



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

PDR-DCS

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WMUR:DEM
Docket No. 40-8745

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DISTRIBUTION SERVICES
US NRC
BRANCH

DOCKET NO.: 40-8745
APPLICANT: Ogle Petroleum, Inc. (OPI)
FACILITY: Bison Basin Project, Commercial-Scale ISL Facility,
Fremont Co., Wyoming
SUBJECT: EVALUATION OF REQUEST TO COMMENCE DRILLING WELLS IN
MINING UNIT NO. 1

Requested Action:

By letter dated October 8, 1980, OPI requested authorization to commence drilling injection and recovery wells in Mining Unit No. 1, pursuant to 10 CFR 40.14(b). Such drilling, if conducted prior to issuance of the FES without NRC authorization, might be grounds for license denial under the present 10 CFR 40.32(e). The applicant's request is, therefore, construed to be a request for NRC authorization to drill wells before FES issuance, without prejudice to any eventual licensing decision.

On October 3, 1980, new and/or revised regulations were published in the Federal Register (45 FR 65521) in final form which, when effective, will: (1) eliminate 10 CFR 40.14(b); and (2) revise 10 CFR 40.32(e). Accordingly, since these regulation changes will soon be effective and any authorization under 10 CFR 40.14(b) would be prematurely nullified, the applicant's request has been evaluated under the provisions of 10 CFR 40.14(a), which remains unchanged, and in light of the to-be-effective 10 CFR 40.32(e), which is more restrictive.

Applicant's Justification:

The applicant's October 8 letter states that postponing Unit 1 well drilling until the anticipated licensing date of December 1980 would seriously delay startup of his operation, since site weather conditions normally preclude drilling during the winter months, and drilling of the well field is the most time consuming aspect of bringing an in-situ mining operation on line. The applicant further states that not commencing drilling now would most likely delay startup by four to six months.

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The applicant's letter also points out that drilling of injection and recovery wells in Mining Unit No. 1 has already been authorized by the State of Wyoming, by issuance of State Engineer's Permits 53490-53493 and Department of Environmental Quality (DEQ) Permit to Mine No. 504, and that bonding to cover reclamation costs is included under the DEQ permit.

In subsequent verbal communications, Mr. Glenn Catchpole of OPI indicated that the Bison Basin Project is currently operating at a net financial loss rate of about \$80,000 per month, even though the operational 1-acre R&D well field is generating about \$40,000 per month in revenue through product sales. According to Mr. Catchpole, OPI hopes to drill wells now, and connect and operate them over the winter months so that the current financial loss rate could be offset by sales of additional yellowcake product. This is feasible because well heads can be connected in the winter months, unless snow cover is too great, whereas drilling may be curtailed due to freezing of the drilling mud. Also, processing capacity can be increased by increasing tankage capacities and flow rates within the existing R&D facility structures.

Evaluation Pursuant to 10 CFR 40.14(a):

Under §40.14(a) the Commission may, upon its own initiative or otherwise, grant exemptions such as requested by OPI, if such exemptions are determined to be:

- (1) authorized by law;
- (2) not an endangerment to life or property or the common defense and security; and
- (3) in the public interest.

With respect to point (1), R. L. Fonner of ELD has indicated that the requested exemption is "authorized by law", as authority for granting such exemptions is provided by the Atomic Energy Act of 1954 and the Uranium Mill Tailings Radiation Control Act of 1978, both as amended.

With respect to point (2), all currently available information (including the published DES, the preliminary FES, the applicant's experience with the operating R&D well field, and the staff's experience with other drilling operations) indicates that the proposed drilling will not endanger life or property or the common defense and security.

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Regarding point (3), the proposed early drilling appears to be in the public interest since it will directly benefit OPI and there is no identifiable significant adverse impact. This finding is based, in part, on the likelihood of eventual license issuance. Both the published DES and the preliminary FES recommend license issuance. Also, the successful operation to date of the applicant's 1-acre R&D well field, which is within Mining Unit No. 1, indicates no problems that would ultimately prevent the applicant from mining in Unit 1. It is concluded, therefore, that the capital investment to be committed by the applicant to finance pre-FES-issuance well drilling in Unit 1 is justified, although not without some minimum risk. The applicant's October 8 letter states acceptance of this risk, and acknowledges the requirement to properly reclaim the well field if, under unforeseen circumstances, the license is ultimately denied.

