## **EXHIBIT TO EXPERIMENTAL LICENSE RENEWAL APPLICATION**

## A. <u>Background</u>.

In 2007, The Nuclear Energy Institute ("NEI"), the Utilities Telecoms Council ("UTC"), Maximum Service Television ("MSTV"), the National Association of Broadcasters ("NAB"), and the Society of Broadcasters ("SBE") agreed to a Consensus Plan through which the Broadcast parties permitted nuclear plants to continue to use Telex communications equipment, subject to certain power restrictions, geographic limitations, frequency coordination and FCC reporting requirements. In November 2008, the plan was amended to revise Section IV(H).

The FCC issued experimental licenses to the nuclear plants beginning in the summer of 2007 (the "Experimental Licenses"). These Experimental Licenses have been operated consistent with the Consensus Plan but will expire on February 17, 2009. Applicant seeks to renew its Experimental License.

As also described in the original application for Experimental License, communication inside and around a nuclear reactor is a great challenge, not only because the walls can range in width from 4 inches to 4 feet of concrete 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.

## B. <u>Proposed Experiments</u>.

The plants intend to continue to conduct experiments using the Equipment, as well as other equipment that may serve as alternatives to the Equipment, through which they will establish a series of situational communications objectives within and around the plant and track the operating performance benchmarks for each objective. As previously reported by NEI, UTC and the plants in their License Reports, at least five (5) different types of alternative equipment during the license term, however, no suitable alternative equipment is currently available.

The specific objectives to be accomplished:

Continued efforts to prioritize the operating features of the Equipment in order to inform our RFP on replacement equipment.

Continued efforts to establish performance benchmarks and power matrix in order to inform our RFP.

Continued efforts to evaluate new equipment entrants against the priorities and benchmarks established using the Equipment.

Creation of best practices generally for communicating in and around the nuclear plants, both with the Equipment and other equipment and methods.

Of particular interest is the simultaneous operation in many of the plants of the Equipment (together with all potential replacement equipment) and the electronic dosimeters, most of which operate at 2.4 GHz. Electronic dosimeters are worn by many plant employees while they participate in operations involving exposure to radiation. The dosimeter device measures the dose in real time and transmits the readings back to the communications control center, which is also the venue from which the safety experts communicate, via the Equipment, with the plant employees. In fact, it is often the case that the communication via the Equipment is to instruct the plant worker to move one way or another, in order to avoid areas where the dosimeter indicates there exist high doses of radiation.

While the simultaneous use of the Equipment with the 2.4 GHz dosimeter devices has not caused interference to either device (or, worse, caused one or both to shut down), the experiment will allow certain plants to test other equipment operating at the 2.4 GHz band to evaluate whether it can operate simultaneously with the dosimeter device. It will be important to experiment on the best practices for such simultaneous operation and to determine, as best one can, how far apart on the spectrum chart these often simultaneous transmissions must be, in order to avoid interference/shutdown.

## C. <u>Continuing Need</u>.

The plants need 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 the radio frequency because there has not previously been a full study of best communications practices inside and around nuclear plants. Continued authorization of the Equipment will allow the plants to further their 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 the development of alternative equipment that may be capable of operating under Part 90 and meeting the plants' safety and communications needs. Continued authorization of the Equipment will allow the plants to further their their objectives as plant equipment changes.