**MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY**
**PERMITTING AND COMPLIANCE DIVISION**

# RECORD OF DECISION
# for
# Silver Bow Generation Project
# March 14, 2002

## I. Introduction and Background

Continental Energy Services, Inc. (CES), proposes to build a natural gas-fired combustion turbine generation plant, the Silver Bow Generation Project, and related facilities on a 20-acre site in the Silicon Mountain Technology Park west of Butte, Montana, in Silver Bow County. The plant would use two natural gas-fired combustion turbines and one matched steam turbine for a nominal generation capacity of 500 megawatts.

In conjunction with the proposed generation plant, The Montana Power, L.L.C. (MPC LLC), formerly The Montana Power Company, proposes to build three 20-inch-diameter loops on its Cut Bank to Morel natural gas pipeline. Additional compression capacity would be installed at two existing compressor stations, and one new compressor station would be built. Finally, a 16-inch-diameter pipeline would be built to connect the generation plant with the main pipeline.

A Draft Environmental Impact Statement (EIS) was prepared to examine the impacts of the proposal and alternatives. The Final EIS adopted the draft as final with modifications.

The Montana Department of Environmental Quality (DEQ) must decide whether to issue several permits needed by CES and MPC LLC. CES would need a Montana Pollutant Discharge Elimination System (MPDES) permit for the discharge of wastewater from the generation plant. CES would also need an air quality permit to operate the plant. MPC LLC would need a new air quality permit to operate the new compressor station and alterations to existing air quality permits to cover modifications to the two existing compressor stations. MPC LLC also must obtain authorization for use of narrative turbidity and total suspended sediment standards pursuant to 75-5-318, MCA, for its stream crossings.

If DEQ decides to issue the permits, it must further decide which alternative to implement, and what mitigation measures should be applied to reduce environmental impacts. The decision is documented below.

## II. Decisions

After considering the proposal, issues, alternatives, potential impacts, and management constraints, DEQ has selected the alternative known as “Proposed Action with Mitigation Measures”, or, simply “Mitigation Alternative”. The Mitigation Alternative is approved for implementation as described in this Record of Decision (ROD).

Mitigation measures to reduce environmental impacts of the proposal are described in Chapter 2 of the Draft EIS. Many mitigation measures in the Mitigation Alternative are not within DEQ's statutory authority to impose without the permit applicant's consent. CES and MPC LLC have agreed to implement several of these mitigation measures, as described in section III.A below, and the measures are imposed at the project sponsors' request pursuant to § 75-1-201(5)(b), MCA. These mitigation measures will become enforceable conditions of the permits and authorizations.

## III. Conditions

### A. Applicant Accepted Conditions

Generation Plant Exhaust Stack Lighting: CES shall provide the Federal Aviation Administration (FAA) with information regarding residential land uses surrounding the generation plant and industrial park, and identify preferred lighting for the exhaust stacks that does not include strobe lights if omission of strobe lights meets FAA and other governmental regulations.

Maintenance of Adequate Instream Flow: CES shall request the Upper Clark Fork River Basin Steering Committee (Committee) to develop a Water Management Plan for the basin that adequately addresses minimum instream flows in Warm Springs Creek, for the protection of the fishery. Required reasonable funding for a facilitator will be provided by CES to help develop the Management Plan. The Management Plan will be designed to manage releases from the Silver Lake Water System (SLWS) that would (1) enable Lower Warm Springs Creek (at Warm Springs) to maintain a flow of no less than 16 cfs during the entire year and (2) enable Butte-Silver Bow (BSB) to use all water rights allocated for development of the Silicon Mountain Technology Park. The low flow condition of 16 cfs is not designed or anticipated to be a long-term flow condition. CES shall strive to have the water management plan fully developed prior to the operation of the proposed power plant. CES in cooperation with BSB will also agree to work with Montana Fish Wildlife and Parks (FW&P) to improve the SLWS by installing screens and fish passages where necessary to protect the fishery. CES understands that BSB has also agreed to maintain a flow in Twin Lakes Creek during active diversion of that stream to the SLWS.

CES shall further enhance the process by monitoring water flows at the USGS gauging station No. 12323770 in Lower Warm Springs Creek. If flows drop below 18 cfs during any time of the year CES shall notify BSB, ARCO and the Committee and work with them toward the goal of increased flows. This increase could be accomplished through increasing storage withdrawal, decreasing irrigation, or decreasing active diversion to maintain the minimum instream flow of 16 cfs at the Lower Warm Springs USGS gauge No. 12323770 located near the town of Warm Springs.

