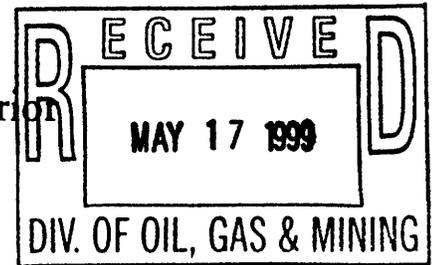




United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Price Field Office  
125 South 600 West  
Price, Utah 84501



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U-07064-027821  
UTU-69635  
(UT-070)

CERTIFIED MAIL - RETURN RECEIPT REQUESTED  
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Mr. Reid Olsen  
Vice President and General Manager  
Canyon Fuel Company, LLC  
Soldier/Dugout Canyon Mines  
P. O. Box 1029  
Wellington, Utah 84542

MAY 14 1999

Re: Resource Recovery and Protection Plan (R2P2) Soldier Canyon Mine and Dugout Canyon Mine,  
Canyon Fuel Company, LLC (CFC), May 1998

Dear Mr. Olsen:

In May 1998, the Bureau of Land Management (BLM) received CFC's revised R2P2 for the Soldier Canyon and Dugout Canyon Mines. This letter is to notify you that we have completed our preliminary review of CFC's modification to the R2P2 regarding the Soldier Canyon and Dugout Canyon Mines. The purpose of our review is to determine compliance with the Mineral Leasing Act of 1920, as amended; the regulations at 43CFR 3480; the lease terms and conditions and to ensure that maximum economic recovery (MER) will be achieved.

Our determination of the subject R2P2 is as follows:

- General Comment (p. 3): The new Soldier Canyon Mine and Dugout Canyon Mine Plan (R2P2) should be a stand-alone document within the OSM Mine and Reclamation Plan, without reference to past documents submitted to the BLM. It should detail operations at the Soldier Creek Mine and Dugout Mine as they stand today and how CF plans to operate them. Discussion of the events leading to the present situation at Soldier Creek should be included.
- General Comment: All required data which is clearly duplicated in other portions of the Permit Application Package or other submittals (i.e., MSHA) may be used to fulfill the requirements of 43 CFR 3480, provided the cross-reference is clearly stated (volume, section, page, etc.). However, a copy of the relevant portion must be included in the R2P2 (43 CFR 3482.1(c)(6)). All relevant mining or mining-related items must be included in the Resource Recovery and Protection Plan (Enclosure 1).
- Submit a detailed description of proposed exploration activities. This narrative description should include the method of exploration (in-mine and surface), types and quantity of equipment to be used.
- Under geologic conditions (p. 6): A brief, but precise, description and map of the geology and soils of the area, including types, extent, lithologies, structural features such as bedding, faults, folds, thicknesses, significant physical characteristics of the deposit; and also describe the location.

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ACT/007/018 #2  
ACT/007/039 #2  
*Copy Joe, Dawn, RM*

characteristics, and evaluation of any potential geologic hazards (e.g., slides, faults, sink holes, etc.). Please see comment No. 2. All potential adverse geological conditions that may affect extraction of the recoverable coal reserves should be addressed in this section.

- Provide all electronic and digital information concerning the geology of the Dugout Mine Federal lease requested by this office. This information should be included in the R2P2.
- Provide appropriate justification (design criteria) for the size of all protective barrier pillars utilized in the mine layout in accordance with 43 CFR 3482.1 (c)(4)(v)(C), the location of where pillars will be left, and an explanation of why these pillars will not be mined.
- Provide up-to-date coal quality data for all Federal leases. Should provide detailed analysis on each seam. Justification for not mining the full thickness, if only part of a coalbed will be mined; justification for mining only a particular bed, if multiple beds are present, so that future environmental disturbance through resumption of mining will be minimized; and consideration must be given to ensuring the maximum practical recovery of the mineral resource. Provide more detail concerning the information on whether the entire thickness of the coal is to be mined (if part is to be left for floor or roof support, etc.). You must support your decision to leave part of the seam.
- Detailed mining methods:

This section shall include, in addition to your schedule of anticipated rates of mine production, a complete, detailed description of the mining method(s) to be employed throughout the life of the operation, including schedules of projected mine development utilizing maps, cross-sections, diagrams, etc. This should include details related to such items as estimated number, size, depth, and location of adits, shafts, and ventilation schemes and openings; room-and-pillar layouts, longwall panel layouts and/or combination layouts; information on whether the entire thickness of the commodity is to be mined or whether part is to be left for floor or roof support; recovery factors; transportation, haulage, and handling systems (flow diagram); type(s) of ground support; explosives--type(s) and methods of use; types, size, specifications and scheduling of production equipment; mine dewatering plans and equipment; mine power and utility systems; distribution system; and schedules of personnel requirements, including skill breakdown. List all basic mining equipment and provide manufacturer's specifications.

