately if Utah law or regulations require us to follow an alternate procedure so we may take the necessary steps to resubmit it. By copy of this letter, we request that the Department of Environmental Quality undertake any related actions which are reserved to it or the Division of Radiation Control consistent with its Agreement State responsibilities and authority. We further request, by copy of this letter, that the NRC appropriately consider all Agreement State compatibility questions including the posting of sufficient financial assurances.

I. General Problem Statement and Proposed Solution

1. <u>Problem Statement:</u> Envirocare is not currently requized to post substantial financial assurances, a circumstance we consider directly inconsistent with the state's earlier decision to exempt Envirocare from 10 CFR Part 61 institutional control requirements for land ownership. This concern is compounded by Utah's recent authorization to dispose of non-containerized nuclear power plant ion exchange resin wastes.

Envirocare is now actively pursuing a state license renewal based on acceptance of up to 10.5 million cubic feet of radioactive waste per year from combined private sector and government sources. (For comparison purposes, Ward Valley is licensed to receive a total of 5.5 million cubic feet of waste over the gite's entire 30-year life). Of this total,



American College of Nuclear Physicians

California Chapter

Dorathy Duffy Price Executive Director

Box 31 Los Altos. CA 94023 TEL (415) 949-1341

FAX 14151 949-1341

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January 21, 1997 Robert J. Hoffman, Chairman and Members Page -2-

> for Envirocare, more than 1 million cubic feet would be comprised of nuclear reactor-related low-level wastes, of which 80,000 cubic feet may comprise resin and other nuclear power plant cleaning wastes. An additional 3 million cubic feet of annual capacity is proposed for unspecified radioactive wastes containing naturally occurring and manmade isotopes falling within the 10 CFR Part 61.55 Class A concentration limits. When compared to the detailed source term analysis and related safety evaluation performed by California for Ward Valley, Envirocare's request to take an unidentifiable source term of 3 million cubic feet/year raises serious guestions about the level of detail used for pathways analysis and performance assessment.

- 2. <u>Proposed Solution:</u> The following petition components are respectfully submitted in the interest of obtaining reasonable and prudent protection from liability which may arise as a result of what appear to be significant deficiencies or potential deficiencies in the State of Utah's regulatory program for the Envirocare facility.
 - (a) The California Chapter of the American College of Nuclear Physicians ("California ACNP"), whose members or member employers have shipped or will ship low-level radioactive waste to the Envirocare of Utah disposal facility in Tooele County, hereby file this petition for rulemaking with the Utah Radiation Control Board to obtain an indemnification from the State of Utah and/or its licensee for contingent environmental liability costs related to the disposal of low-level waste disposed at the Envirocare facility.
 - (b) California ACNP petitions the Board to consider promulgation of an emergency rule to prohibit the continued, non-containerized disposal of nuclear power plant ion exchange resins at the Envirocare facility. Petitioner does not understand why the Division of Radiation Control chose to authorize this apparently extraordinary practice in the midst of its ongoing review of Envirocare's radioactive materials license renewal application. Accordingly, an immediate order rescinding the Division's 1996 authorization pending Board action on this petition and completion of the Division's license renewal review process also appears to be appropriate.

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(c) California ACNF petitions the Board to evaluate the potential need to order the timely removal, packaging and off-site disposal of such waste consistent with ALARA principles and other occupational radiation safety considerations.

The purpose of petition components (b) and (c) is to minimize the liability and related harms of practices we are concerned may be incompatible with the 10 CFR Part 61 regulatory framework and inconsistent with generally accepted worker radiation protection standards.

II. Petitioner's Grounds for and Interest in the Action Requested

Due to delays in the State of California's efforts to establish a commercial low-level waste disposal facility to service the four Southwestern Compact member states and California's loss of access to the Northwest Compact's lowlevel waste site in Washington State, certain members of California ACNP or member employers have utilized or may utilize the Envirocare disposal facility. In the context of the potential regulatory deficiencies described herein, such utilization gives rise to contingent liabilities for which our members now seek timely protection. As physicians with specialized expertise in radiation protection, we also have a professional concern with worker protection related to the safe handling of nuclear power plant ion exchange resins.

