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**Cc:** [Valadez, Ernesto Jr CIV USARMY IMCOM HO \(USA\)](#)  
**Subject:** [External\_Sender] Army response to NRC inspector's observation at Fort Carson on 19-20 July  
**Date:** Wednesday, August 4, 2021 4:13:35 PM

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Ms. Yadav,

During his inspection of SUC-1593 license activities at Fort Carson CO on 19-20 July, the NRC inspector, Rob Evans, observed that the Army did not comply with a statement in the QAPP (Annex 19 of the Environmental Radiation Monitoring Program). Specifically, the QAPP contains the following text:

The following action levels are based on criteria specified in the PAERMP and NRC regulations ...:

- 30 µg/L or more for surface water based on the [Safe Drinking Water Act maximum contaminant limit (SDWA MCL)]

...

The surface water decision rules for the designing of Site-Specific ERMP Annexes are provided below. Principal decision-makers regarding these rules and potential further action are the Army and the regulatory agencies:

...

- IF detections are greater than the action level (30 µg/L) within one or more surface water samples, THEN the locations will be resampled in order to verify the results.

The NRC inspector noted that resampling did not occur on at least three occasions (twice at Fort Carson and once at Yakima Training Center).

The Army agrees with the inspector's observations. As a first step to restore compliance, the Army will assure that resampling occurs when a water sample shows total uranium concentration greater than 30 micrograms per liter (ug/L).

However, as a second step, the Army will submit a request to amend the license by changing this requirement in the QAPP. We will request the amendment for the following reasons:

1. The 30 ug/L action level is derived from an EPA regulation, not from an NRC regulation.
2. The water being sampled is not used as drinking water.
3. The uranium in the samples is unlicensed natural uranium. If any licensed depleted uranium was in the samples, it was undetectable and hence unimportant.
4. Fort Carson and, to a lesser degree, Yakima Training Center have natural uranium background concentrations in soil significantly greater than other licensed sites. This is supported by our measurements of uranium in sediment samples at all license sites. So, it should not be surprising that the action level based on the SWDA, which is only about 20 pCi/L total uranium activity in water, is occasionally exceeded at Fort Carson and Yakima Training Center.

In its amendment request, the Army will delete references to the 30 ug/L action level and to subsequent required actions from the QAPP and replace the deletions with text similar to the following: "When analytical sampling results indicate that the total concentration of uranium exceeds 5.5 Bq/L (150 pCi/L), the Army will notify the NRC within 30 days, after which the Army will await further instructions, if any, from the NRC."

This new action level is 50 percent of the 10 CFR 20 NRC effluent limit for uranium concentration in water.

Army responses to analytical sampling results with U-238/U-234 ratios that exceed three will remain unchanged (license condition 17).

Thank you for your consideration.

Sincerely,  
Bob

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