

**From:** [Dawn Kolkman](#)  
**To:** [Brown, David](#)  
**Subject:** [External\_Sender] Jane dough Amendment page change  
**Date:** Wednesday, August 17, 2016 1:23:00 PM  
**Attachments:** [TR-308 and TR-309.docx](#)

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Dave,

Attached please find pages TR-308 and TR-309 (the page numbers were corrected from a previous submittal). These are meant to replace those currently in Volume I.

Please let me know if you receive this email adequately.

Thank You



**Energy Fuels Resources (USA) Inc.**

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properly trained personnel. The facility design, site features, and operating assumptions of the Nichols Ranch ISR Project are consistent with those of the NRC analyses. Therefore, independent accident analyses will not be conducted for the Nichols Ranch ISR Project. However, assessments are provided of applicable accident types and scenarios to include site specific conditions. More specifically, discussion is provided with respect to coal bed methane recovery, which is unique to the region.

Uranerz will promptly initiate corrective actions in response to an accident, as presented in various parts of the Application. Uranerz will also notify the NRC and file the appropriate reports in accordance with the rules provided in 10 CFR Part 20, §§ 20.2202 Notification of Incidents and 20.2203 Reports of Exposures, Radiation Levels, and Concentrations of Radioactive Material Exceeding the Constraints or Limits.

Uranerz will also contact local fire departments, medical services, and other local agencies that may respond to emergencies in the area of the Nichols Ranch ISR Project to inform the agencies about the project; training for the agencies when dealing with fire, injury, or other emergencies, and how to contact and locate the Nichols Ranch Project.

### **7.5.1 Transportation Incidents**

Materials transportation to and from the Hank and Nichols Ranch Units can be classified into four categories:

- 1) Shipment of refined yellowcake (dried or slurry form) from the Nichols Ranch Central Processing Plant to a uranium conversion facility.
- 2) Shipment of loaded resin from the Hank Unit to the Nichols Ranch Central Processing Plant.
- 3) Shipment of process chemicals from suppliers to the Hank and Nichols Ranch Units.
- 4) Shipments of 11(e)2 by-product material to a NRC licensed facility for disposal.

One other transportation classification is the transporting of employees to and from the plant site.

#### 7.5.1.1 Shipment of Refined Yellowcake

Refined Yellowcake produced at the Nichols Ranch Central Processing Plant will not differ from the refined yellowcake produced at conventional mills. The NRC evaluated transportation accidents associated with yellowcake shipments from conventional mills and published the results in a generic environmental impact statement, NUREG-0706, NRC, 1980. The following information on transportation accidents is based on the analysis on the earlier NRC study.

Refined yellowcake produced at the Nichols Ranch Central Processing Plant will be packaged in 55-gallon steel drums when in dried form. When in slurry form the product will be packaged in an exclusive use tanker trailer, specifically designed for transportation of yellowcake slurry. Dried yellowcake will be shipped approximately 1,200 mi to a uranium conversion facility. This conversion facility is the first manufacturing step in converting the yellowcake into reactor fuel. An average truck shipment contains approximately 40 drums, or up to 19 tons of yellowcake. Based on the initially projected annual production rate of 800,000 pounds of yellowcake per year, approximately 21 shipments of 40 drums each would be required annually for the Nichols Ranch ISR Project. By increasing the annual production rate to 2.0 million pounds per year per the vacuum dryer designed throughput, approximately 53 shipments would be required annually. Slurry yellowcake will be transported to an approved licensed facility for drying and packaging.

According to NUREG-0706, published accident statistics predict the probability of a truck accident under three different scenarios: 1) on interstate highways in rural areas, 2) on interstate highways in urban areas, and 3) on two-lane roads typical of those in the vicinity of the proposed project. The overall average probability of a truck accident for the Nichols Ranch ISR Project based on the NUREG-0706 data is  $2.2 \times 10^{-6}$ /mile. This takes into account that most of the shipping of yellowcake will be on interstates in both rural and urban areas.

The truck accident statistics also include three categories of events: collisions, noncollisions, and other events. Collisions are considered to be between the trucks and other vehicles or any other object, whether moving or stationary. Noncollisions are accidents involving only the truck that result in accidents such as the truck leaving the road and rolling over. Other events include