

B.1 APPLICANTS' STANDARD OPERATING PROCEDURES

The applicants have stated that the following procedures will be followed in the construction, operation, and abandonment of the proposed Riley Ridge Project. These procedures are somewhat general; measures which are more specific to each applicant and project component will be contained in the final Construction and Use (CU) Plan.

- Drilling.
Solid wastes generated during drilling operations and testing would be incinerated as approved by the regulatory agencies or trucked to an approved sanitary landfill. At the conclusion of the drilling operation, or as needed, ash would be removed from the incinerator and placed in an approved sanitary landfill with non-combustible wastes. Any scrap metal would be sold to a recycling firm. Sewage would be handled according to state sanitary codes. At the conclusion of drilling operations, all sewage and waste would be removed from the site and taken to an approved sewage treatment plant or sanitary landfill.
- All above-ground facilities, foundations, and salvageable materials would be removed. Soil material would be restored over the well and the site returned to its original contour as soon as the well abandonment was completed. Each completed well site would be reseeded by the next growing season using techniques and methods described in the Erosion Control, Revegetation and Reclamation Program.
- Cement plugs would be placed at designated depths in the well to prevent migration of water or hydrocarbons and to protect any freshwater aquifers from contamination in accordance with applicable state and federal regulations.
- Pipeline Construction.
Construction activities would be confined to the construction right-of-way along the length of the gathering lines, trunk lines, and sales lines. Only those portions of the right-of-way needed for construction would be cleared of obstacles and debris.
- Blading of the right-of-way would only be done as necessary for access for machinery and equipment, or for the trenching required for the installation of pipe. To further ensure vehicle safety, it may be necessary to construct temporary bridges or culverts across creeks and gullies on the working side of the right-of-way. Excavation and grading may be necessary to decrease the gradient

and increase the stability of unstable slopes, especially in the steep terrain found in the well field. Grading and cut-and-fill excavation would be performed in a manner minimizing effects on natural drainage and slope stability. On steep terrain or in wet areas where the right-of-way must be graded at two elevations, or where diversion dams must be built to facilitate construction, the areas would be stabilized and restored upon completion of construction to resemble their original condition, or as required by the surface management agency or private landowner.

- Where fences are encountered along the right-of-way, adequate bracing would be installed at each edge of the right-of-way prior to cutting the wires and installing temporary gates. The opening would subsequently be controlled as necessary during construction. No gates or cattleguards on established roads over public land would be locked, blocked, or closed by the applicants. Any cattleguard damaged would be repaired to its original condition or replaced. If a natural barrier used for livestock control were damaged during construction, the applicant would adequately fence the area to prevent the escape of livestock.
- The depth of the pipeline ditch would vary with the conditions encountered. The cover from the top of the pipe to the ground level would generally be 2.5 to 5 feet. However, in areas where rocks would be removed by blasting, the cover would be 24 inches in populated areas and 18 inches in open country. At railroad and road crossings, specifications require a minimum of 3 feet of cover over the pipe at the drainage ditches along the roadbed. Working areas of approximately 100 by 350 feet would be needed on each side of road and railroad crossings.
- Generally, ditching operations would employ ditching machines in open areas and backhoes near rivers or in areas providing little working space; however, subsurface conditions may require different types of excavation. In areas where loose or unconsolidated rock is encountered, the ditch line may be ripped mechanically. If material encountered could not be ripped, it would be blasted. Blasting would be kept to a minimum and used only when necessary. An exception to mechanical excavation would be hand-digging to locate buried utilities such as other pipelines and cables.
- If blasting is necessary, the following safety precautions would be adhered to:
 - 1) In areas of human use, shots would be blanketed (matted).
 - 2) Landowners or tenants in proximity to the shot would be notified in advance so that livestock and other property could be adequately protected.
 - 3) Before detonation, a clearance would be made to ensure that construction personnel and equipment and local residents are in no danger.

4) Fire protection measures would be implemented.

