

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
Nuclear Energy Institute and Utilities)	WT Docket No. 09-176
Utilities Telecom Council Request for)	
Waiver to Permit the Use of Two-Way)	
Wireless Headsets and Intercom Devices)	
Inside Nuclear Power Plants)	

To: Chief, Wireless Telecommunications Bureau

COMMENTS OF ARIZONA PUBLIC SERVICE COMPANY

Arizona Public Service Company (“APS”), by its attorneys and pursuant to the Federal Communications Commission’s (“FCC” or “Commission”) Public Notice¹, hereby files comments in support of the above-referenced petition (“Petition”) filed by the Nuclear Energy Institute (“NEI”) and Utilities Telecom Council (“UTC”) seeking an expedited waiver to permit the use of Part 74 frequencies in connection with the use of two-way wireless headsets inside nuclear power plants.

APS is the operator and co-owner of the Palo Verde Nuclear Generating Station (“Palo Verde”), a primary source of electricity for the Southwest. To ensure Palo Verde’s ability to continue to provide safe, reliable energy to citizens of Arizona, California, New Mexico and Texas, APS purchased and has been using wireless intercom and telecommunications equipment manufactured by Telex Communications, Inc. (“Telex”) and has been operating such equipment on Part 74 frequencies pursuant to Special Temporary Authority and experimental authorization

¹ *Wireless Telecommunications Bureau Seeks Comment on Request by Nuclear Energy Institute and Utilities Telecom Council for Waiver to Permit the Use of Part 74 Two-Way Wireless Headsets and Intercom Devices Inside Nuclear Power Plants*, Public Notice, DA 09-271, WT Docket No. 09-176 (rel. October 5, 2009).

granted by the Commission.² The Telex equipment consists of encrypted audio wireless intercom devices that are used inside the Palo Verde shielded containment vessels or cool containment areas where reliable communications is essential to ensure safe plant operation and to reduce worker exposure to allowable levels of radiation consistent with applicable safeguards.

APS fully supports grant of the limited waiver requested by NEI and UTC. As the Petition correctly notes, the Telex equipment serves a critical public safety need by facilitating the continued safe and efficient operation of nuclear power facilities. APS relies on the Telex equipment for constant and reliable communications to ensure worker and plant safety during important operations such as nuclear fuel reloads. Although APS's use of the Telex equipment is limited to the period immediately preceding and during scheduled outages³, such use involves critically important activities at the facility, including the process of moving nuclear fuel, coordinating the movement of vital nuclear reactor components, and communicating with plant workers to regulate their exposure to harmful radiation.

As the Petition correctly notes, there is no way to entirely prevent radiation exposure to workers during these sensitive but critical activities. The use of reliable communications equipment ensures that the number of workers exposed to radiation and the duration of such exposure are kept to the absolute allowable minimum. Expending maximum efforts to ensure the minimum amount of radiation exposure is not only mandated by APS' commitment to its

² Given that APS's current experimental authorization to operate its Telex headsets on Part 74 frequencies is due to expire on February 18, 2010, APS supports the Petition's request for expedited treatment. In light of scheduled outages after that date, APS will need to rely upon less reliable equipment that may not function in the Palo Verde environment if the Petition is not acted on by the end of the year.

³ Refueling outages at Palo Verde are scheduled twice a year and typically last approximately 35 to 40 days. In addition to operating equipment during outages, APS operates the equipment approximately two to three weeks prior to each scheduled outage for training purposes.

workers' safety, it is mandated by federal law.⁴ Accordingly, reliance on any but the most reliable communications equipment is simply not an option.

APS has invested in the Telex equipment for one simple reason: it is vastly superior to other available equipment alternatives in terms of both functionality and reliability. Based on APS's experience, each of the critical features identified by NEI and UTC as "Requisite Performance Features" are critical to safe and efficient operation within the containment areas at Palo Verde. These features include wireless operation (wires pose a hazard to workers and equipment); hands-free use; full-duplex communications among multiple users; reliable signals, generally with no call drop; no background noise; no inadvertent actuation⁵; uninterrupted voice transmission; ease of use; and durability. The Telex equipment meets each of these requirements. No Part 90 equipment currently on the market is capable of meeting each of these requirements. Tests of alternative equipment options have demonstrated that each alternative has one or more material shortcomings, including multi-path interference; insufficient voice quality; inadequate capacity for multiple headsets in simultaneous use; inadequate coverage; and interference with other wireless equipment such as electronic personal dosimeters ("EPDs") that measure worker radiation exposure.⁶

Grant of the requested waiver is consistent with the public interest. In addition to the substantial public safety benefits discussed above, the limited nature of the usage of the Telex equipment ensures that there will be no interference to licensed users. In the five years that APS

⁴ 47 C.F.R. § 20.1003 (plants must make "every reasonable effort to maintain exposures to radiation as far below the dose limits in this part as is practical").

⁵ Although APS has been fortunate to never experience an instance of actuation (inadvertent activation of plant equipment caused by spurious radio frequency interference), it is well aware that its Telex equipment strongly militates against such occurrences.

⁶ Petition at p. 14.

has operated the Telex equipment, there has not been a single instance of interference.

Moreover, the Petition demonstrates that there is no record of interference by nuclear plant users of the Telex equipment to other licensees' transmissions.

The conditions under which APS operates its Telex equipment ensure that there will be no interference to Part 74 licensees. The equipment is operated: (1) only during limited periods immediately prior to and during refueling outages; (2) only indoors; (3) in steel fortified, thick-walled concrete buildings⁷; and (4) at extremely low power (less than 250 milliwatts).

Moreover, use of the equipment is separated from the public not only by fortified and thick walled containment areas, but by the large, remote site on which Palo Verde is located. The results of tests conducted by APS at Palo Verde demonstrate that signals from the headsets, while operating at maximum authorized power, do not extend outside of the containment area, which is itself separate from the nearest private residence by nine tenths of a mile. Accordingly, there is no possibility of interference to licensed users.

Absent the requested waiver, APS and other nuclear power plant operators would be forced to acquire and utilize less reliable communications equipment for use in nuclear containment facilities, which may compromise worker health and safety. Due to the public safety benefits of allowing continued use of the Telex equipment at Palo Verde and other nuclear

⁷ Use of Telex equipment occurs behind over six feet of concrete in the containment building of APS's plant.

facilities, and because there is no risk of interference to licensed users, waiver is in the public interest. For these reasons, and because there are no reasonable alternatives to the Telex equipment, there is good cause for grant of the requested waiver.

Respectfully submitted,

ARIZONA PUBLIC SERVICE COMPANY

/s/ Donald L. Herman, Jr.

By: _____

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