

1/2 CONTROLS AND SURVEILLANCE REQUIREMENTS**1/2.3 RADIOLOGICAL ENVIRONMENTAL MONITORING****1/2.3.2 LAND USE CENSUS****CONTROLS**

1.3.2 A Land Use Census shall be conducted and shall identify within a distance of 8 km (5 miles) the location in each of the 16 meteorological sectors of the nearest milk animal, the nearest residence, and the nearest garden* of greater than 50 m² (500 ft²) producing fresh leafy vegetation.

* Broad leaf vegetation sampling of at least three different kinds of vegetation may be performed at the UNRESTRICTED AREA BOUNDARY in each of two different direction sectors with the highest predicted D/Qs in lieu of the garden census. Controls for broad leaf vegetation sampling in Table 2.3-1 Part 4.c., shall be followed, including analysis of control samples.

APPLICABILITY: At all times.

ACTION:

- a. With a Land Use Survey identifying a location(s) that yields a calculated dose or dose commitment greater than the values currently being calculated in Control 2.2.2.3, pursuant to ODCM Administrative Controls 5.1 and 5.2, identify the new location(s) in the next Annual Radioactive Effluent Release Report.
- b. With a Land Use Census identifying a location(s) that yields a calculated dose or dose commitment (via the same exposure pathway) 20% greater than at a location from which samples are currently being obtained in accordance with the requirements of ODCM Control 1.3.1, add the new location(s) within 30 days to the radiological environmental monitoring program given in ODCM Section 9.0, if samples are available. The sampling location(s), excluding the control station location, having the lowest calculated dose or dose commitment(s), via the same exposure pathway, may be deleted from this monitoring program after October 31 of the year in which this Land Use Census was conducted. Pursuant to ODCM Administrative Controls 5.2 and 5.3, submit in the next Annual Radioactive Effluent Release Report documentation for a change in the ODCM reflecting the new location(s) with the information supporting the change in sampling locations.
- c. The provisions of SR 2.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

2.3.2 The Land Use Census shall be conducted during the growing season at least once per 12 months using that information that will provide the best results, such as by a door-to-door survey, mail survey, telephone survey, aerial survey, or by consulting local agricultural authorities. The results of the Land Use Census shall be included in the Annual Radiological Environmental Operating Report pursuant to ODCM Administrative Control 5.1.

of 40 CFR 190.11 and 10 CFR 20.2203(a)(4), is considered to be a timely request and fulfills the requirements of 40 CFR 190 until NRC staff action is completed. The variance only relates to the limits of 40 CFR 190, and does not apply in any way to the other requirements for dose limitation of 10 CFR 20, as addressed in ODCM Controls 1.2.1.1 and 1.2.2.1. An individual is not considered a MEMBER OF THE PUBLIC during any period in which he/she is engaged in carrying out any operation that is part of the nuclear fuel cycle. Demonstration of compliance with the limits of 40 CFR 190 or with the design objectives of Appendix I to 10 CFR 50 will be considered to demonstrate compliance with the 0.1 rem limit of 10 CFR 20.1301.

The requirements for evaluating compliance with 40 CFR 302 are added to ensure compliance with these limits. The regulation states that federally permitted releases do not have to determine compliance with the reportable quantities unless the permitted release allowance is exceeded.

1/2.3 RADIOLOGICAL ENVIRONMENTAL MONITORING

1/2.3.1 MONITORING PROGRAM

The Radiological Environmental Monitoring Program required by this Control provides representative measurements of radiation and of radioactive materials in those exposure pathways and for those radionuclides that lead to the highest potential radiation exposures of MEMBERS OF THE PUBLIC resulting from the plant operation. This monitoring program implements Section IV.B.2 of Appendix I to 10 CFR 50 and thereby supplements the Radiological Effluent Monitoring Program by verifying that the measurable concentration of radioactive materials and levels of radiation are not higher than expected on the basis of the effluent measurements and modeling of the environmental exposure pathways. Guidance for this monitoring program is provided by the Radiological Assessment Branch Technical Position on Environmental Monitoring, Revision 1, November 1979. The initially specified monitoring program will be effective for at least the first three years of commercial operation. Following this period, program changes may be initiated based on operational experience.

The required detection capabilities for environmental sample analyses are tabulated in terms of the lower limits of detection (LLDs). The LLDs required by Table 2.3-3 are considered optimum for routine environmental measurements in industrial laboratories. It should be recognized that the LLD is defined as an a priori (before the fact) limit representing the capability of a measurement system and not as a a posteriori (after the fact) limit for a particular measurement.

Detailed description of the LLD, and other detection limits can be found in HASL Procedures Manual, HASL-300, Currie, L. A., "Limits for Qualitative Detection and Quantitative Determination - Application to Radiochemistry," Anal. Chem. 40, 586-93 (1968), and Hartwell, J. K., "Detection Limits for Radioanalytical Counting Techniques," Atlantic Richfield Hanford Company Report ARH-SA-215 (June 1975).

1/2.3.2 LAND USE CENSUS

This Control is provided to ensure that changes in the use of areas at and beyond the UNRESTRICTED AREA BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of that census. The best information from the door-to-door survey, mail survey, telephone survey, aerial survey, or by consulting with local agricultural authorities shall be used. This census satisfies the requirements of Section IV.B.3 of Appendix I to 10 CFR 50. Restricting the census to gardens of greater than 50 m² provides assurance that significant exposure pathways via leafy vegetables will be identified and monitored since a garden of this size is the minimum required to provide the quantity (26 kg/y) of leafy vegetables assumed in Regulatory Guide 1.109 for consumption by a child. To determine this minimum garden size, the following assumptions were used, 1) that 20% of the garden was used for growing broad leaf vegetation (i.e., similar to lettuce and cabbage), and 2) a vegetation yield of 2 kg/m².