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July 14, 2005

U. S. Nuclear Regulatory Commission
Gary Janosko, Chief
Fuel Cycle Licensing Branch, FCSS
c/o Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Revised License Amendment Request for Changing the Chloroform Ground Water Protection Standard in Source Materials License SUA-1475 (TAC LU0092) Groundwater Corrective Action Program

Dear Mr. Janosko:

On May 26, 2005, United Nuclear Corporation (UNC) requested an amendment to Source Materials License SUA-1475, Condition 30. B., to bring the groundwater protection standard for chloroform into agreement with the Maximum Contaminant Level (MCL) that has been established by the U.S. Environmental Protection Agency. By letter dated June 22, 2005, the Nuclear Regulatory Commission (NRC) responded to the request, citing some deficiencies. This revised request addresses the issues identified in the NRC review.

As of September 1997 United Nuclear Corporation became a wholly-owned, indirect subsidiary of General Electric Company. GE Corporate Environmental Programs has been retained through a separate administrative services agreement to assist UNC both technically and administratively with environmental issues at the Church Rock site.

Existing Conditions

30.B. Comply with the following groundwater protection standards at point of compliance Wells GW-1, GW-2, GW-3, 632, EPA-23, EPA-28, and 509-D I the Southwest Alluvium; 614, 604, EPA-4, EPA-5, and EPA-7 in Zone 1; and 517, 613, 708, and 711 in Zone 3:

Arsenic = 0.05 mg/l, beryllium = 0.05 mg/l, cadmium = 0.01 mg/l, chloroform = 0.001 mg/l, gross alpha = 15.0 pCi/l, lead = 0.05 mg/l, lead-210 = 1.0 pCi/l, nickel = 0.05 mg/l, radium-226 and 228 = 5.0 pCi/l, selenium = 0.01 mg/l, thorium-230 = 5.0 pCi/l, uranium = 0.3 mg/l and vanadium = 01 mg/l.

Justification

Section 4.2 of NUREG-1620 (p.4-21) states that acceptable groundwater protection standards for hazardous constituents may be either:

a) Commission-approved background concentrations
b) MCLs, or
c) Alternate concentration limits.

Under the Safe Drinking Water Act (SDWA), chloroform is regulated in the group of trihalomethanes (THMs), which have an established MCL of 0.080 mg/L. This represents the concentration of chloroform, and three other compounds (bromodichloromethane, dibromochloromethane, and bromoform) that are allowed in drinking water by taking into consideration best available treatment technology, costs, and benefits.

UNC originally proposed that the groundwater protection standard for chloroform be set at the MCL for THMs. In making that proposal, UNC assumed, but did not demonstrate that chloroform would be the only one of the four possible THMs present. NRC noted in its June 22nd letter that a chloroform concentration of 0.08 mg/L only meets the SDWA MCL for total THMs when the other three THMs are absent. Therefore, NRC could not authorize the request as proposed.

UNC therefore proposes to revise the license amendment request so that all future analytical work under the subject license includes the determination THMs in place of chloroform alone, and that the ground water protection standard be set to the MCL for THMs.

Proposed Amendment Text

30.B. Comply with the following groundwater protection standards at point of compliance Wells GW-1, GW-2, GW-3, 632, EPA-23, EPA-28, and 509-D I the Southwest Alluvium; 614, 604, EPA-4, EPA-5, and EPA-7 in Zone 1; and 517, 613, 708, and 711 in Zone 3:

Arsenic = 0.05 mg/l, beryllium = 0.05 mg/l, cadmium = 0.01 mg/l, **trihalomethanes (THM) = 0.080 mg/l**, gross alpha = 15.0 pCi/l, lead = 0.05 mg/l, lead-210 = 1.0 pCi/l, nickel = 0.05 mg/l, radium-226 and 228 = 5.0 pCi/l, selenium = 0.01 mg/l, thorium-230 = 5.0 pCi/l, uranium = 0.3 mg/l and vanadium = 01 mg/l.

Please contact me if you have any questions.

Sincerely,

Roy S. Blickwedel, P.G.
Remedial Project Manager
Corporate Environmental Programs

cc: William von Till, NRC
Larry Bush, UNC