Land Application: CES shall include in the Weed Control Plan a provision to vegetate sprinkler discharge sites with salt-tolerant species such as tall fescue and monitor the efficiency of salt removal via plant uptake. If loss of vegetation occurs, CES shall modify the land application operation and/or location to result in healthy vegetation.

Native Species Planting: CES shall include in the Weed Control Plan a provision to plant native species in areas disturbed by project activities and not permanently occupied by project facilities.

Noise: CES shall implement noise control measures at the generation plant such as silencers for decreasing noise generated by combustion turbines, heat recovery steam generators, and steam turbines to comply with the TIFID noise limits during normal operations.

Apiary Sites: Prior to building of the gas pipeline, MPC LLC shall coordinate between construction activities and the beehive operators. It may be possible to relocate hives within the same apiary site; causing the hive to be situated in an area farther away from construction activities. Beekeepers typically rotate bees between apiary sites. Ideally, hives must be relocated to another registered apiary site during the period of pipeline construction.

Superfund Sites: MPC LLC shall coordinate with ARCO to include pipeline construction in the ARCO long-term Management Plan for wildlife conservation at the Warm Springs Pond Superfund Site.

Placement of Construction Materials: No material may be left in the stream channel after completing construction activity.

Pipeline Cover Monitoring: MPC LLC shall arrange for the inspection of pipeline integrity and cover depth at perennial stream crossings on a routine basis (at least once a year), in accordance with other regularly scheduled patrolling pursuant to 49 CFR 192.705.

Silver Creek Crossing – Soils: MPC LLC shall ensure appropriate disposal of contaminated fill material, if present, such that fish are not affected. MPC LLC shall conduct soils analysis to determine levels of contamination.

Fish Entrainment Protection: MPC LLC shall ensure that screen intake pipes for hydrostatic test water are installed with the smallest practicable screen to reduce risk of fish entrainment.

Whirling Disease Mitigation: MPC LLC shall require contractors to clean all equipment or other items used for in-stream construction that have been in a whirling disease contaminated stream to FWP standards for preventing the spread of whirling disease.

Stream Crossing Timing: MPC LLC shall strictly adhere to timing windows recommended by FWP to ensure that streams are crossed at the least damaging period of year for impacts to fish.

Topsoil Salvage: Pipeline construction activities resulting in soil excavation must salvage the uppermost topsoil horizon(s) and stockpile the materials for reclamation coversoil after regrading. At a minimum, topsoil salvage depth must include all horizons dominated by organic material or containing an accumulation of organic matter to a depth of 12 inches.

Multiple Horizon Soil Salvage: For agricultural lands, soil and salvage operations must include multiple horizons (i.e. topsoil and subsoil) salvaged separately and replaced sequentially to help mitigate the potential loss of soil productively.

Soil Compaction Minimization: All salvaged coversoil must be respread over the regraded trench using tracked equipment to minimize soil compaction.

100-year Flood Plain: Temporary access roads must be located, to the maximum degree, on soils outside the 100-year floodplain.

Reseeding: MPC LLC shall include in the Weed Control Plan the provisions that all disturbed areas will be reseeded with site-adapted seed mixtures and adequate seed rates of pure live seed in the first appropriate season (Spring or Fall) after construction and at the landowners' discretion. Areas disturbed by the Project that supported native vegetation will be revegetated with native species.

Temporary Cover of Disturbed Areas: MPC LLC shall reseed in the same year for all construction completed by August 31, or at landowners' discretion.

Minimize Vegetation Cleanup: Existing vegetation may only be cleared from areas scheduled for immediate construction work and only for the width needed for active construction activities.

Revegetation Reclamation: MPC LLC must monitor revegetated areas and implement remedial revegetation if necessary until reclamation is successful.

Botanical Surveys: MPC LLC shall perform pre-construction botanical surveys (weed inventory) of staging yards, contractor yards, and other associated facilities and mitigate if noxious weeds are not controlled in reclaimed areas.

Riparian Vegetation: MPC LLC shall mow or cut, rather than blade, woody riparian and wetland vegetation to the extent practicable.