- Where buried utilities are encountered, representatives from the utilities would be consulted regarding the proposed route of the pipeline right-of-way.
- When crossing canals or irrigation ditches that are dredged to maintain depth, the pipeline would either span overhead or be buried underneath to a depth that would permit safe dredging operations.
- Roadbeds that support railroads would be crossed by boring a hole beneath the bed, rather than by ditching across the surface. All paved and improved roads would be crossed by boring where conditions permit. Other infrequently used, unimproved roads would be ditched and restored.
- Where the pipeline crosses rivers, the river crossing points would be carefully selected to minimize disturbance of riverbeds or banks.
- Creek flow would be maintained during pipeline construction. When crossing creeks with muddy bottoms, downstream sedimentation would be minimized by implementation of the following techniques: (1) Creeks flowing in areas where the channel is narrow would have the flow diverted around the construction area by blocking the channel upstream of the crossing site and diverting the flow through the use of pumps and/or flumes; (2) Creeks flowing in relatively flat areas where the channel is wide would have the flow diverted around the construction area by blocking a portion of the channel upstream of the crossing site. After construction is completed in that portion of the channel and the creek bottom is restored, then that portion of the channel would be reopened and the other portion blocked for construction.
- Every effort would be made to minimize the effects of construction on water flow. Upon completion of construction, the gradient of the stream would be restored as nearly as practical. Stream banks would be restored to resemble original grade, and breakers or riprap would be placed along riverbanks where necessary to control erosion.
- During construction of river crossings, the drainage or storm runoff from riverbank staging areas would be controlled via detention basins, evaporation pits, or straw bale filters to ensure that levels of suspended solids, grease, or oil would not exceed receiving water standards.
- Once the ditch has been backfilled, the right-of-way and other disturbed areas would be cleared of trash, brush, and other debris to prevent fire hazards. Some brush would be used to assist in stabilization and rehabilitation of the right-of-way. The right-of-way would be graded where needed, and all disturbed surfaces would be restored approximately to the preconstruction grade.

- Completed construction areas (including the right-of-way) and temporary access roads would be returned as nearly as practicable to the original condition or to that condition agreed upon between the applicant and the landowners or the authorized officer of the applicable agency. Right-of-way restoration techniques would be the same for federal, state, and private lands. All reasonable efforts would be made to control erosion and soil damage resulting from construction, rehabilitation, or maintenance and operations, including (but not limited to) construction of terraces, water bars, or other water diversion structures, and implementation of soil stabilization measures in erosion-prone areas.
- Routine aerial reconnaissance flights along pipelines would continue for the life of the project to check for erosion problems and revegetation success as well as possible gas leaks.
- Sulfur Pipeline.
Overhead clearance warning structures would be placed on secondary roads prior to the sulfur pipeline crossings.
- Specific construction techniques would be selected for each creek crossing that would minimize erosion and siltation. Where the creek has a solid gravel base, permission would be requested for vehicle crossings; where an access road is in proximity, the existing access road would be used. Where the flow is too deep for vehicles to cross or the creek has a muddy bottom and there is no access road in proximity, flume pipes would be installed in the creek bottom and a roadway constructed on top for vehicle passage.

Where the pipeline would cross creeks, the supports would be located and would be of such a depth, that high water would not affect the pipeline through scour action. Construction of creek crossings would be made in a manner that minimizes the effects of construction on water flow. The gradient of the stream would be maintained by removing all spoil from the creek bed upon completion of construction, and the creek banks would be restored.

- The right-of-way would be rehabilitated following construction. During the operation phase of the project, the right-of-way would be allowed to revegetate with shrubs; however, trees growing where they could fall across the pipeline would be removed as necessary.
- Other.
Other warning vehicles would accompany mobile heavy equipment on roads used by the public; signs would be installed warning the public of equipment operation areas.
- Quasar, Exxon, and Northwest would dispose of miscellaneous solid waste in an off-site approved sanitary landfill which has not been identified. Scrap metal produced by project construction would be sold to a recycling firm. Used oils, lubricants, and solvents generated during both the construction and operations phase of the project would be collected in tanks on the plant site until sufficient quantities are accumulated to sell these wastes to a re-refining firm.

- When the transmission line is complete, work areas would be cleaned and all trash collected. Dirt piles would be smoothed out; areas which have been cleared may be scratched and reseeded, if needed; and any access roads would be reclaimed.
- Operation of the transmission lines would involve patrolling the lines every month by fixed-wing aircraft, every six months by helicopter, and every year by foot patrol.