

P25 Two Way Mobile Radio Replacement

The majority of BPA's fixed radio equipment is at least 20 years old. The manufacturer no longer supports the system or provides replacement parts. Since there is a lack of available spare parts, two way radio failures may pose significant system reliability and safety risks to the agency.

An additional driver for replacement is a change in frequency allocation. National Telecommunications and Information Administration (NTIA) grants BPA and all other federal agencies licenses to use radio spectrum. BPA currently uses some frequencies that are being recalled. BPA will lose channels 3 and 4 in January 2012. NTIA is also likely to mandate narrow-banding which will require BPA to upgrade the existing analog VHF system. Narrow-banding is necessary to meet new technical standards for receivers to minimize interference and improve efficiency of frequency use. Federal radio systems that do not meet the deadline for narrowband system requirements would revert to secondary status. This means that BPA could lose frequencies to other federal users who would have the required narrowband systems.

The proposed system is a VHF single channel conventional digital P25 system. The new system proposes utilizing 12.5 kHz channel initially with the capability of migrating to 6.25 kHz channel in the future to meet NTIA mandates that require use of spectrum efficient technologies to meet growing demand for access to the 162-174 MHz and 406.1-420 MHz bands by federal agencies.

This project is a key component of the Upgrade and Sustain Program strategy for Power Systems Control (PSC) and telecommunications modernization. Because the existing analog two way radio is no longer supported, BPA will only be able to keep the system operational for a limited amount of time.