III. Statement and Analysis of Specific Issues:

1. <u>California ACNP believes that financial assurance</u> requirements for closure and postclosure monitoring and <u>maintenance at the Envirocare facility may be inadequate</u>. We understand that the funding levels now set aside to carry out these activities at the Envirocare facility are considerably less than those in place for South Carolina's Barnwell disposal facility and Wathington's Richland disposal facility.

As envisioned by §61.63(a), NRC anticipated that no license would be issued prior to submittal of "a binding arrangement, such as a lease, between the applicant and the disposal site owner that ensures that sufficient funds will be available to cover the costs of monitoring and any required maintenance during the institutional control period." Utah's decision to exempt Envirocare from the 61.59(a) land ownership requirement and forgo the ability to

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January 21, 1997 Robert J. Hoffman, Chairman and Members Page -/-

> enforce funding adequacy through a revocable leasehold interest would be understandable had the state been fiscally conservative in establishing Envirocare's financial assurance requirements and otherwise stringently applied Part 61 requirements. As discussed below, this does not appear to be the case.

> As of January 1997, the Washington Department of Ecology's dedicated accounts for Site Closure (\$24.2 million) and Perpetual Surveillance/Maintenance (also \$24.2 million) for its Richland low-level radioactive waste disposal site exceed \$48 million. According to South Carolina officials, approximately \$87 million is set aside for its Barnwell site. Of this amount, \$12 million is designated for closure and stabilization and \$75 million is available for long-term care. Based on a January 16, 1996 discussion with Dane Finerfrock of the Utah Radiation Control Division, only \$5 million has been deposited with a custodian for both closure and long-term monitoring and maintenance of Envirocare's radioactive materials facilities.

> We are quite concerned about this financial assurance differential within the overall context that Envirocare is operating on private land, accepts far greater waste volumes and more diverse waste types than either the Richland or Barnwell commercial sites, and carries out storage and processing operations in addition to disposal. Unlike the Washington and South Carolina facilities, Envirocare also disposes of "mixed wastes". Moreover, we understand that large volumes of undisposed waste are often present at the Envirocare site.

> In the event this site were ordered closed prior to disposing of all of the wastes present at the facility and/or remedial actions involving buried wastes were required, it appears that very limited funds would be available. CERCLA experience teaches us that a private site owner/operator may be unwilling or unable to respond effectively necessitating government-funded actions which may later be recovered from the waste generators.

A final question, which we hope can be affirmatively answered, is whether the State of Utah (as in Washington and South Carolina) controls the \$5 million closure and longterm monitoring and maintenance fund. In other words, does the state have the ability to access the fund over the licensee's potential objections? If not, there is added reason for concern about the comparatively meager avoilable funds. January 21, 1997 Robert J. Hoffman, Chairman and Members Page -5-

> The liability exposure to petitioner's members and member employers appears to be magnified by Utah's 1996 authorization to dispose of unpackaged ion exchange resins, an authorization based on a unique practice under which radionuclide concentrations present in containerized waste arriving at the site are emptied and diluted with soil in the disposal trench to meet applicable license limits (see attached Utah Division of Radiation Control Information Notice). According to Appendix P (November 1996) of Envirocare's license renewal submittals, the company is now seeking state approval to dispose of up to 80,000 cubic feet a year of nuclear power plant resins and solidified cleaning agents.

California ACNP is concerned that the Division of Radiation 2. Control's authorization to dilute and dispose of noncontainerized ion exchange resins may be contrary to the intent of the 661.55 waste classification system, invites violation of the §61.56(b) waste stability requirements, and may violate ALARA worker exposure principles. The \$61.55 classification system for commercial low-level wastes is based on isotope concentration limits calculated on a perunit-volume basis averaged across the size of the container. Utah's decision to base license compliance on isotope concentrations achieved within the disposal trench, after diluting the waste with soil at 9:1 ratio, appears inconsistent with \$61.55 provisions for determining concentrations in the waste itself. In concept, it appears that Utah's approach allows Envirocare to accept waste at its gate which exceeds its license limits and may even exceed the §61.55 Class A limits. In the latter instance, \$61.56(b) would require specified waste form stability measures which appear to be inconsistent with Utah's requirement regarding containerized waste. Moreover, we understand that Utah's regulatory authorization to accept the resins was based on existing license conditions applicable to debris waste posing little or no radiological hazard, and that no separate state-enforced license conditions exist to protect against the radiological hazards involved in emptying resin containers and mixing the waste within the trench.

