

DCD(SP03)

From: Salifu Dakubu <sdakubu@world.std.com>
To: "Tom O'Brien" <tjo@nrc.gov>
Date: Mon, Nov 8, 1999 5:05 PM
Subject: Massachusetts response to questions 42&43

Re: SP-99-074

Please find in attachment our responses.

Regards

Salifu Dakubu

SP-A-4

SP-AG-30

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In response to "question 42":

These definitions are used in Massachusetts Regulations for the Control of Radiation (MRCR):

Waste means low-level radioactive waste.

Low-level radioactive waste means radioactive material that:

- (1) is neither high-level waste, nor spent nuclear fuel, nor by-product material as defined in Section 11(e)(2) of the Atomic Energy Act of 1954, as amended, 42 U.S.C. §2014(e); and
- (2) is classified by the Federal Government as low-level radioactive waste, but not including waste which remains a Federal responsibility, as designated in Section 3(b) of the Low-Level Radioactive Waste Policy Act, as amended, 42 U.S.C. §2021c(b), as in effect as of December 8, 1987.

Disposal means the isolation of low-level radioactive waste from the biosphere inhabited by human beings and their food chains.

Table III "Releases to Sewers". The monthly average concentrations for release to sanitary sewerage are applicable to the provisions in 105 CMR 120.253. The concentration values were derived by taking the most restrictive occupational stochastic oral ingestion ALI and dividing by 7.3×10^6 (ml). The factor of 7.3×10^6 (ml) is composed of a factor of 7.3×10^5 (ml), the annual water intake by "Reference Man", and a factor of ten, such that the concentrations, if the sewage released by the licensee were the only source of water ingested by a "Reference Man" during a year, would result in a committed effective dose equivalent of five mSv (0.5 rem).

The language used here is identical to 10 CFR Part 20 Appendix B.

Byproduct material means:

- (1) Any radioactive material, except special nuclear material, yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material; and
- (2) The tailings or wastes produced by the extraction or concentration of uranium or thorium from ore processed primarily for its source material content, including discrete surface wastes resulting from uranium or thorium solution extraction processes. Underground ore bodies depleted by these solution extraction operations do not constitute "byproduct material" within this definition.

We do not have explicit definitions for "effluent", "transfer" and "release limits".

In response to question 43, we do not differentiate between "surfacial, or volumetric contamination". The release criterion is simply dose based as stated below in our regulation, 105 CMR 120.291:

120.291: Vacating Premises

Each licensee, registrant, or person possessing non-exempt sources of radiation shall, no less than 30 days before vacating or relinquishing possession or control of premises which may have been contaminated with radioactive material as a result of his activity, notify the Agency, in writing, of the intent to vacate. When deemed necessary by the Agency, the licensee, registrant, or person possessing non-exempt sources of radiation shall decontaminate the premises in such a manner that the annual total effective dose equivalent (TEDE) to any individual after the site is released for unrestricted use should not exceed ten millirem above background and that the annual TEDE from any specific environmental source during decommissioning activities not exceed ten millirem above background.