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STATE OF ILLINOIS

DEPARTMENT OF NUCLEAR SAFETY

(10)

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OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

November 21, 2001

Secretary
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
Attn: Rulemakings and Adjudications Staff

Re: Proposed Rule RIN 3150-AG56, amending 10 CFR Parts 2, 20, and 50
"Releasing Part of a Power Reactor Site or Facility for Unrestricted Use Before the NRC Approves the License Termination Plan"

Dear Secretary and Staff Members:

The Illinois Department of Nuclear Safety (Department) has reviewed the above referenced proposed rule. The Department's comments follow.

1. State Participation

The proposed rule is silent with regard to participation by state regulatory agencies. While there are general provisions for stakeholder input and public participation, notification, meetings and hearings, there is no explicit provision for "hands-on" involvement by state regulators. The Department would like the rule amended to include explicit provisions for state participation.

In Illinois, the role of the state in federally regulated site clearance processes has historically been that of "independent verification." This role assures that the site release process is in compliance with applicable state regulations and lends additional credibility to a process that is inherently predisposed to intense public scrutiny. Participation by the state is also important in the event that portions of the property to be released would be transferred to state ownership and/or control. For these reasons, amending the proposed rule to provide for independent verification by state regulators makes good sense.

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2. Non-Impacted Sites

The proposed rule defers to the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) for guidance in determining whether an area under consideration for partial release is impacted or non-impacted. Areas classified as non-impacted would in all likelihood be subject to release for unrestricted use without benefit of a radiological survey and the empirical data derived therefrom. NRC supports its "non-survey" position by noting that surveying a truly non-impacted area necessarily involves demonstrating that the radioactivity from any residual contamination is indistinguishable from natural background radioactivity. NRC further supports its position, at FR notice page 46231, by stating that since it has not established a minimum value above mean background to compare survey results, surveying such areas is not feasible.

The Department disagrees with NRC's reasoning because for an unrestricted release, the ALARA requirements of 10 CFR 20.1402 may dictate clean up to levels indistinguishable from natural background. ALARA notwithstanding, background must necessarily be defined to demonstrate compliance with any level of dose allowed by Part 20.1402 whether it is background or 25 mrem/yr.

The Department recognizes that proper definition of background is problematic because it is not a single value but rather a statistical distribution of values that varies widely with geographic location and other factors. Nevertheless, it is a statistical entity [mean +/- (sd x n)] that can be empirically determined on a case-by-case basis. The "minimum value above mean background against which to compare survey results" can be established by setting a reasonable value for "n" in the foregoing expression. Alternatively, the proposed rule could incorporate MARSSIM's approach wherein a comparison of statistical distributions (survey vs. background) is used to determine whether radiation levels in the area surveyed are "indistinguishable" from background. In any event, background is a reality that must be dealt with in any scenario involving release for unrestricted use.

In the case of commercial power reactor sites, background is a well-defined entity because extensive amounts of environmental radiation data have been empirically measured over several decades. Since the preponderance of these measurements reflect natural background radiation, a considerable data base statistically defining background at reactor sites is readily available.

MARSSIM's alternative to a radiological survey is a "Historical Site Investigation" wherein "existing data and professional judgment" are used to

determine whether or not an area is impacted. Except for cases where the "existing data" are from up-to-date radiation surveys, this approach is susceptible to uncertainties leading to results that are less reliable and, therefore, more difficult to defend. This is contrary to the proposed rule's stated purpose:

> "...provide adequate assurance that residual radioactivity from licensed activities that remains in areas released for unrestricted use will meet the radiological criteria for license termination. It should increase public confidence in decisions to release parts of reactor sites and make more efficient use of NRC and licensee resources."

A methodology producing less reliable and defensible results provides neither "adequate assurance" nor "increase[d] public confidence." Without contemporary and overwhelming empirical data indicating the absence of contamination, any action classifying a site as "non-impacted" supplicates challenge. In many, and possibly most cases, it might be easier and less expensive simply to survey the site. However, we recognize that this is contrary to NRC's general aversion of collecting and analyzing empirical information. Over time, this straightforward approach would likely "make more efficient use of NRC and licensee resources."

The Department appreciates the opportunity to submit these comments and looks forward to their inclusion in the final rule.

Sincerely,

Thomas W. Ortciger
Director

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