



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services

5353 Yellowstone Road, Suite 308A

Cheyenne, Wyoming 82009

SEP 15 2009

In Reply Refer To:

ES-61411/ W.26/WY09EC0074

Richard Chang, Project Manager
Special Projects Branch
Office of Federal and State Materials and
Environmental Management Programs
Division of Waste Management and
Environmental Protection
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Mr. Chang:

Thank you for your letter of August 12, 2009 and received by our office on August 17 regarding the draft environmental assessment for the Western Nuclear, Inc. Split Rock Site license amendment request for an alternate concentration limit and revised groundwater protection standards. The Split Rock Uranium Mill Tailings site is located in southeast Fremont County, Wyoming south of the Sweetwater River and approximately 40 miles southeast of Riverton, Wyoming.

The U.S. Fish and Wildlife Service believes that the draft environmental assessment provided sufficient information to determine the effects of this project to federally listed species. Based on the information provided in your letter, it is unlikely that the proposed work will adversely affect any threatened or endangered species. You may consider this project, as proposed, to be in compliance with the Endangered Species Act of 1973, as amended (Act), 16 U.S.C. 1531 *et seq.* Regarding the potential effects to migratory birds protected under the Migratory Bird Treaty Act, 16 U.S.C. 703, the proposed alternate groundwater concentration limit for selenium of 50 µg/L will not likely affect migratory birds if institutional controls are in place to prevent the extraction of selenium-contaminated groundwater and its discharge to surface waters or surface impoundments or stock ponds.

Waterborne selenium concentrations ≥ 2 µg/L are considered hazardous to the health and long-term survival of fish and wildlife (Lemly 1996). Additionally, water with more than 20 µg/L is considered hazardous to aquatic birds (Skorupa and Ohlendorf 1991). Chronic effects of selenium manifest themselves in immune suppression to birds (Fairbrother et al. 1994) which can make affected birds more susceptible to disease and predation. Selenium toxicity will also cause embryonic deformities and mortality (See et al. 1992, Skorupa and Ohlendorf 1991, Ohlendorf 2002).

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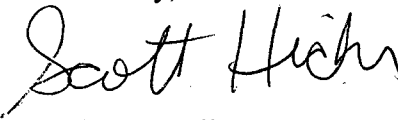
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This project should be re-analyzed if new information reveals effects of the action that may affect listed species or designated or proposed critical habitat (1) in a manner or to an extent not considered in this letter, (2) if the action is subsequently modified in a manner that causes an effect to a listed species or designated or proposed critical habitat that was not considered in this letter, and/or (3) if a new species is listed or critical habitat is designated that may be affected by this project.

We appreciate your efforts to ensure the conservation of endangered, threatened, and candidate species and migratory birds. If you have further questions regarding this letter or your responsibilities under the Act, please contact our office at the letterhead address or phone Pete Ramirez at (307) 772-2374, extension 236.

Sincerely,


for Brian T. Kelly
Field Supervisor
Wyoming Field Office

cc: WGFD, Non-game Coordinator, Lander, WY (B. Oakleaf)
WGFD, Statewide Habitat Protection Coordinator, Cheyenne, WY (M. Flanderka)
WDEQ, Groundwater Program Supervisor, WQD, Lander, WY (M. Thiesse)

References Cited:

- Fairbrother, A.F., M. Fix, T. O'Hara, and C.A. Ribic. 1994. Impairment of growth and immune function of avocet chicks from sites with elevated selenium, arsenic, and boron. *Journal of Wildlife Diseases*. 30(2):222-233.
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- Ohlendorf, H.M. 2002. Ecotoxicology of selenium. In *Handbook of Ecotoxicology*, 2nd ed.; Hoffman, D.J., Rattner, B.A., Burton Jr., G.A., Cairns, Jr., J., Eds.; Lewis Publishers, Boca Raton, FL, 2003; pp 465-500.
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- Skorupa, J.P., and H.M. Ohlendorf. 1991. Contaminants in drainage water and avian risk thresholds. Pages 345-368 in A. Dinar and D. Zilberman (eds.). *The economics and management of water and drainage in agriculture*. Kluwer Academic Publishers, Boston, MA.