11.0 ENVIRONMENTAL MONITORING AND CONTROL PROGRAM

NUREG-1727 specifies that the licensee or responsible party have an environmental monitoring and control program that ensures adequate protection of workers, the public, and the environment from ionizing radiation during decommissioning activities. Under the "no action" alternative, the decommissioning activities yet to be performed at the site involve only passive activities in which the amounts of licensed radioactive materials that are expected to be encountered or handled are already significantly below the applicable limits and DCGLs or are indistinguishable from background radioactivity. As a result, there is no real potential for decommissioning activities to expose workers, the public, or the environment to radiological contamination and the MDNR is not proposing to perform environmental monitoring of decommissioning activities.

11.1 ENVIRONMENTAL ALARA EVALUATION PROGRAM

The purpose of an environmental ALARA program is to ensure releases during decommissioning activities are maintained ALARA. The MDNR has determined that the no action approach to decommissioning is the ALARA alternative, in part because it is the alternative that assures that environmental releases will not cause decommissioning-related exposures to workers, the public, or the environment. Planned decommissioning activities are expected to result in no environmental releases of licensed radioactive materials. As a result, an evaluation to demonstrate that releases of radioactive material to the environment during decommissioning will be ALARA is not required. Furthermore, dose modeling performed to derive the subsurface soil source term DCGL (Section 5.0) shows that the site could be released for unrestricted purposes without any decommissioning activities because the site meets the radiological criteria for unrestricted use now, and will continue to do so into the future. Likewise, dose modeling of the hypothesized surface soil source term reveals that it is prohibitively unlikely that concentrations of residual radioactivity in surface soils could be high enough to preclude unrestricted use of the site now.

11.2 EFFLUENT MONITORING PROGRAM

Under the no action alternative, no effluent will be released to the environment during decommissioning activities. Previous environmental and offsite samples and surveys collected over the years support the conclusion that measurable effluent releases have not occurred. Thorium-bearing slag deposits are confined to the area circumscribed by the slurry walls of the containment cell. Fate and transport calculations, supported by in-cell leachate sampling, suggest that the residual radioactivity at the site is immobile and that significant migration is of the radioactive constituents is extremely unlikely. Therefore, the MDNR has not developed an effluent monitoring program for decommissioning.

There are no surface water features on the site, and no nearby surface water features are affected by radioactive materials at the site. Monitoring data show that radioactive

constituents at the site are not present in groundwater at detectable levels or at levels distinguishable from background. Radioactivity in groundwater is expected to remain at background levels or to be insignificant, in terms of both detectable concentration and dose impacts, for 1,000 years after license termination.

11.3 EFFLUENT CONTROL PROGRAM

As stated above, no effluent will be released to the environment during decommissioning under the no action alternative. In addition, there has not been, nor is there expected to be, measurable concentrations of licensed radioactive materials in effluents from the site. Therefore, the MDNR has not designed an effluent control program.