Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
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January 6, 2009

NorthWestern Energy
Rick Walsh
40 East Broadway St.
Butte, MT 59701

Dear Mr. Walsh:

The Department of Environmental Quality (Department) has made its decision on the Montana Air Quality Permit application for NorthWestern Energy's Mill Creek Generating Station. The application was given permit number 4255-00. The Department's decision may be appealed to the Board of Environmental Review (Board). A request for hearing must be filed by January 21, 2008. This permit shall become final on January 22, 2008, unless the Board orders a stay on the permit.

Procedures for Appeal: Any person jointly or severally adversely affected by the final action may request a hearing before the Board. Any appeal must be filed before the final date stated above. The request for a hearing shall contain an affidavit setting forth the grounds for the request. Any hearing will be held under the provisions of the Montana Administrative Procedures Act. Submit requests for a hearing in triplicate to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, Montana 59620.

Conditions: See attached.

For the Department,

Vickie Walsh
Air Permitting Program Supervisor
Air Resources Management Bureau
(406) 444-9741

Jenny O'Mara
Environmental Engineer
Air Resources Management Bureau
(406) 444-1452

VW: JO
Enclosures

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air and Waste Management Bureau
P.O. Box 200901, Helena, Montana 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: NorthWestern Energy
40 E. Broadway
Butte, MT 59701

Air Quality Permit Number: #4255-00

Preliminary Determination Issued: 12/19/08
Department Decision Issued: 01/06/09
Permit Final:

1. *Legal Description of Site*: NWE facility also known as the MCGS would locate near the intersection of MT-1 and county road 273 approximately 3 miles southeast of Anaconda, Montana. The property would lie within a 50-acre parcel in the NW¼ of Section 17 and the SW ¼ of Section 8, Township 4 North, Range 10 West in Deer Lodge County, Montana.

2. *Description of Project*: NWE applied to the Department for a MAQP for the construction and operation of a "regulation resource" electrical generation power plant. The plant was designed to use pipeline quality natural gas and/or ultra low sulfur fuel oil (#2) for fuel, and would provide approximately 200 MWe of energy at an average temperature of 40°F. Natural gas would be the primary fuel of choice for normal operations and startup, and would only be replaced with liquid fuels (#2 ultra low sulfur fuel oil) when natural gas cannot be transported from supply source to the project through the NWE natural gas transmission system at the rate required to operate the turbines.

   Approximately 2.5 miles of natural gas pipeline would be constructed to the plant from the existing NWE pipeline that serves Anaconda to supply natural gas to the facility. Sources of natural gas transmitted in the pipeline include gas fields in northern Montana and Canada. NWE has estimated actual fuel consumption of the plant would be approximately 3,500 million standard cubic feet (MMscf) per year of natural gas and approximately 2 million gallons per year of ultra low sulfur fuel oil (#2). In order to maintain the correct pressure of the natural gas, a compressor station (permitted separately) would be located about 2.5 miles from the facility.

   As such, NWE proposes to construct and operate a facility equipped with four Swiftpac™ generation units manufactured by Pratt & Whitney. Each of the four simple-cycle, dual fuel-fired generating units consist of two aeroderivative combustion turbines and one electric generator and are rated at 49.6 megawatts (MW).

   NWE proposes phased construction of the simple-cycle turbines along with other miscellaneous equipment, including: a 1675 horsepower (hp) emergency diesel generator, a 308 hp emergency diesel fired water pump, two above-ground 1,000,000 gallon diesel fuel tanks and two 10,000 gallon aqueous ammonia tanks. Emissions from the facility will be controlled utilizing water injection, selective catalytic reduction (SCR) and catalytic oxidation (CO).

3. *Objectives of Project*: The proposed facility would operate as a "regulation resource". NWE currently operates its balancing authority area without the benefit of owning any rate-based generation. A balancing authority is an electrical footprint of loads and resources that must be in balance at all times in order to meet operating criteria and to provide reliable service to customers.

Specifically, NWE must have tools available to balance, on a moment-to-moment basis, the difference between resource and loads within its balancing authority. Failure to provide for regulating reserves would prevent NWE from complying with the Federal Energy Regulatory Commission (FERC) approved mandatory reliability standards set out by the North American Electric Reliability Council (NERC) and the Western Electricity Coordinating Council (WECC) for instantaneously balancing resources with load responsibility. Failure to comply with the reliability standards could adversely affect wholesale and retail customers, potentially impact other balancing authorities in the Western Interconnect, and result in NERC-imposed sanctions and/or civil penalties.