Riparian Reclamation: When practicable, MPC LLC shall plant comparable native woody species in areas where woody riparian vegetation is disturbed and mitigate disturbances of high-quality riparian areas.

Special-Status Plants: MPC LLC shall use narrowed right-of-way or, where possible, minor reroutes to minimize or avoid impacts to special-status plant populations.

MPC LLC and Contractor Compliance: MPC LLC shall ensure contractors adhere to all mitigation measures. MPC LLC will provide an environmental inspector during pipeline construction.

Pollution Prevention: All vehicles and equipment utilized during pipeline construction shall be clean, in good repair, and without leaks or oil, gasoline, diesel, or other materials which would

contaminate stream water quality. The contractor or MPC LLC shall conduct daily equipment inspection for leaking oil and fuel.

Big Game Avoidance: MPC LLC shall consult with FWP to develop timing restrictions to avoid constructing in big game winter range during critical periods.

### B. Agency Imposed Conditions

Silver Bow Generation Plant Air Quality Permit #3165-00:

The air quality permit imposes limits on gaseous and particulate emissions from the turbines and duct burners, annual duration of operations, opacity, and particulate emissions from parking lots and roads. Reporting, record keeping, and notification requirements are also imposed. Details can be found in the attached permit.

Rationale: These measures are needed to ensure compliance with air quality standards and state and federal regulations.

Montana Power Company Mainline #1 Air Quality Permit #2428-07:

The air quality permit imposes limits on gaseous emissions from the compressor engines, annual duration of operations, and particulate emissions from parking lots and roads. Reporting, record keeping, and notification requirements are also imposed. Details can be found in the attached permit.

Rationale: These measures are needed to ensure compliance with air quality standards and state and federal regulations.

Montana Power Company Mainline #3 Air Quality Permit #2997-04:

The air quality permit imposes limits on gaseous emissions from the compressor engines, annual duration of operations, opacity, and particulate emissions from parking lots and roads. Details can be found in the attached permit.

Rationale: These measures are needed to ensure compliance with air quality standards and state and federal regulations.

Montana Power Company Mainline #4 Air Quality Permit #3170-00:

The air quality permit imposes limits on gaseous emissions from the compressor engines, annual duration of operations, opacity, and particulate emissions from parking lots and roads. Details can be found in the attached permit.

Rationale: These measures are needed to ensure compliance with air quality standards and state and federal regulations.

Silver Bow Generation Plant MPDES Permit No. MT-0030627:

The MPDES permit imposes limits on the quality of wastewater effluent at the three outfalls: Silver Bow Creek, Sheep Gulch, and the land application and disposal area. Details can be found in the attached permit.

Rationale: These measures are needed to ensure compliance with water quality standards and state and federal regulations.

Dearborn River Crossing: MPC LLC shall employ a trenchless or dry crossing of the Dearborn River. If a dry crossing is employed, MPC LLC shall notify FWP with enough time to allow a FWP biologist to be present to conduct fish capture if necessary and shall comply with FWP requirements regarding diversion structures, reseeding disturbed areas, whirling disease mitigation measures and timing restrictions.

Rationale: An authorization for narrative standards for turbidity and total suspended sediment is required pursuant to 75-5-318, MCA.

Dry or Trenchless Crossing: MPC LLC shall employ mitigated dry or trenchless crossing of the Sun River, the Backwater of the Teton River, Jones Creek, Muddy Creek, Spring Creek, Big Coulee Creek Flat Creek and Silver Creek.

Rationale: Authorizations for narrative standards for turbidity and total suspended sediment are required pursuant to 75-5-318, MCA.

## IV. Implementation

This decision is effective upon signing of this ROD. The air quality permits become effective 15 days after signing of this ROD, unless they are appealed to the Board of Environmental Review within 15 days. The MPDES permit is effective upon signing of this ROD.

### A. Other Rights and Permits

Approval of the permits does not convey or create any real property rights or use rights.

CES and MPC LLC are responsible for obtaining any property rights, easements, or water rights necessary to implement the permits. CES and MPC LLC are responsible for obtaining any other local, state, or federal permits, licenses, or reviews that might be necessary to implement the permits.

