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 Helping develop earth's resources to meet the world's needs.

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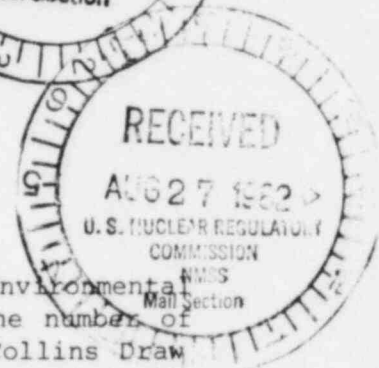
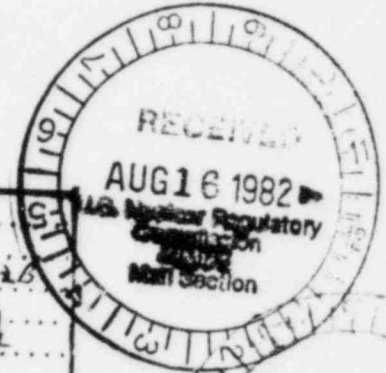
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August 13, 1982

Mr. Jeffrey A. Pohle
 Uranium Recovery Licensing Branch
 Division of Waste Management
 U.S. Nuclear Regulatory Commission
 Washington, D.C. 20555

Applicant.....	
Check No. 9447	
Amount/Fee Category 976025	
Type of Fee <i>minor</i>	
Date Check Rec'd. 8/11/82	
Received By <i>[Signature]</i>	



Dear Mr. Pohle:

Re: Source Material License No. SUA-1352
 Docket No. 040-08714

This letter is submitted to request a Minor, Safety and Environmental Amendment to the above-referenced license in order to reduce the number of operators and the time that personnel will be present at the Collins Draw Project site.

The Source Material License Composite Application, pages 78-80 states:

The site will have at least two operators 24 hours a day, 7 days per week. Housing will be maintained off-site, nearby, for those operators preferring low-cost living. (Revised 3/21/80, p.2.)

Due to the nature of the pilot operation, its location, and its mode of operation, Cleveland-Cliffs does not intend to use security guards at the site unless there is a major, long-term suspension of testing.

Cleveland Cliffs has attempted to restore the groundwater at Collins Draw to the best quality achievable, and we believe that the groundwater restoration requirements have been fulfilled. Cleveland-Cliffs has been consulting with the Wyoming DEQ and, as of this date, we have not reached agreement on the groundwater restoration requirements for termination of the R & D license. An indefinite period of time could elapse before Cleveland-Cliffs and the DEQ reach agreement. Cleveland-Cliffs is seeking to curtail the dual operator, 24-hour per day, 7-day per week restoration activities at the project site, since these activities are not significantly improving the groundwater quality.

During this indefinite period, Cleveland-Cliffs will, at times, conduct additional groundwater restoration research at the project site. It is anticipated that at other times no restoration activity will be conducted and personnel will not be present at the project site. During the times when personnel are

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Mr. J. A. Pohle
August 13, 1982
Page 2

not present at the project site, security will be provided by locking all doors and windows of the process building, and closing and locking the gate, blocking the access road to the site. The windows of the process building have been barred and will remain barred until the building is dismantled or the licenses are terminated. The fence enclosing the project area will be maintained. Environmental and radiation monitoring will be conducted in compliance with the licenses and permits. The nominal yellowcake product (U_3O_8) inventory will be transferred to another licensed facility.

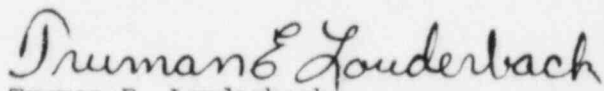
Pursuant to Title 10, Part 40 of the code of Federal Regulations, Cleveland-Cliffs requests that Source Material License No. SUA-1352 be amended to include the information contained in this transmittal concerning the reduction of personnel and operating time of the Collins Draw Project. A check for \$760 is enclosed for the Minor, Safety and Environmental Amendment fee.

Also enclosed are revised pages 78 and 80 to be inserted into the Source Material License Composite Application.

If you have any questions in regard to this request for amendment, or if you require additional information, please contact me personally at your earliest convenience. Your timely consideration of this request would be greatly appreciated.

