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To: George Powers <gep@nrc.gov>
Date: 11/22/02 1:35AM
Subject: Comments on Draft NUREG-1761

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Dear Mr. Powers:

I am uncertain that I can successfully send these initial comments on "Radiological Surveys for Controlling Release of Solid Materials" on behalf of the Sierra Club to the NRC's Web site. For that reason, I'm e-mailing them directly to you, as the Project Director, and am depositing a hard copy of these comments in the U.S. Postal Service, first class postage paid, on this night of November 21, 2002. Thank you for receiving them for consideration.

Respectfully submitted,
Judith H. Johnsrud, Ph.D., Chair
Sierra Club Nuclear Waste Working Group

SIERRA CLUB
NUCLEAR WASTE WORKING GROUP

November 18, 2002

RE: Draft

NUREG-1761:
Radiological Surveys for Controlling
Release of Solid Materials
Federal Register, August 28, 2002

Chief, Rules Review and Directives Branch
Mail Stop: T6-D59
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

ATTN: Mr. George Powers
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The following initial comments on Draft NUREG-1761, "Radiological Surveys for Controlling Release of Solid Materials," are submitted on behalf of the Sierra Club, Waste Committee, Nuclear Waste Working Group. It is our intent to supplement these general comments, and we request that the more detailed supplemental comments also be considered and adopted by the Commission.

Because of the importance to the general population, both present and future, of the potential health and safety consequences of their many additional exposures that will result from the release, recycle, and reuses of radiologically-contaminated materials, "low-level" radioactive wastes, and "mixed" radioactive and hazardous low-level wastes, we respectfully urge the Commission to reopen the public comment period for an additional 120 days.

To the best of our information there are few members of the public

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Add - George Powers (FOIP)

who are aware of this draft NUREG document, or who have had an opportunity to obtain and review its contents in order to submit comments that would be of use to the Commission's staff in preparing for the proposed regulation on "Control of Slightly Radioactive Solid Materials" (NRC Office of Public Affairs No.02-130, November 6, 2002).

The need for an additional public comment period is underscored by the NRC's announcement in advance that the proposed regulation may include adoption of a one millirem per year primary dose standard for clearance of contaminated material for further uses. The NRC also states that the proposed regulation will address: "1) continued use of...release of...contaminated solid material on a case-by-case basis; 2) recycling of 'slightly contaminated'...solid materials... [for] recycle into consumer products; 3) release of material restricted to only certain [industrial] uses or destinations, [such as] landfills; and 4) no release of such material for other uses...." Moreover, from the wording of the NRC's November 6th press notice 02-130, it is not clear that members of the public will be fully afforded the customary fora for expression of their views on the full range of impacts of this document, the proposed regulation and the expanded uncontrolled release of radioactive materials and wastes from regulation.

The public's ability to respond sufficiently to implications of NUREG-1761 is seriously impeded by the failure of the NRC to make available information on the total numbers of past case-by-case releases of materials from regulatory control, and on the nature and total quantities of materials and wastes that have been released, and on the recycled reuses and ultimate disposition of those deregulated materials and wastes. In order for the public to assess the health and safety impacts of the additional releases that are being considered by the Commission, it is essential to know what contaminated materials and how much of them already have been allowed to be recycled – and how they are now being used, where they all have gone, and who have been exposed to how many total millirem from these sources. We therefore call upon the Commission, prior to final closure of the public comment opportunity on NUREG-1761, to make available all of these data on previous case-by-case releases for all NRC licensees. This release information has been requested in the past from NRC in connection with the agency's prior studies of this method of deregulation, and has also been requested from EPA and DOE, with no response.

Executive Summary:

The solid materials that NRC states it plans to release from control include virtually any type of matter, from metals (a vast contaminated quantity exists at DOE and NRC- licensed facilities) to concrete, to soils to plastics, wood, fabrics, etc. Some, recycled, may be encountered by members of the public primarily at a distance, lessening potential for adverse biologic impacts, but others may come into direct contact for continuous, extended periods of time, such as from constantly wearing a wedding ring -- recycled contaminated gold refashioned into jewelry has been reported -- or a watch. The NRC makes clear that its primary criterion for licensees' decisions to control or release will be the comparative costs to the licensee

of isolation versus release and recycle. That criterion has nothing to do with protection of public health and safety and should not be considered in the regulatory decision-making process.

In discussion of the Data Quality Objectives (DQO) Process, the staff specifies use of "the most advantageous survey protocol" but states that it "does not provide release criteria," "assuming [that] derived concentration guideline levels for clearance (DCGLc) are available." There is then an apparent contradiction in the statement that a major requirement is that the survey results "must be able to demonstrate that clearance criteria have been met within predetermined confidence levels" – determined by whom? In order for any evaluative process to have validity, it is fundamental that the underlying assumptions and the criteria for the decision be clear and set by the regulatory evaluator, not the licensee. Those appear to be absent here, invalidating all that follows. If the goal is to protect health and safety, which is NRC's legislated mandate, it is therefore essential that the Commission abandon this approach.

A further unacceptable "requirement" lies in the second of these "major requirements" – use of "area or volume averaging." This distances further from the actuality of total doses that members of the public may ultimately receive from additive sources of "small" exposures. Contrary to contemporary research findings, here there is no hint that low-level radiation and low dose-rate exposures may be deleterious to human health. There is no indication that the Commission is abandoning its standard Standard Man as the measure for permissible exposure limits for the majority of the public who do not qualify as a young, healthy male nuclear industry worker, and who may be far more sensitive to radiation impacts than he.

The NRC, instead of proceeding on the inappropriate bases cited, should reconsider its insistence on the deregulation and release of contaminated materials and wastes. The Commission should proceed, instead, to devote attention to means of maintaining its regulatory control over truly safe (and secured) storage to full decay of hazardous life and over the long-term sequestration of all radioactive wastes that are allowed to be generated by the licensed activity.

Although, according to some researchers, there may be some degree of cellular repair following radiation injury, the repair may or may not be accurate or complete. Some claim a hormesis, or positive, impact from low-level radiation exposures but that theory is not widely accepted. The linear no-threshold dose-response conclusion in the 1990 BEIR V Report of the National Research Council's Committee on the Biological Effects of Ionizing Radiation still stands as the basis of radiation protection. ("Health Effects of Exposure to Low Levels of Ionizing Radiation" at p. 4) This means that there is no exposure to ionizing radiation, even at low levels, that is without risk of damage to a recipient, and is without benefit. In NUREG-1761, the NRC seems to presume a priori the opposite. This NRC conclusion is unquestionably arbitrary and capricious, by failing to assure protection of public health and genetic integrity from the totality of numerous involuntary, unknown and unknowable radiation exposures from multiple recycled sources to which the public will be exposed if this method of analysis is approved. No matter how sophisticated

the survey measurement techniques herein purport to be, they must not be permitted to substitute for control of radioactive contaminants rather than their release into the biosphere.

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