

February 28, 2008

Via Electronic Filing

Ms. Marlene Dortch, Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, D.C. 20554

**Re: Nuclear Energy Institute/Utilities Telecom Council Request for Waiver  
ET Docket No. 05-345 – Amended Report**

Dear Ms. Dortch:

Pursuant to the agreement among the Nuclear Energy Institute (NEI), Utilities Telecom Council (UTC), National Association of Broadcasters, Association for Maximum Service Television and the Society of Broadcast Engineers (SBE) filed on April 9, 2007 in the above-referenced docket (the "Agreement"), NEI and UTC submit this report concerning the continued use of Part 74-authorized headsets at nuclear power plants (the "Plants"). Section IV(F) of the Agreement calls for periodic reports, due based on the dates on which nuclear power plants obtain experimental licenses for use of Telex Part 74-authorized headsets (the "Telex Equipment"), "regarding their efforts to identify or develop equipment that operates in Part 90, or other frequencies for which the Plants are eligible, and which is capable of satisfying the Plants' communication and safety needs." This document is the first of such agreed-upon reports.

**Need for the Telex Equipment**

The use of, and continued need for, the Plants' purchased Telex Equipment remains widespread. As stated previously by NEI/UTC, 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 nuclear power industry's use of the Telex wireless intercom equipment serves the twin objectives of effective communication and facilitating protection of workers from unhealthy levels of radiation by providing communications features that permit plant workers to conduct routine maintenance efficiently. The Telex Equipment also enables safe performance of activities required to be performed in a scheduled outage, when

used (irradiated) fuel is replaced with fresh (non-irradiated) fuel and the used fuel is carefully moved to storage facilities. The industry has identified equipment features it considers necessary to worker safety: that it be wireless, hands-free, have full-duplex/multi-user capability, be reliable with no "call drops," no background noise and no inadvertent actuation; have uninterrupted voice transmission, ease of use, and durability. As such, the Telex 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.

Pursuant to the Agreement, Plants wishing to continue to use the Telex Equipment were required to apply for experimental licenses with the Commission's Office of Engineering and Technology (OET), using FCC Form 442.<sup>1</sup> Such licenses had to be obtained prior to the expiration, on January 6, 2008, of the Special Temporary Authority (STA) granted to the industry. All experimental licenses granted to the Plants will expire on February 18, 2009, simultaneous with the digital television transition deadline.

NEI and UTC believe that the number of Plants applying for the necessary experimental licenses is the best indicator of their continued need for the Telex Equipment. The industry associations, therefore, have monitored this information to the extent it is available publicly from OET. We believe the list below is roughly, but may not be precisely, accurate:

### **Plants Granted Experimental Licenses**

1. Exelon Generation
2. Duke Energy
3. AmerGen Energy Co., LLC (2 granted)
4. Energy Northwest (2 granted)
5. Nebraska Public Power District
6. Florida Power and Light (4 granted)
7. Indiana Michigan Power
8. Entergy Services (2 granted)
9. Omaha Public Power District
10. PSEG Services Corporation
11. Dominion Nuclear
12. Southern California Edison (2 granted)
13. STP Nuclear Operating Co.
14. PPL Susquehanna
15. Southern Company Services, Inc. (3 granted)
16. Wisconsin Electric Power Co. (2 granted)
17. Constellation Generation Group
18. DTE Energy (Detroit)

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<sup>1</sup> Since some of the Telex Equipment operates on frequencies shared with the Federal government (150-216 MHz), many Plants also were required to seek approval from the National Telecommunications and Information Administration (NTIA) as part of this process.

19. TXU Business Services Corporation
20. First Energy Nuclear
21. Pacific Gas & Electric
22. Wolf Creek Nuclear Operating Corp.
23. Nuclear Management (Prairie Island)
24. Progress Energy
25. Tennessee Valley Authority

By contrast, very few Plants known to be using Telex equipment in the past are not believed to have filed for experimental licenses:

1. Union Electric
2. North Atlantic Energy Service Corp.<sup>2</sup>

Thus, it is clear that the nuclear power industry has considerable continued need for the Telex Equipment for their internal communications needs.

### **Development of Alternative Equipment**

NEI and UTC are very aware of their responsibility to continue to search for alternative, Part 90- or Part 15-authorized equipment that will meet the Plants' needs. UTC has informed its associate members that are equipment manufacturers of the Plants' needs and our obligation to find an alternative. UTC and NEI also have canvassed their Plant members – whose telecom management has internal responsibility to remain current regarding available equipment – concerning their own efforts to find an acceptable alternative.

### **Part 90**

At present, no known Part 90 equipment manufacturer is offering or developing a full-duplex headset that will meet the Plants' needs. While Telex formerly offered a line of Part 90 headsets, it no longer produces this equipment. UTC believes that rapid development of headsets with the necessary features is unlikely, due primarily to economies of scale and limited demand, compared with the cost of development and the limitations posed by the regulatory framework of most Part 90 frequency bands. However, we will continue to request such equipment, while maintaining the safety of nuclear power personnel as the paramount goal in this effort.

### **Other Equipment**

UTC members have been informed of wireless headset equipment from two manufacturers, neither of which is Part 90-authorized. Headsets manufactured by ClearCom operate on 1.9 GHz PCS frequencies, which would require subscription to third-party service and raises reliability concerns. Another manufacturer, HME, also offers wireless two-way headsets; however, this equipment as shown on the company's

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<sup>2</sup> This record is believed to be accurate; however, Plants may file applications under various operating or holding company corporate names.

website operates on the 2.4 GHz unlicensed frequency band. As NEI and UTC have noted previously in this docket, many Plants have important other systems, including radiation dosimeters, also operating on the 2.4 GHz band. Use of headsets operating on the same frequencies in close proximity is not advisable, as such other systems must not suffer interference to their operations. In spite of the limitations inherent in the equipment of which we have been informed to date, UTC, NEI and their member utilities will continued to investigate these and other offerings. UTC has been notified of only one Plant, owned by Energy Northwest, that has adopted alternative equipment operating in the 900 MHz band. It should be noted, however, that Energy Northwest is among the utilities that applied for an experimental license (in fact, two licenses were granted) so that it can continue to operate Telex Equipment where needed at its Plants.

NEI and UTC are aware that the term of the experimental licenses will run quickly, and both associations repeatedly receive inquiries from their members concerning a continuing solution. We will continue to honor our obligations under the terms of the Agreement to notify our members concerning their responsibilities to coordinate use of the Telex equipment with SBE; to use the frequencies on a secondary, non-interfering basis;<sup>3</sup> to submit reports concerning their use of Telex Equipment; and to notify the FCC upon identification of Part 90 or other equipment for which it would eligible to receive a license. In the meantime, use of the Telex Equipment remains the best alternative for hundreds of nuclear power plant workers engaged in potentially hazardous work.

Respectfully submitted,

/s/ \_\_\_\_\_

Ellen C. Ginsberg  
Vice President, General Counsel  
Nuclear Energy Institute

/s/ \_\_\_\_\_

Jill M. Lyon  
Vice President & General Counsel  
Utilities Telecom Council

cc: Bruce A. Romano, Esquire

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<sup>3</sup> As during the terms of the several STAs granted by the FCC to allow use of the Telex equipment, NEI and UTC know of no reported instance of interference to broadcast operations from use of low-power headsets at nuclear power plants since grant of the experimental licenses.