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May 18, 1992

Docket No. 50-461

Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Clinton Power Station (CPS) Status Update of Generic Letter (GL) 89-13, "Service Water System Problems Affecting Safety-Related Equipment"

Dear Sir:

Recommendation I.B. of GL 89-13 stated that service water systems should be continuously chlorinated whenever the potential for a macroscopic biological fouling species exists. Initially, in letter U-601574 (dated January 29, 1990), Illinois Power (IP) responded by describing the new chlorination system that had been installed at CPS. That system used sodium hypochlorite rather than gaseous chlorine and, at the time the letter was written, the system was being tested and prepared for release for operation.

On December 31, 1990, IP provided the Nuclear Regulatory Commission (NRC) with a revised response to recommendation I.B. of the GL (letter U-601756). In that letter, IP discussed its finding that chlorine alone would not be totally effective in the control of microscopic biological species due to the high pH content of Clinton Lake. The letter went on to say that CPS was evaluating various chemicals and injection methods to provide micro and macro biofouling protection. IP's revised response to the recommendation was to develop and implement a new design that would provide the system chemical treatment.

On April 4, 1991, letter U-601817 was issued describing the initial steps that IP was going to take to begin the development of a chemical treatment program. At that time, IP was soliciting the services of an expert in the field of water treatment programs to assist the CPS staff in the development of our treatment program. As stated in that letter, IP uses raw water from Clinton Lake in a total of six systems and the treatment system to be developed would have to be compatible with all of those systems as well as the environment of Clinton Lake.

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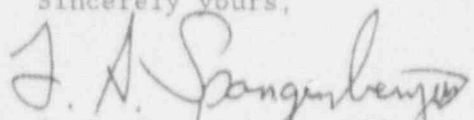
Specific goals have now been developed which must be achieved in order to implement a treatment program that supports the needs of CPS. These goals are:

- 1) the deactivation of existing Microbiologically Influenced Corrosion (MIC) in susceptible areas of all the systems which utilize lake water.
- 2) the establishment and implementation of methods which will prevent MIC from recurring.
- 3) to collect and analyze lake water data to support the selection of a proper treatment system.
- 4) to design, implement and test a permanent raw water treatment system.

Attached is the work plan which has been developed to address each goal and the associated actions required to support the planned implementation schedule. The work plan also describes the background, actions taken to date, history, regulatory interface and compliance, and program organization. This plan incorporates IP's commitment made in response to recommendation I. B. of GL 89-13. Implementation of this plan will provide a practical, safe and reliable chemical and/or mechanical treatment system designed in compliance with the State of Illinois and Federal regulations which will prevent and mitigate the effects of corrosion, scaling, and micro and macro biofouling in the CPS plant systems which utilize Clinton Lake water as the cooling medium.

IP will continue to periodically provide the NRC Senior Resident Inspector with updates concerning the progress being made in developing and implementing a raw water treatment program at CPS.

Sincerely yours,

  
F. A. Spangenberg, III  
Manager, Licensing and Safety

Attachment:

cc: NRC Clinton Licensing Project Manager  
NRC Resident Office  
NRC Region III, Regional Administrator  
Illinois Department of Nuclear Safety