Therefore, the objective of the project would be for the MCGS facility to serve as a regulating resource to stabilize the transmission grid due to non-dispatchable and unpredictable fluctuations from intermittent renewable resources, such as wind power. The MCGS was designed to stabilize moment-to-moment changes in the difference between load and generation. As a result, the facility must be available to operate 24 hours a day, 365 days per year. The facility's combined output will be approximately 200-MW power for delivery to the existing power grid.

4. *Alternatives Considered*: In addition to the proposed action, the Department also considered the "no action" alternative. The "no action" alternative would deny the issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no action" alternative to be appropriate because NWE demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no action" alternative was eliminated from further consideration.

5. *A Listing of Mitigation, Stipulations, and Other Controls*: A list of enforceable conditions, including a Best Available Control Technology (BACT) analysis, would be included in MAQP #4255-00.

6. *Regulatory Effects on Private Property*: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and would not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no action" alternative was discussed previously.

Potential Physical and Biological Effects							
		Major	Moderate	Minor	None	Unknown	Comments Included
A.	Terrestrial and Aquatic Life and Habitats			X			yes
B.	Water Quality, Quantity, and Distribution			X			yes
C.	Geology and Soil Quality, Stability, and Moisture			X			yes
D.	Vegetation Cover, Quantity, and Quality			X			yes
E.	Aesthetics			X			yes
F.	Air Quality			X			yes
G.	Unique Endangered, Fragile, or Limited Environmental Resource			X			yes
H.	Demands on Environmental Resource of Water, Air, and Energy			X			yes
I.	Historical and Archaeological Sites			X			yes
J.	Cumulative and Secondary Impacts			X			yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

The proposed facility would locate within the South Uplands Unit of the Anaconda Smelter National Priorities List (NPL) at the existing Mill Creek electrical power substation that currently covers approximately 10 acres. In total, the MCGS would have approximately 50 acres (including the existing substation) for the project area but the foot print of the facility would be less.

Impacts to terrestrial and aquatic life and habitats from construction and operation of the electric generation facility would be minor because of the relatively small portion of land that would be disturbed. Terrestrials such as livestock, deer, elk, moose, and rodents would use the general area near the facility. The area surrounding the facility would be fenced to limit access to the site. Fencing would not restrict access from all animals that frequent the area, but would discourage most animals from entering the facility.

There are no wetlands listed for the project site according to the Riparian and Wetland Research Program (RWRP) database, the Natural Heritage Wetland Program (NHWP) database, or the Department's database. However, the final design report for the South Opportunity Uplands area of the Anaconda Superfund Site indicates the presence of wetland north of the existing substation and east of the project site along Mill Creek . These wetlands were part of delineation activities that occurred in 1999 and since then the project site surface conditions have been altered to address arsenic-impacted soils. However, it is anticipated that activities associated with the proposed MCGS will have no adverse impacts on identified but altered wetlands.

Installation and connections of sewer, water, and natural gas pipelines to the site would result in minimal impact on the terrestrial and aquatic life and habitats. Installation of utilities would result in very little impact on the terrestrial and aquatic life and habitats because there would be minimal disturbance and any disturbance would be temporary and of short duration. As stated above, the area is currently occupied by the Mill Creek electrical substation and the addition of the MCGS facility would cause minor impacts to the area. Overall, the impacts from this project to terrestrial and aquatic life and habitats would be minor.

B. Water Quality, Quantity, and Distribution

There are no surface water bodies on the site and the nearest surface water body would be Mill Creek, which would be located several hundred feet southeast of the proposed facility. All applicable Department permits would be in place prior to facility construction in order to minimize impacts to Mill Creek. Wastewater from the facility would be treated on-site prior to discharging to the City of Anaconda sewer system. NWE has estimated that the maximum amount of wastewater discharged from the facility would be approximately 40,000 gpd. The City of Anaconda currently treats less than 1.0 million gpd of wastewater and according to NWE the plant's maximum capacity is 5.2 million gpd. Any additional wastewater from the MCGS facility would represent only a small portion of the average daily throughput for the City of Anaconda.