- Explanation of how MER of the Federal coal is achieved. If a coalbed or portion thereof is not to be mined or is to be rendered unminable by the operation, the operator/lessee shall submit appropriate justification. The 43 CFR 3482.2(a)(2) states, No resource recovery and protection plan or modification thereto shall be approved which is not found to achieve MER of the Federal coal. The determination of MER shall be made by the authorized officer based on the review of the R2P2. MER is defined within 43 CFR as meaning, based on standard industry operating practices, all profitable portions of a leased Federal coal deposit must be mined. At the time of MER determinations, consideration will be given to: existing proven technology; commercially available and economically feasible equipment; coal quality, quantity, and marketability; safety, exploration, operating, processing and transportation costs; and compliance with applicable laws and regulations. The requirements of MER does not restrict the authority of the authorized officer to ensure the conservation of the recoverable coal reserves and other resources and to prevent the wasting of coal. This discussion should include all data and information for elimination of the Rock Canyon seam due to marketability, interburden and sulfur content issues. To ensure that adequate data is available for the MER determination, the following is required:
  - 1) Mining Costs. A description of the cost for all mining equipment, associated equipment, personnel costs, ancillary equipment costs, production costs, overhead and other cost provisions.
  - 2) Production Costs. Statement as to production costs or projected production costs.

3) Other requirements (contracts, etc.) or costs that have an direct or indirect influence on MER.

4) Recovery Factors (longwall, room-and-pillar and development).

- Submit approved roof-control plan and ventilation plan for the Dugout.
- Abandonment. Briefly discuss the planned methods for properly abandoning all drill holes, shafts, pits, adits, or other opening, including access and haul roads (temporary and permanent) and the removal of all equipment, materials and facilities to protect the unminable recoverable coal reserves and other resources.
- Additional maps as required in Enclosure 1.

BLM has determined that the information contained in the R2P2 for the Soldier Canyon Mine and Dugout Canyon Mine does in part satisfy the Mineral Leasing Act of 1920, as amended, the regulations at 43 CFR 3480 and the lease terms and stipulations. However, the concerns identified above must be addressed. Upon resubmittal of the R2P2 with the required information, a final review will be performed. If you have any questions, please contact George Tetreault at the Price Field Office at (435) 636-3604.

Sincerely,

**MARK E. BAILEY**

Acting Field Manager

Enclosure  
R2P2 Requirements

cc: UT-921, SD, Utah (w/Enclosure)  
Utah Division of Oil, Gas and Mining (w/Enclosure)  
355 West North Temple Street  
3 Triad Center Ste.350  
Salt Lake City, Utah 84180-1203  
Ranvir Singh (w/Enclosure)  
Office of Surface Mining  
Reclamation and Enforcement  
1999 Broadway, Suite 3320  
Denver, Colorado 80202-5733

## ENCLOSURE 1

### R2P2 REQUIREMENTS

The R2P2 is the plan required by Section 7(c) of the Mineral Leasing Act (MLA). The Permit Application Package (PAP), including the R2P2, is submitted to the Assistant Secretary - Lands and Minerals Management, in accordance with Section 523 of Surface Mining Control and Reclamation Act. The Bureau formally recommends approval or disapproval of the R2P2 in Utah to Division of Oil, Gas and Mining (representing Office of Surface Mining Reclamation and Enforcement (OSM)) as part of the approval process. The R2P2, at a minimum, must meet the requirements of:

1. The MLA of 1920, as amended and supplemented,
2. The regulations at 43 CFR 3480,
3. The lease terms and conditions, and
4. Maximum Economic Recovery (MER).

Resource Recovery and Protection Plans include practices to: recover efficiently the recoverable reserves subject to these rules; avoid wasting or damage to or degradation of coal-bearing formations; ensure MER of the Federal coal; and ensure that other resources are protected during exploration, development, and mining, and upon abandonment.

Mining Plan means an operation and reclamation plan that must be approved pursuant to Section 7(c) of MLA, prior to commencement of operations that might cause a significant disturbance to the environment. The "mining plan" must show that the proposed operation meets the requirements of MLA for development, production, resource recovery and protection, diligent development, continued operations, MER and the regulations of 43 CFR Part 3480 for the life of mine, containing all requirements set out at 43 CFR 3482.1(b), and that must be approved prior to commencement of operations.

All data and plans for operations on Federal lands submitted shall be available for inspection under the Freedom of Information Act (FOIA), as amended, except that proprietary geological and geophysical data and interpretation of such data, maps, trade secrets, and financial information required to be submitted shall not be available for inspection without the consent of the lessee.

