

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 the location of the nearest milk animal, the nearest residence and the nearest garden¹ of greater than 500 square feet producing vegetables in each of the 16 meteorological sectors within a distance of 5 miles. (For elevated releases as defined in Regulatory Guide 1.111, Revision 1, July 1977, the land use census shall also identify the locations of all milk animals and gardens of greater than 500 square feet producing fresh leafy vegetables in each of the 16 meteorological sectors within a distance of three miles.)

¹ Broad leaf vegetation sampling may be performed at the SITE BOUNDARY in the direction sector with the highest D/Q in lieu of the garden census.

APPLICABILITY: At all times.

ACTION:

With a land use census identifying a location(s) which yields a calculated dose or dose commitment greater than the maximum value currently being calculated in Section 7.5, identify the new location(s) in the next Annual Radiological Environmental Operating Report.

With a land use census identifying a location(s) that yields a calculated dose or dose commitment (via the same exposure pathway) 20 percent greater than at a location from which samples are currently being obtained in accordance with ODCM Control 1.3.1, add the new location(s) to the REMP within 30 days if the owner consents. 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. Identify the new location(s) in the next Annual Radiological Environmental Operating Report and provide a revised figure(s) and table(s) reflecting the new location(s).

SURVEILLANCE REQUIREMENTS

(see next page)

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SURVEILLANCE REQUIREMENTS

2.3.2 The land use census shall be conducted at least once per calendar year between the dates of April 1 and October 1 using the following techniques:

1. Within a 2-mile radius from the plant or within the 15 mrem per year isodose line, whichever is larger, enumeration by a door-to-door or equivalent counting technique.
2. Within a 5-mile radius from the plant, enumeration by using appropriate techniques such as door-to-door survey, mail survey, telephone survey, aerial survey, or information from local agricultural authorities or other reliable sources.

BASES

1/2.3 RADIOLOGICAL ENVIRONMENTAL MONITORING

1/2.3.1 MONITORING PROGRAM (continued)

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. The REMP satisfies the requirements of 10 CFR 50, Appendix A, Criteria 64 and 10 CFR 50, Appendix I, Section IV.B.2.

1/2.3.2 LAND USE CENSUS

This requirement is provided to ensure that changes in the use of UNRESTRICTED AREAS are identified and that modifications to the monitoring program are made if required by the results of this census. The best survey information from the door-to-door, mail, telephone, aerial or consulting with local authorities shall be used. This census satisfies the requirements of Section IV.B.3 of Appendix I to 10 CFR Part 50. Restricting the census to gardens of greater than 500 square feet provides assurance that significant exposure pathways via the leafy vegetables will be identified and monitored since a garden of this size is the minimum required to produce the quantity (26 kg/year) of leafy vegetation 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/square meter.

1/2.3.3 INTERLABORATORY COMPARISON PROGRAM

The requirement for participation in an Interlaboratory Comparison Program is provided to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring in order to demonstrate that the results are reasonably valid.

9.1 MONITORING PROGRAM DESCRIPTION

A Radiological Environmental Monitoring Program (REMP) as described in Tables 9.1, 9.2, and 9.3 and in Figures 9.1, 9.2, and 9.3 shall be conducted. Results of this program shall be reported in accordance with ODCM Administrative Control 5.1.

The atmospheric REMP shall consist of 11 monitoring stations from which samples of air particulates and radioiodine shall be collected.

The terrestrial monitoring program shall consist of the collection of milk, soil, drinking water, and food crops as provided in Tables 9.1 and 9.2. In addition, direct gamma radiation levels will be measured at 40 or more locations in the vicinity of the plant.

The reservoir sampling program shall consist of the collection of samples of surface water, sediment, and fish.

9.2 DETECTION CAPABILITIES

Analytical techniques shall be such that the detection capabilities listed in Table 2.3-2 are achieved.

9.3 LAND USE CENSUS

A land use survey shall be conducted in accordance with the requirements in Control 1.3.2. The results of the survey shall be reported in the Annual Radiological Environmental Operating Report.

9.4 INTERLABORATORY COMPARISON PROGRAM

Analyses shall be performed on radioactive materials supplied as part of an Interlaboratory Comparison Program which has been approved by the NRC. A summary of the results obtained in the intercomparison shall be included in the Annual Radiological Environmental Operating Report.

If analyses are not performed as required corrective actions taken to prevent a recurrence shall be reported in the Annual Radiological Environmental Operating Report.