Isaacs, Orma

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Sent: Friday, February 14, 2014 4:24 PM
To: Shoemaker, Mirabelle
Cc: Lancaster, Thomas; Doug Pavlick; Larry Teahon; Jack Cearley
Subject: Marsland Expansion Area Environmental Report Page Changes
Attachments: Marsland ER page changes 2-14-14.pdf; Nebraska Industrial Groundwater Transfer Act.pdf

Mirabelle - Additional clarifications to the Marsland Environmental Report (ER) are provided below.

1. Nebraska Industrial Groundwater Transfers Permit Act - In the file entitled Marsland ER page changes 2-14-14 please find a redline/balloon revision to page 1-17 of the ER. Also please find the attached pdf with sections of the Nebraska Revised Statutes regarding Industrial Groundwater Transfers permits.

The statement on page 1-7 of the ER is not accurate. It has been deleted. Originally, the Nebraska Industrial Groundwater Transfers Permit Act was promulgated to address concerns related to the out of state transfer of Nebraska groundwater associated with a proposed coal slurry pipeline that would have crossed the state. Regulations were subsequently developed that controlled and limited the transfer of groundwater from the water well site to another location for use (Neb. Rev. Statute 46-675). A permit program was then devised to authorize those transfers.

Crow Butte submitted and obtained authorization for groundwater transfer starting in 1991. Pursuant to an amendment, the originally approved volume was increased by 25% in 2010, the maximum allowed under the statute in effect at that time (Neb. Rev. Statue 46-683.01). For some time, it had been recognized that the statute was limiting Crow Butte's ability to optimize groundwater restoration activities. In response, in 2012, the Nebraska legislature amended the act to align the groundwater transfer limits for mineral production activities with the permit issued under other state authorities (see highlighted text in 46-683.01). Specifically mentioned is subsection (9) of Neb. Rev. Statue 81-1505. Part (c) of subsection governs mineral production wells of the type used for in situ recovery uranium mining operations.

As a result of the amended legislation, the Nebraska Department of Environmental Quality Class III Underground Injection Control permitting process for the Marsland Expansion Area will now be utilized as the framework for the Industrial Groundwater Permit issuance and for any required amendments. As you may be aware, the NDEQ Class III permit application contains an abridged version of the impacts analysis presented in the in the Environmental Report for the MEA license amendment application. Although a more limited impact assessment is provided in the context of the Class III application, it is derivative to the language in the ER.

2. Derivation of person-rem/year population dose estimate in Section 4.12 - In the file entitled Marsland ER page changes 2-14-14 please fine a redline/balloon revision to page 4-37 of the ER.

The last bullet in Section 4.12.2.4 is a typographical error. It has been corrected to reflect the value shown at the bottom left of page 6 of Appendix M. The total effective dose in person-rem/year computed over all populations is 3.06E+02.

As a matter of information, the Mildos code takes the population estimates depicted on Figure 1 of Appendix M, calculates the dose in each zone, multiplies the dose in each zone by the population in that zone and then compiles the total dose.