*In order to allow for an expedited review of the R2P2, the Permit Application Package (PAP) should include an individual volume(s) containing all the required information and data, marked as the R2P2. All required data which is clearly duplicated in other portions of the Permit Application Package or other submittals (i.e., MSHA) may be used to fulfill the requirements of 43 CFR 3480, provided the cross-reference is clearly stated. A copy of the relevant portion must be included in the R2P2 (43 CFR 3482.1(c)(6)). All items that are relevant (mining or mining related) must be included in the Resource Recovery and Protection Plan.*

#### I. Mining Plans (3482.1(b))

##### A. Introduction

- 1) Names, addresses and telephone numbers of persons responsible for operations to be conducted under the approved plan to whom notices and orders are to be delivered and name and addresses of the operator/lessees.
- 2) Federal lease numbers.

##### B. Description of Existing Area

- 1) Surface topography, use and surface and subsurface ownership.

General description and map of regional features, including topography, transportation networks, population centers, cultural and recreation facilities, other mines, surface and mineral ownership within the area and land usage.

2) Geologic conditions.

A brief but precise description and map of the geology and soils of the area including types, extent, lithologies, structural features such as bedding, faults, folds, thicknesses, significant physical characteristics of the deposit; and also describe the location, characteristics, and evaluation of any potential geologic hazards (e.g., slides, faults, sink holes, etc.).

C. Proposed Mining Activity

1) Development drilling program (surface and in-mine).

Include access, methods, time sequence, duration, expected depth, types of logging, equipment (type and size), abandonment methods and site restoration.

2) Description of resource - nature, extent, recovery.

a) An estimate of the coal reserve base, minable coal reserve and recoverable coal reserves for each Federal coal lease within the R2P2.

b) Detailed description of the mineral resources determined to exist beneath the leased lands including grade (e.g., for coal, BTU content, ash, water, sulphur, volatile matter and carbon content) and present estimates of recoverability. Justification for not mining the full thickness if only part of a coalbed will be mined; justification for mining only a particular bed if multiple beds are present so that future environmental disturbance through resumption of mining will be minimized; and consideration given to ensuring the maximum practical recovery of the mineral resource.

c) If the R2P2 covers an LMU, the coal reserve base, minable coal reserve and recoverable coal reserves for the non-Federal lands will be included in the R2P2.

3) Detailed mining methods.

This section shall include detailed schedules of anticipated rates of mine production accompanied by complete descriptions of the mining method(s) to be employed throughout the life of the operation, including schedules of projected mine development utilizing maps, cross-sections, diagrams, etc.

a) For underground mining - the above would include details related to such items as estimated number, size, depth, and location of adits, shafts, and ventilation schemes and openings; room-and-pillar layouts, longwall panel layouts and/or combination layouts; information on whether the entire thickness of the commodity is to be mined or whether part is to be left for floor or roof support; recovery factors; transportation, haulage, and handling systems (flow diagram); type(s) of ground support; explosives--types(s) and methods of use; types, size, specifications and scheduling of production equipment; mine dewatering plans and equipment; mine power and utility systems; distribution system; and schedules of personnel requirements, including skill breakdown.

4) Beneficiation and Coal Preparation.

A detailed description and location map of all beneficiation or preparation facilities including size, recovery factors, waste products, use, major equipment and processes, chemical types and quantities and flow diagrams of the anticipated processing and upgrading operations.

5) Abandonment.

Briefly discuss the planned methods for properly abandoning all drill holes, shafts, pits, adits, or other opening, including access and haul roads (temporary and permanent) and the removal of all equipment, materials and facilities to protect the unminable recoverable coal reserves and other resources.

D. Proposed Reclamation Activity

1) Schedule.

- a) An estimated timetable for the removal of all equipment and materials from the mine, including but not limited to hazardous and toxic materials.
- b) Land-disturbing activities including topsoil removal and storage, overburden removal and disposal, tailings disposal, pit excavation, surface construction, roads, powerlines, etc.
- c) An estimated reclamation timetable including grading, backfilling, contouring, topsoil replacement (including methods for avoiding excessive soil compaction during wet weather), soil conditioning and stabilization, cultivating, seeding, and pit wall reduction. Consideration must be given to making the reclamation operations consistent with applicable state and local land use plans and programs. Reclamation shall be undertaken as contemporaneously as practicable with mining.

2) Reclaimed land forms - alternatives.

A description and topographic map(s) showing land form changes and water impoundments with time and the ultimate land forms upon completion of mining; including the consideration given to developing reclamation in a manner consistent with local physical, environmental, and climatological conditions and current mining and reclamation technology. Alternative land forms should be proposed.

3) Techniques.