Process water for the facility is estimated at approximately 250,000 gallons per day and would be obtained from the Silver Lake pipeline. The primary use of this water would be used to control oxides of nitrogen (NOx) with wet injection coupled with an SCR for each generating unit. As proposed, MCGS operations would have no impact on the water supply for the City of Anaconda because NWE proposes to have potable water delivered by a bottled water company to the facility. Therefore, the proposed facility would result in minor impacts to water quality, quantity, and distribution in the area.

C. Geology and Soil Quality, Stability, and Moisture

Impacts to the geology and soil quality, stability, and moisture from this facility would be minor because the project would impact a relatively small portion of land and the amount of resulting deposition of the air emissions would be small. Approximately 40 acres or less would be disturbed for the physical construction of the facility and the remaining 10 acres are part of the existing Mill Creek electrical power substation. The project would be located within the Anaconda Superfund site which already has arsenic-impacted soil. According to NWE any disruption or displacement of soils during the construction project will be managed according to the Environmental Protection Agency/ARCO Soil Management Plan.

According to information provided by the applicant, available geologic mapping indicates that the general geology in the project area consists of "Surficial Sedimentary Deposits: **QS**- Alluvium, and terrace gravel, gravel deposits on pediment surfaces, and landslide and travertine deposits: till, glacial lake, and outwash deposits" and "Sedimentary Deposits and Rocks: **Ts**- Fan and gravel deposits on pediment conglomerate, sandstone, mudstone, and volcanic ash beds".

There are no known unique geologic or physical features at the site. NWE reported that in 2007, two bore holes were drilled to a depth of 20 feet below ground surface by SK Geotechnical at the facility location. Topsoil and the root zone were encountered at two to three inches below ground surface. Below the topsoil and root zone to the total depth, the soil profile was alluvium/glacial deposits consisting of poorly graded gravels with silt, sand, and cobbles. Groundwater was not observed in the bore holes. The subsurface soils are considered more than adequate to support the foundations for the simple cycle combustion units. The soil stability in the immediate vicinity would be impacted by construction activities, but disturbances would be temporary. The facility would not discharge any material to the soil. Installing connections of sewer, water, and natural gas pipelines to the site would result in minimal impact on geology and soil quality, stability and moisture because the construction would be temporary and of short duration.

The majority of construction required for the facility would be the turbine building, with building dimensions of approximately 100-feet wide, 315-feet long, and 30-feet high. Although the project will impact the soil stability it will only be temporary and of short duration. Overall, the Department believes there would be minor impacts to geology, soil quality, stability, and moisture.

D. Vegetation Cover, Quantity, and Quality

The proposed project would result in minor impacts on the vegetative cover, quantity, and quality in the immediate area because only a small amount of property would be disturbed and the resulting deposition from air emissions would be relatively small. Approximately 40 acres of land would be impacted by the construction and operation of the facility with an additional 10 acres already occupied by the Mill Creek electrical power substation. As stated above, the project site would be located within the South Uplands Unit of the Anaconda Smelter Superfund site. According to NWE, in 2007, the project site was graded and soils mixed to address arsenic-impacted soils.

The project site would be located in an industrial area where vegetation is sparse to none. In comparison to the surrounding area, the disturbance of this acreage would be very small. The vegetated areas outside of this proposed project include: small stands of cottonwoods and other deciduous species, grasslands with Great Basin wildrye and redtop, and scattered shrub lands with rabbitbrush (Chrysothamnus nauseosus), currant and Woods rose. See Section 8.D of this EA. In addition, as described in Section 7.F of this EA, the impacts from the air emission from this facility are minor.

There are no known endangered or threatened plant species at the project site. Installing connections of sewer, water, and natural gas pipelines to the site will result in minimal disturbance to the land and the disturbance will be temporary in areas not previously disturbed. Most of the newly disturbed areas would be restored to their previous status after installation of utilities. The corresponding deposition of the air pollutants on the surrounding vegetation would also be minor.

Any disturbances would be of short duration and the area would be returned to its current status. Therefore, the proposed project would result in minor impacts on the vegetative cover, quantity, and quality.

E. Aesthetics

Impacts to the aesthetics of the area from this project would be minor because the land use near the project area is primarily agricultural grazing, recreation and open space mixed with commercial/industrial areas for gravel mining and an electrical substation. There are large overhead power lines extending from the substation to near the proposed project area. According to the application, each of the four generating units have the following footprint: 120 feet wide, 120 feet long and 30 feet high. Emissions from each Swiftpac^{TM} would be emitted to the atmosphere through separate stacks measuring approximately 15 feet in diameter and 90 feet tall.

