Appendix F: Safety and Health Plan

The mission statement for safety and health at Kimballton is as follows: *Through proactive training and proper facility design by experienced engineers, the life safety and health each individual working at Kimballton DUSEL will not be compromised.* This guiding vision will be used during each engineering phase, construction and operation. During S-2, health and safety issues will be addressed and appropriate programs implemented through the following tasks.

1. Specific codes, standards and regulations applicable to Kimballton DUSEL include the International Building Code (IBC); International Fire Code (IFC); International Mechanical Code (IMC); the State of Virginia Uniform Statewide Building Code and Fire Prevention Code; and, the National Fire Protection Association (NFPA) code, under which the facility is classified as an underground building.

2. Develop and incorporate design-level life safety elements including, but not limited to: multiple routes of egress to underground spaces; smoke proof areas of refuge, along access routes; smoke detection, control and exhaust systems; sprinkler systems; emergency power and lighting; personnel tracking sensors, and other elements.

3. Implement worker safety training and monitoring procedures. Activities at Kimballton DUSEL are regulated by the Occupational Safety and Health Administration, the Mine Safety and Health Administration and Division of Mines, Minerals, and Energy. Starting with S-2, the management structure of Kimballton DUSEL will include a Safety and Health Officer that will report directly to the project Director. Programs and plans for training scientists, engineers and student scientists working on site characterization and engineering studies will be developed. Contractors and consultants will be required to show proof of training. The Virginia Tech Office of Environmental Health and Safety Services will assist the project team in the initial stages of preliminary engineering to coordinate worker health and safety procedures and monitoring.

4. Develop common health and safety procedures with mine portions of the laboratory. This will require that DUSEL personnel conducting S-2 characterization and engineering studies in the mine have safety training from the National Mine Health and Safety Academy.

5. Develop containment designs, emergency response procedures and protocols for handling of any flammable materials, cryogens and oxygen-displacing gases.

6. Develop procedures for safe transport of materials from the surface to the underground laboratory and incorporate these into the facility design.