## V. Issues and Alternatives

The EIS and this ROD have been prepared in response to CES's and MPC LLC's permit applications and issues and concerns identified through public comment. An alternative was developed to address significant issues. These issues and the alternative are summarized below and presented in detail in the Draft EIS. The preferred alternative identified in the Draft EIS is

the Mitigation Alternative. This alternative has also been selected for implementation following preparation of the Final EIS. This decision took into account the impacts of the alternatives as well as public comment and the potential for the alternatives to resolve the issues.

Public Scoping and Comments

Public scoping meetings were held in Ramsay on September 19, 2000, in Helena on November 9, 2000, in Helena on March 19, 2001, in Choteau on March 20, 2001, and in Butte on September 13, 2001.

The Draft EIS was released on December 21, 2001. The Draft EIS presented three alternatives, including the no action alternative, CES and MPC LLC's proposed action, and the preferred alternative. The Draft EIS disclosed the affected environment and the environmental consequences of each alternative.

Public hearings were held in Choteau on January 16, 2002, in Helena on January 17, 2002, and in Butte on January 19, 2002, to receive oral comments on the Draft EIS. A total of about 40 people attended the three hearings. DEQ also received 14 written and electronic comments. The public comment period ended January 22, 2002.

All comments on the Draft EIS were reviewed and considered. The Final EIS adopted the draft as final with modifications. Comments that presented new data, questioned facts or analysis, or raised questions or issues bearing directly on the alternatives or environmental analysis received a response in the Final EIS. Comments expressing personal opinions were considered but no response was prepared.

### A. Issues and Alternative Development

Chapter 1 of the Draft EIS describes the issues raised by agency specialists and the public. The issues are summarized below.

Land Use

- Impacts from noise and dust from construction of the generation plant and pipeline
- Visual impacts from cooling tower lighting and steam emissions at the generation plant
- Impacts to recreational fishing from reduced instream flows and streambed disturbance.

Geology

- Impacts to pipeline integrity from unstable geology and steep slopes.

Soils

- Impacts from sedimentation into streams and water bodies during construction activities.

Water

- Impacts to water quality in Silver Bow Creek from wastewater discharged from the generation plant.
- Impacts to water quality in Sheep Gulch from wastewater discharges

- Impacts to groundwater quality from the land application and disposal process.
- Impacts to surface water from sedimentation caused during pipeline construction. Impacts to existing water users on Warm Springs Creek from withdrawals for process water for the operation of the generation plant.

Wetlands

- Impacts to wetlands from pipeline construction

Vegetation

- Impacts to native vegetation from disturbance of the pipeline right of way and generation plant construction.
- Impacts to noxious weed control

Wildlife

- Impacts to nesting raptors, mountain plover and bighorn sheep from pipeline construction.

Fisheries and Aquatics

- Impacts to fisheries from sedimentation during pipeline construction, particularly to streams that contain spawning trout and/or native salmonid species.

- Impacts from water use and potential dewatering in Warm Springs Creek and water discharge into Silver Bow Creek.

Socioeconomics

- Impacts to tourist economy from loss of or impairment of the Missouri River Fishery**.**
- Impacts to MPC LLC rate payers due to proposed pipeline construction costs

Health and Safety

- Impacts from electric and magnetic field (EMF) effects from the Silver Bow to ASiMI 161 kV transmission line.

Air Quality

- Air quality impacts due to emissions from the generation facility, as well as potential natural gas releases from the compressor stations.

Infrastructure

- Develop an Emergency Response Plan which includes but is not limited to: Notification system for local emergency services, et al; rerouting traffic; detour route for commercial trucks (interstate route only); actions to minimize affected area; repair of the affected roadway and right-of-way; repair of the detour route(s).

### B. Alternatives Considered in Detail

Chapter 2 of the Draft EIS describes the alternatives analyzed and the alternatives excluded from detailed analysis. The alternatives that were studied in detail are the Proposed Action, Proposed Action with Mitigation Measures, and No Action.

### C. Environmentally Preferred Alternative

The No Action alternative, which would be denial of the air quality and MPDES permits and narrative standards authorizations, is the environmentally preferred alternative. Without the permits, the Silver Bow Generation Plant could not operate and likely would not be built. If the generation plant is not built and operated, the pipeline upgrades would not be built. The environmental impacts associated with the Silver Bow Generation Plant and with the pipeline expansion would not occur.