Based on the above, it is concluded that the requested exemption is in conformance with the conditions stipulated in 10 CFR 40.14(a), and should be granted.

Evaluation Pursuant to New 10 CFR 40.32(e):

New §40.32(e) seeks to restrict the impacts of on-site activities, conducted prior to a finding by the Director of NMSS that a license should be issued, to those commensurate with the conduct of necessary site exploration and site characterization investigations. Specifically allowed are "roads for site exploration" and "borings to determine foundation conditions".

The activities proposed by the applicant will yield environmental and other impacts that are similar in both kind and magnitude to those to be allowed under new §40.32(e), i.e., surface disturbance over limited areas by vehicular transport, and drilling. For a conventional mill and tailings disposal site, areas of up to several hundred acres may be criss-crossed by roads and subjected to exploration drilling, whereas the applicant proposes to disturb only the 11.6-acre area of the Mining Unit No. 1 ore body.

Because surface disturbance will be over a limited area, and because sub-surface disturbance will be of minimal impact, it is concluded that the impacts to be incurred by the applicant in drilling Unit 1 wells are well within the range of those to be allowed under new §40.32(e). Although the purpose of the applicant's requested activities is not

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explicitly included in the list of pre-FES activities to be allowed under new §40.32(e) (namely site exploration and site characterization activities), the staff believes granting of the request is warranted because of the following:

- (1) the timing of the request, relative to the current schedule for FES issuance, and the onset and duration of harsh weather conditions at the site;
- (2) the limited area to be disturbed by the activities for which authorization is requested, and the insignificance of the impacts to be incurred;
- (3) the ease with which redress can be effected from such impacts as will occur, by virtue of the nature of such impacts and the existence of reclamation bonding; and
- (4) the advanced state of the staff's evaluation of the applicant's overall proposal, including the license application and associated environmental report, and the lack of any identifiable problem, situation, or condition which would support a conclusion that the license should be denied.

Because of the special circumstances detailed above, and because of the similarity of the impacts of the proposed activities to those of the site exploration and site characterization activities allowed under new §40.32(e), it is concluded that the applicant's request should be considered to be consistent with the provisions of new §40.32(e). It is recommended, however, that the applicant's request be granted under the condition that no more than 100 wells be drilled in Mining Unit 1 before FES issuance. This number of wells is roughly equivalent to the number of wells and exploration boreholes already existing in Unit 1, is within the range of the number of borings that might be required for site characterization purposes at a full-scale conventional mill, and roughly conforms to the number of wells the applicant indicates can be drilled prior to FES issuance.

Recommendation:

Based on the information and evaluations provided above, it is recommended that OPI be issued, pursuant to 10 CFR 40.14(a), an exemption from the requirements of 10 CFR 40.32(e) for the purpose of drilling and completing wells in Mining Unit No. 1 of the Bison Basin Project, subject to the following conditions:

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- (a) Any drilling of wells shall be conducted in full accord with all stipulations, representations, and statements in the applicant's Source Material License Application and associated Environmental Report.
- (b) OPI shall notify the NRC and the Wyoming State Archaeologist, verbally and within one (1) working day, when any artifacts of earlier culture are encountered, and shall immediately cease all activity within 100 meters.
- (c) All drilling wastes, including drill cuttings, spent drilling mud, tools, and equipment shall be disposed of in accordance with the requirements for disposal of similar wastes produced by the operating 1-acre R&D facility.
- (d) All operations conducted pursuant to this authorization shall be conducted in a manner so as to reduce or minimize environmental impacts.
- (e) Capital already invested or committed by the applicant, for any activities conducted pursuant to this authorization, shall be solely at the applicant's discretion and risk, and shall not be considered whatsoever in any subsequent licensing evaluation or determination made by the NRC.
- (f) No more than a total of 100 wells may be drilled pursuant to this authorization.
- (g) The deep monitor well which is to be drilled and placed pursuant to NRC letter to Ogle of September 8, 1980, shall be installed at the beginning of the production drilling program. The pump tests called for in the NRC letter shall be performed as soon as practicable and reports submitted within 45 days of the start of production drilling.

Dan E. Martin

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Approved by:

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Hubert J. Miller, Section Leader
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