- a) Techniques and equipment for topsoil removal, storage, erosion prevention, replacement and stabilization.
- b) Techniques and equipment for land form shaping, erosion prevention, and stabilization; including logs and analyses of core samples and a description of the method of depositing the spoils based on these samples.
- c) Techniques and equipment for topsoil replacement, soil conditioning (mulching, fertilization, discing, harrowing, etc.).
- d) Planting techniques and schedules, seed mixture, rationale for seed mixture selection, alternate plant species, effect of climatic conditions.
- e) Planned supplemental watering practices and irrigation if applicable.

4) Costs.

An estimate of the cost per acre of reclamation including a separate breakdown for the cost of backfilling and grading, replacement of topsoil, seeding and/or planting, irrigation, fertilizing, and maintenance.

## E. Maximum Economic Recovery (MER) Determination

Explanation of how MER of the Federal coal is achieved. If a coalbed or portion thereof, is not to be mined or is to be rendered unminable by the operation, the operator/lessee shall submit appropriate justification. The 43 CFR 3482.2(a)(2) states, No resource recovery and protection plan or modification thereto shall be approved which is not found to achieve MER of the Federal coal. The determination of MER shall be made by the authorized officer based on the review of the R2P2. MER is defined within 43 CFR as meaning, based on standard industry operating practices, all profitable portions of a leased Federal coal deposit must be mined. At the time of MER determinations, consideration will be given to: existing proven technology; commercially available and economically feasible equipment; coal quality, quantity, and marketability; safety, exploration, operating, processing and transportation costs; and compliance with applicable laws and regulations. The requirements of MER does not restrict the authority of the authorized officer to ensure the conservation of the recoverable coal reserves and other resources and to prevent the wasting of coal. To ensure that adequate data is available for the MER determination, the following is required:

- 1) **Mining Costs.** A description of the cost for all mining equipment, associated equipment, personnel costs, ancillary equipment costs, production costs, overhead and other cost provisions.
- 2) **Production Costs.** Statement as to production costs or projected production costs.
- 3) **Other requirements (contracts, etc.)** or costs that have an direct or indirect influence on MER.

## II. Maps

All maps submitted in connection with exploration or mining plans shall include the following information as appropriate to the proposed operation:

### A. General - All maps or aerial photos should show:

- 1) Mine name; lessee's name; lease number; county; sections, townships(s) and range(s); and lease boundary lines.
- 2) LMU boundary line, if applicable.
- 3) Map scale; register of map extension dates; and true north designation.
- 4) Legend describing all symbols on map.
- 5) Public survey land lines and corners, distance from mine opening to corner, outline of lease boundary.
- 6) Locations and surface elevations of drill holes.
- 7) Numbers of permanent survey stations.
- 8) The mine workings.
- 9) Topographic, cultural, and natural drainage features, roads, and vehicular trails; name of watershed, and location of surface streams or tributaries.

### B. Surface maps for underground mines should also show:

- 1) General topography and existing surface improvements.
- 2) Surface ownership and boundaries.

- 3) Coal outcrop showing dips and strikes.
- 4) Location of planned roads; railroad trackage; buildings and other improvements; refuse or waste disposal areas; ore storage; drill holes; mine portals; and erosion-control structures including dams, and settling or treatment ponds.
- 5) Isopach maps of each coalbed to be mined and the overburden and interburden.

C. Underground mine operations maps should also show:

- 1) Planned mine layout including location and dimensions of shafts, slopes, drifts, main haulageway, air courses; entries and barrier pillars; and proposed widths of all slopes, rooms and crosscuts.
- 2) All mine workings and worked-out areas; a mineral section at each entry face; location of surface mine fans; position of all fire walls, dams, main pumps, fire pipelines, permanent ventilating stoppings, doors, overcasts, undercasts, permanent seals and regulators; direction of the ventilating currents in the various parts of the mine; sealed areas, known bodies of standing water in or above the mine workings; areas affected by squeezes; the elevations of all surface and underground levels of all shafts, slopes, drifts; and the elevation of the floor or bottom of the mine workings at regular intervals in main entries, panels, or sections, and sump areas.
- 3) Typical structure cross sections showing all coal contained in the coal reserve base. Cross-section maps should depict the following information:

The nature and depth of the various state of over-burden; the location and quality of any subsurface water encountered; the nature of the stratum immediately above and beneath the zone to be mined; all mineral crop lines and the strike and dip of the beds to be mined; existing or previous surface mining limits; locations and extent of known workings; location of aquifers; estimated elevation of the water table and appropriate cross sections of the anticipated final surface configuration that will be achieved pursuant to the operator's proposed reclamation activities.

- 4) Planned sequence of mining.
  - a) Underground mine - General layout of proposed underground mine showing planned sequence for the first five (5) years, thereafter, in five year increments;

E. Other:

- 1) All excavations/extractions in each separate bed shall be shown in such a manner that production for any royalty period can be accurately ascertained.
- 2) Accuracy of maps furnished shall be certified by a professional engineer, professional land surveyor, or other professionally qualified person.