

6. Is this authorization to be used for providing communications essential to a research project? (The radio communication is not the objective of the research project)? If "YES", include as an exhibit the following information:

a. A description of the nature of the research project being conducted.

Testing a variety of radiators for their RF and magnetic propagation properties in both above ground and underground environments to provide data for development of effective in-mine wireless communications.

b. A showing that the communications facilities requested are necessary for the research project.

The entire thrust of the project is radio communications.

c. A showing that existing communications facilities are inadequate.

This program is the result of various laws to develop effective in-mine communications and reporting systems. Current systems are mostly wire based, support only audio communications and are susceptible to failure from cave-ins and the like.