

**EXHIBIT TO
APPLICATION FOR RENEWAL OF
EXPERIMENTAL LICENSE**

The following information is submitted in support of the application of Duke Energy Carolinas, LLC (“Licensee”) for renewal of its Experimental License to use certain Telex wireless headsets at a nuclear power plant operated by Licensee

A. Background

The FCC issued Experimental Licenses to the operators of nuclear plants beginning in the summer of 2007 (the “Experimental Licenses”) to test the use of two-way wireless headsets and intercom devices at nuclear power plants. The Experimental Licenses were renewed in late 2008, and are now scheduled to expire on February 17, 2010. Licensee seeks to renew its Experimental License.

As described in the original applications for Experimental License, communication inside and around a nuclear reactor is a great challenge, not only because the concrete and steel walls can be as much as four (4) feet thick and the built-in shielding of the reactor dome tends to serve as a deflector of certain wireless communications, but also because the need for reliable and effective communication is so critical. Under Nuclear Regulatory Commission (“NRC”) rules, licensed plants have the regulatory and licensing obligation to “make every reasonable effort to maintain exposure to radiation as far below NRC-established dose limits as is practical . . . (see 10 C.F.R. § 20.1003 et seq.) in order to protect plant workers from harmful doses of radiation (e.g., while they perform safety and maintenance operations in and around the nation’s nuclear plants).

The commercial nuclear industry’s use of certain Telex wireless intercom equipment (the “Equipment”) serves the twin objectives of effective communication and facilitating protection of workers from unhealthy levels of radiation by providing communications features (wireless, hands-free, full duplex/multi-user, reliable, no “call drops,” no background noise, no inadvertent actuation, uninterrupted voice transmission, ease of use, and durability) that permit plant workers to efficiently conduct routine maintenance as well as activities required to be performed in an “outage” (when used (irradiated) fuel is replaced with fresh (non-irradiated) fuel and the used fuel is carefully moved to storage facilities). That is, the Equipment directly contributes to the protection of the health and safety of plant workers, as efficiencies gained from its use limit nuclear plant workers’ occupational exposure.

Licensee has used the Equipment in compliance with the terms of its Experimental License and requests renewal of its Experimental License on the same terms and conditions. Licensee notes that the Nuclear Energy Institute and the Utilities Telecom Council filed a Petition for Waiver with the Commission on July 16, 2009, and amended on September 23, 2009, seeking waiver of Parts 2 and 90 of the Commission’s Rules so that Licensee and similarly-situated licensees may apply for licenses under Part 90 of the Commission’s Rules to use the Equipment for indoor-only

operation at nuclear power plants.¹ On October 5, 2009, the Commission requested comment on the Petition for Waiver.² As of this date, the Petition for Waiver remains pending at the Commission. Although grant of the Petition for Waiver and subsequent grant of a Part 90 license based on such waiver would obviate the need for renewal of this Experimental License, Licensee needs assurance of continuing authority to operate the Equipment past the current February 17, 2010, expiration date of the Experimental License.

B. Proposed Experiments

The plants intend to continue to conduct experiments using the Equipment, as well as other equipment that may serve as alternatives to the Equipment, as described in the original application for Experimental License and in the application for renewal of license. As further support for this request, in addition to the summary provided in the Petition for Waiver, Licensee attaches a complete copy of the “Background, Current Data & Justification for Waiver of FCC’s Rules to Allow Continued Use of Telex Equipment at Nuclear Power Plants.” This power point was presented to the FCC in April, 2009 and provides more complete descriptions of the alternatives tested at many of the plants, and the challenges associated with each potential alternative.

C. Continuing Need

The Licensee needs to continue conducting experiments comparing the Equipment and potential replacement equipment against a series of situational communications objectives within and around the plant. This program of experimentation continues to contribute to the development, extension, expansion and utilization of best communications practices inside and around nuclear plants. Continued authorization of the Equipment will allow Licensee to further its research and development of best practices. This fact, together with the NRC mandates and the compelling desire to protect plant workers from unhealthy doses of radiation, will contribute to an understanding of whether this or other equipment will best meet the plant’s safety and communications needs. Continued authorization of the Equipment will allow the plant to further its objectives as plant equipment changes.

Licensee therefore respectfully requests a one-year renewal of the Experimental License identified in the accompanying application, or at least until Licensee is able to secure a license for this Equipment under Part 90.

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¹ See “Petition for Waiver,” filed July 16, 2009, and amended September 23, 2009, in WT Docket No. 09-176.

² “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 09-2171, released October 5, 2009.