

Docket File 40-8829  
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40-8829/SLW/85/05/03/2

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MAY 10 1985

URFO:SLW  
 Docket No. 40-8829  
 04008829131E  
 04008829141E

MEMORANDUM FOR: Docket File No. 40-8829

FROM: Sandra L. Wastler, Project Manager  
 Licensing Branch 1  
 Uranium Recovery Field Office, Region IV

SUBJECT: AIRBORNE RADIONUCLIDE MONITORING LOCATIONS AND  
 MINOR CHANGES TO CONSTRUCTION AND DESIGN DETAILS  
 FOR THE CROW BUTTE PROJECT

In accordance with License Condition No. 36 to Source Material License SUA-1441, Wyoming Fuel Company (WFC) submitted for NRC review and approval the locations for the in-plant survey of airborne natural uranium and radon or radon progeny at the Crow Butte project. In addition, under separate cover dated April 2, 1985 WFC submitted a list of minor construction and design modifications for the Crow Butte project. The NRC has reviewed both of these submittals and staff comments are provided in the following paragraph.

#### Location of Airborne Monitoring

By letter dated April 4, 1985, WFC proposes to monitor airborne natural uranium at one location between the uranium precipitation tank and the uranium slurry storage tank. Radon and radon progeny will be monitored at two locations; first between the production surge tank and the reverse osmosis feed tank and secondly, between ion exchange Columns A and B. WFC chose the above locations as areas having the highest probability of occurrence for airborne uranium and radon or radon progeny. While the NRC concurs with WFC's airborne monitoring locations as described above, the staff believes these locations do not provide a location to be representative of an employee's work station. An employee will spend very limited, if any, time at the locations defined by WFC. Therefore, the NRC staff will require that WFC add one additional monitoring location for radon or radon progeny that is more representative of employee work location (i.e., near the control panel).

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In addition, WFC's February 11, 1983 application states on page 5.7 (10) that other locations would also be monitored (offices, lunch room, laboratory and maintenance shed), yet these locations were not defined as monitoring points in WFC's April 4, 1985 memorandum. In accordance with License Condition No. 10, WFC shall monitor the office, lunch room, laboratory and maintenance shed for radon or radon progeny. The location of these monitoring stations should also be provided to the NRC in accordance with License Condition No. 36.

The NRC staff has reviewed and concurs with WFC's proposal to continue monitoring the pre-operational locations for radon or radon progeny in order to comply with License Condition No. 36 requirement to monitor radon concentrations at and near the site boundary.

#### Minor Construction and Design Changes

By letter dated April 2, 1985, WFC submitted a list of minor construction and design details which have been changed from the original application dated February 11, 1983, and additional information dated August 1983 and November 23, 1983. WFC requested that these changes be considered an administrative amendment to Source Material License SUA-1441. The NRC has reviewed these minor changes to construction and design details of the Crow Butte facility and will require the following additional information:

1. Prior to adding additional wells to Wellfield No. 1 (wells in addition to the original five-spot with 66-foot well spacings and the two observation wells), WFC will submit the proposed location of leaching pattern and restoration plan for these additional wells to the NRC for review and approval.
2. Section 3.1 - What provisions have been made for detecting leaks from the underground piping?
3. Section 3.2 - What other tanks will be vented (i.e., injection and recovery surge tank, pregnant eluant tank, etc.)?
4. Section 3.3 - Instruments should be used to check pressure at each well. Header pressure does not tell you which well or wells are pressuring up. A pressure indicator on each well line or well head is a better plan. Likewise, each well should have a dedicated flow meter as indicated on Figure 3.1-10.

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5. Section 5.7 - How many times per shift will be read? Once per 8 or 12 hours may not be prone to overpressuring.
6. Section 7.5 - Figure 3.1-10 indicates injection trunklines will be used. WFC's statement indicates lines will be used rather than trunk lines. Figure 3.1-10.

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#### Previous Changes

By letter dated January 28, 1985, WFC requested Conditions Nos. 36 and 41 be modified to allow submittal of these license conditions 60 and 90 days, respectively, of the Nebraska Department of Environmental Control. At that time, the NDEC had not issued their final decision. We did not know if the NDEC permit would impact the submittal of Conditions Nos. 36 and 41. Therefore, by letter dated February 15, 1985, the NRC agreed with WFC's request to modify the license. The modification was minor, elected to modify the subsequent license amendment request. AS a result, License No. SUA-1441 will be modified as stated in the April 2, 1985 license amendment request.

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#### Recommendations and Conclusions

Based on the NRC review of WFC's submittals dated April 4, 1985, the additional information outlined in the April 4, 1985, letter prior to the issuance of the requested license

1985, and  
will be required

Signed By  
Edward F. Hawkins

Sandra L. V.  
Licensing Branch  
Uranium Recovery  
Region IV

Act Manager  
Office

Approved by:

Edward F. Hawkins, Chief  
Licensing Branch 1  
Uranium Recovery Field Office,

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