

A Radiation Survey and Site Investigation (RSSI) for the landfill property site will be conducted to determine the level and extent of contamination and include measurement of background radiation sources from an analysis of underlying geology. The RSSI will also include activities necessary to demonstrate compliance with 902 KAR 100:022 section 18. The RSSI will include the waste disposal cell, sedimentation pond, stormwater runoff and leachate. The RSSI will also include a spectroscopy analysis of waste constituents and site background rock and soil samples to identify the isotopes present. An American Board of Health Physics (ABHP) certified health physicists (CHP) will conduct a dose assessment to determine the total effective dose equivalent as defined in 90 KAR 100:010 section 1(312) of the exposed on-site and off-site receptors based on present operations at the landfill and include dose reconstruction from previous disposal activities of radioactive waste. Internal radiation dosimetry from radionuclides will be assessed for all exposure pathways along with exposure pathway modeling with particular attention to inhalation, deposition on skin/clothing and ingestion of radionuclide sources. Records relating to this dose assessment will be retained per 902 KAR 100:019, Section 34 and shall be provided as required by 902 KAR 100:165, Section 3. The results and methodology of the RSSI and the dose assessment will be provided to the cabinet for review.

All sampling activities including any core sampling will incorporate temporary HEPA filtered negative air containment enclosures to control and remove fugitive dust, particles, and airborne contaminants generated during site activities to prevent the spread of contamination from designated work areas.

All monitoring activities and analyses will be conducted by licensed laboratories. All contractors will follow appropriate procedures and have recognized certifications in their respective areas from organizations including, but not limited to the ABHP (American Board of Health Physics), ICRP (International Committee on Radiation Protection), 1CRU (International Commission on Radiation Units and Measurements), IRPA (The International Radiation Protection Association) and the NEFAP (National Environmental Field Activities Program) for accreditation of FSMOs (Field Sampling and Measurement Organization).

A QAPP (Quality Assurance Project Plan) will be submitted that encompasses all site work at the landfill that is part of the above describe work.