Sincerely,

CLEVELAND-CLIFFS


Truman E. Louderback
Director of Environmental Affairs

TEL:ceg

Enclosure

XC: Mr. Pohle - 4 copies
Region IV, Office of Inspection and Enforcement, NRC - 1 copy

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5.0 OPERATION

The research pilot plant described in this application is part of a complete development program. In addition to investigating the technical aspects of uranium extraction by solution mining, the development of training procedures for personnel and a radiation safety and monitoring program are planned. More details of these programs will become available as the complete staff for the pilot test is acquired. All required programs to insure personnel safety and radiation control will be in effect prior to plant start-up.

5.1 Corporate Organization

Figure 21 illustrates the chain of command for the control of the solution mining pilot project. Cleveland-Cliffs is the Manager of the joint venture and is responsible for carrying out programs approved by the joint venture.

5.2 Qualifications of Personnel Administering the Radiation Program

For the research plant, the radiation safety program will be administered by the project supervisory personnel. These people will have experience and training when they begin work or will be trained. Training is available through the Mine Safety and Health Administration (M.S.H.A.) and seminars, such as those offered periodically at the University of Texas Medical College regarding radiation health physics.

5.3 Radiation Safety Instruction

All employees and consultants engaged in operating the pilot plant will be issued radiation badges. These badges will probably be issued by the Life Science Group, Dosimetry Services, 26201 Miles Road, Cleveland, Ohio 44128, or an equivalent group. All personnel will be trained upon the proper use of this equipment.

All employees must wear hardhats, hardtoed shoes, and safety glasses. Respirators and safety gloves will be worn when handling either yellow cake spills or chemicals such as 50% hydrogen peroxide.

Radiation safety instruction will be included in the overall safety program to be developed for this project.

5.4 Security of Operating Areas

The entire plant and well field (approximately 19.7 acres) are enclosed by a fence and signs posted warning intruders to proceed with caution, etc. (Revised 5/7/80, p.5.) All equipment can be secured at the mine site either in the well field control station, or the metallurgical plant building. Gates entering the fenced areas can be locked.

During the times when personnel are not present at the project site, security will be provided by locking all doors and windows of the process building, and closing and locking the gate, blocking the access road to the site. The windows of the process building have been barred

and will remain barred until the building is dismantled or the licenses are terminated. The fence enclosing the project area will be maintained. Environmental and radiation monitoring will be conducted in compliance with the licenses and permits. The nominal yellowcake product (U_3O_8) inventory will be transferred to another licensed facility. (Revised 8/13/82, p.2.)

5.5 Radiation Safety Program

The radiation safety program outlined below generally follows Section 5.5 of the N.R.C. Branch Position Paper describing suggested contents of application for licenses authorizing small-scale or research and development processing of uranium ores. (Revised 1/16/79, p.27.)

The three methods that will be used during this Research and Development Program for determining exposures of personnel to external radiation are:

- (1) Thermoluminescence dosimetry (TLD) badges for all operating personnel to measure gamma and x-ray.
- (2) Beta-gamma surveys of selected equipment in the plant and well field using portable survey meters.
- (3) Collection of air samples in the plant and well field for analyses of alpha radiation and particulate radionuclides. (Revised 1/16/79, p.27.)

The equipment and instrumentation used in this pilot project for the radiation safety program are:

- (1) TLD badges for all operating personnel working at the Collins Draw Mine and Pilot Plant. The number of individuals working at the plant, well field, laboratory and administrative offices, including plant operators, engineers, consultants, frequent visitors connected with the project, and clerical help that will be issued TLD badges is approximately 30. These badges will be supplied by either (a) The Life Science Group of Cleveland, Ohio; or (b) Eberline of Santa Fe, New Mexico; or (c) an equivalent manufacturer.
- (2) Beta-gamma surveys will be made using portable meters such as the (a) Model CP-5 Mark III, Technical Association, Canoga Park, California; or (b) Model 05-670, Nuclear Association, Westbury, New York; or (c) Model 470A, Victoreen Instrument Division, Cleveland, Ohio; or (d) Model RO-3, Eberline Corporation, Santa Fe, New Mexico; or (e) a meter equivalent to the ones above.
- (3) Radon daughters sampling, alpha and particulate radionuclides will be measured using the (a) Model PS-2 Counter/SPA-1 Alpha Detector by Eberline Corporation, of Santa Fe, New Mexico; or (b) Model 2200 Counter/43-9 Alpha Detector by the Ludlum Measurements, Sweetwater,