## VI. Rationale for the Decisions

### A. Rationale for the Selected Alternative

DEQ has selected the preferred alternative, the Mitigation Alternative, after considering the potential impacts of all of the alternatives. The selected alternative minimizes the adverse environmental impacts of the Proposed Action by imposing statutorily authorized conditions and conditions that CES and MPC LLC have volunteered to implement. The applicants' objectives, as described in the Proposed Action, would be appreciably accomplished.

DEQ has selected this alternative over the No Action Alternative because it meets all requirements of state statutes and rules. DEQ has selected the Mitigation Alternative over the Proposed Action because it provides for mitigation of environmental impacts that otherwise might occur under the Proposed Action.

### B. Selected Alternative Compliance with Legal and Policy Mandates

This section explains how the selected alternative satisfies DEQ's major statutory, regulatory, and policy mandates.

Clean Air Act of Montana

Requirements of the Clean Air Act of Montana and the federal Clean Air Act will be met through compliance with the new air quality permits for the generation plant and the new pipeline compressor station and with the alteration to the air quality permit for the two existing compressor stations.

Montana Water Quality Act/Montana Pollutant Discharge Elimination System

Compliance with the requirements of the MPDES permit for wastewater disposal is expected to protect surface water quality in Sheep Gulch and Silver Bow Creek, and groundwater quality beneath the land application and disposal area.

MEPA Cumulative Effects Assessment

Chapter 4 of the Draft EIS provides cumulative effects analyses. There are no related future actions under concurrent consideration that, when considered in conjunction with past and present actions, are likely to result in additional significant impacts. Should future actions be proposed which have or may have cumulative effects, additional analysis pursuant to applicable requirements of MEPA would be conducted.

Private Property Assessment Act

Private property assessment checklists have been completed. The conditions imposed by DEQ in implementing the Mitigation Alternative are needed to meet the requirements of law and, therefore, do not have taking or damaging implications. The conditions that CES and MPC LLC have agreed to implement have been voluntarily accepted and, therefore, do not have taking or damaging implications.

## VII. Monitoring and Compliance

### A. Agency Monitoring

Pursuant to state law and the air quality permits issued to CES and MPC LLC, DEQ's representatives will have access to the sources at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to the permits.

Pursuant to the MPDES permit, CES must allow an authorized representative of DEQ, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance, any substances or parameters at any location.

### B. Applicant Monitoring

The following monitoring provisions are contained in the air quality permits.

Silver Bow Generation Plant Air Quality Permit #3165-00:

The air quality permit requires periodic testing of the turbines for emissions compliance, annual reporting of the emission inventory and operational periods, and notification of any changes in equipment and fuel specifications. Details can be found in the attached permit.

Montana Power Company Mainline #1 Air Quality Permit #2428-07:

The air quality permit requires periodic testing of the equipment for emissions compliance, annual reporting of the emission inventory and operational periods, and notification of any changes in equipment and fuel specifications. Details can be found in the attached permit.

Montana Power Company Mainline #3 Air Quality Permit #2997-04:

The air quality permit requires periodic testing of the equipment for emissions compliance, annual reporting of the emission inventory and operational periods, and notification of any changes in equipment and fuel specifications. Details can be found in the attached permit.

Montana Power Company Mainline #4 Air Quality Permit #3170-00:

The air quality permit requires periodic testing of the equipment for emissions compliance, annual reporting of the emission inventory, and notification of any changes in equipment and fuel specifications. Details can be found in the attached permit.

Silver Bow Generation Plant MPDES Permit No. MT-0030627:

The MPDES permit requires periodic sampling and reporting of wastewater effluent quality at all three outfalls. The constituents to be monitored, sampling frequency, and sampling methods are detailed in the attached permit.

## VIII. **Appeals Process**

Under the Clean Air Act of Montana, a person who is adversely affected by the permitting decision may request a hearing before the Board of Environmental Review. The request for hearing must be filed within 15 days after the decision and must include an affidavit setting forth the grounds for the request. A permit is not effective until the period for requesting a hearing expires without a request for hearing or until the Board decides the appeal.

Under the water quality statutes, the applicant for an MPDES permit may request a hearing before the Board of Environmental Review on a permit denial or modification. The request for hearing must be filed within 30 days of the denial or modification. The water quality statutes do not provide for administrative or judicial review of a decision to issue an MPDES permit. However, other avenues for challenging a permit may be available. Persons who wish to challenge this decision should consult with legal counsel.

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Jan P. Sensibaugh, Director Date
Montana Department of Environmental Quality