Since the technical requirements of 10 CFR Part 61 are a matter of rather strict compatibility for Agreement States, we do not understand how Utah was apparently able to redefine the application of \$61.55 without formally receiving approval from the NRC. Compatibility issues are also raised by the non-containerized disposal of commercial January 21, 1997 Robert J. Hoffman, Chairman and Members Page -6-

> low-level waste, a practice prohibited by all other commercial low-level waste sit.s and seemingly in conflict with the intent of the \$61.56 waste characteristics requirements. How, for example, is the \$61.56(a)(3) 1% volume limit on free-standing liquids currently enforced in the absence of containers? Is this requirement applied?

Utah's practices raise a series of practical concerns due to the inherent nature of ion exchange resin waste. Used to filter strontium-90, cesium-137, cobalt-60 and other fission products out of the reactor's primary coolant loop, discarded resins often require shielding to minimize worker radiation exposure. (Petitioner notes that license renewal application Appendix P makes no mention of Sr-90 and other fission products). Is the 80,000 cubic feet of resin and other cleaning wastes reflected in Appendix P an established limit? Was performance modeling performed prior to the authorization? What effect did the assumed source term increase have on the modeling? How were the resins assumed to be distributed within the disposal units?

Assuming for a moment that these matters have been fully and properly-resolved, it is difficult to understand why such potentially dangerous wastes were administratively approved under existing license conditions developed for relatively innocuous debris materials. How will Utah regulators and Envirocare ensure that applicable waste concentration limits and potential waste form stability requirements are met? How are shielding considerations during package unloading and solid mixing addressed? What measures are in place to prevent unintended dispersion of the uncontained, lightweight resin beads? Is the entire trench volume used to calculate concentration limit compliance? If so, how is this accomplished and how are potential "hot spots" accounted for? What quality assurance program requirements and facility operating procedures are in place to address each of these considerations? The import of these questions is underscored by the seemingly minimal regulatory review and public process which accompanied the state's approval of this major change in the facility's waste acceptance criteria.

Beyond the site-specific regulatory and safety considurations noted, petitioner is also concerned that the availability of comparatively inexpensive disposal capacity for large volumes of commercial nuclear power plant residues and other commercial low-level wastes will have a lethal effect on current efforts to license and open new Compact January 21, 1997 Robert J. Hoffman, Chairman and Members Page -7-

> disposal facilities pursuant to the federal Low-Level Radioactive Waste Policy Act. Since the Barnwell site has a finite remaining capacity, and the Richland site is only open to the Northwest and Rocky Mountain Compact states, Envirocare seems poised to emerge as the nation's main disposal site.

Perhaps our greatest fear is that Envirocare's cheap prices, expanding waste acceptance criteria and vast unused capacity will lead to abandonment of the new facility siting efforts now underway, and that Envirocare will indeed become the main national disposer just long enough to develop problems which force its unexpected closure. This scenario would leave our members and many other waste producers across the nation with no place to take their waste and an undesired share of potentially significant environmental restoration costs. In many ways, this fear lies at the crux of the issue.

We look forward to the State of Utah's formal reply and stand ready to help answer any questions you, the Department of Environmental Quality, or other state officials may have in considering this petition.

Sincerely,

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Carol S. Marcus, Ph.D., M.D. Director, Nuclear Med. Outpt. Clinic Harbor-UCLA Medical Center and Professor of Radiological Sciences, UCLA and President, American College of Nuclear

Physicians, California Chapter

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January 21, 1997 Robert J. Hoffman, Chairman and Members Page -8-

Attachment: May 7, 1996 Information Notice (Subject: ion exchange resin disposal)

cc w/ attachment:

Governor Michael O. Leavitt Shirley Ann Jackson, Chairman, U.S. Nuclear Regulatory Commission Dianne R. Nielson, Executive Director, Utah Department of Environmental Quality William Sinclair, Executive Secretary, Radiation Control Board and Director, Radiation Control Division Don Womeldorf, Executive Director, Southwestern Compact Members, California ACNP Board

APPENDIX P - PROJECTED WASTE STREAMS

Determination of Types, Kinds, and Quantities of Wasts

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