Other equipment that would be located on-site includes: two 1,000,000 gallon domed roof tanks for on-site storage of liquid fuels, two 10,000 gallon storage tanks used to store aqueous ammonia (19%) for the oxides of nitrogen (NOx) air pollution control device (selective catalytic reduction (SCR) system), raw and demineralized water storage tanks (near the water treatment building). In addition, a maintenance/control/office building would be located at the facility.

The facility would potentially be visible from various roadways in the area, such as: State Highway-1 located approximately 1 mile to the northeast, Mill Creek Road approximately 1/5 mile to the west, and Willow Glen Road approximately 1/5 mile to the southwest of the site. The community of Opportunity would be located approximately 1.5 miles east of the facility and a gravel pit is located approximately 0.25 miles to the northeast.

Water condensable plumes from the facility could be visible on very cold days of very high humidity which would be an unusual occurrence for this area. However, visible emissions from the facility would be limited to 20% opacity.

There would not be an increase in odors with the addition of this facility to the area because odors from the combustion of natural gas would be negligible and would only slightly perceptible, if at all. Odors from the combustion of ultra low sulfur fuel (#2) would be infrequent due to the limited use of this fuel (permit limited to less than 720 hours per year).

The facility would result in some additional noise even though the combustion turbine generating units are designed to meet industry standards for noise levels. Based on the specifications of the generating units, the following noise levels were estimated for the MCGS facility: 91 decibels (dBA) maximum at 3 feet away; 70 dBA maximum at 400 feet away; 65 dBA maximum at 0.25 miles; and 58 dBA at approximately 1.5 miles. The nearest resident would be located at approximately 1.5 miles from the facility. However, for comparison, street noise is estimated at approximately 70 dBA and normal conversation noise (3 feet away) is 60 dBA.

The area would also receive increased vehicle use as a result of the proposed project; however, the Department does not believe that the amount of vehicle trips in the area would increase substantially over the existing traffic patterns. The vehicles would use the existing roads in the area on route to the roads established as part of the facility. During construction of the facility, there might be a noticeable increase; however, it would be temporary. NWE proposes to hire 11 employees and a traffic increase would be minimal.

As previously noted, the proposed facility would be located in the area of the old Anaconda Company copper smelter operations and the nearby Opportunity disposal ponds, both of which are part of the Anaconda Superfund site. Impacts to the aesthetics of the area from the project would be minor because of these other industrial and commercial structures located nearby, and the relatively low visibility and minimal noise from the facility. Odor from the turbines would be negligible when using natural gas and minimal when using fuel oil, visible emissions would be limited to less than 20% opacity. Therefore, the Department believes that aesthetics in the area would only experience minor impacts.

F. Air Quality

The air quality classification of the immediate area is "Unclassifiable/Attainment" for all pollutants (40 CFR 81.327). The city of Butte and surrounding area is classified as nonattainment for PM_{10} upon based on 24-hour monitoring values. This PM_{10} nonattainment area (NAA) boundary is about 13 miles (21 kilometers) to the southeast of the MCGS. The closest federally mandatory Class I area is the Anaconda-Pintler Wilderness Area, which is about 16 miles (26 km) southwest of the facility.

Modeling concluded that the Class I Anaconda-Pintler Wilderness Area would not be significantly impacted by MCGS's NOx and PM_{10} emissions. The annual NOx and PM_{10} MCGS emissions were about 1% of their respective modeling significance levels whereas the 24-hour PM10 emissions were about 50%. In addition, the modeling results for MCGS NWE's natural gas-fired power plant project demonstrated compliance with the NAAQS/MAAQS and PSD increments. Modeling results are included in the permit analysis.

In addition to the modeling analyses, a BACT analysis was performed as part of the permit action. NWE proposed to install wet injection and SCR and a catalytic oxidizer to substantially reduce NO_x, CO and VOCs respectively. The results of the BACT analysis were factored into the modeling analysis.

NWE would also emit Hazardous Air Pollutants (HAPs). A major facility for HAPs is defined as a stationary source that has the potential to emit more than 10 tons per year of any individual HAP or 25 tpy of all HAPs combined. This facility is not considered major for HAPs and the highest individual emission rate of an individual HAP would be approximately 6.19 tpy, and the combined emission rate of all HAPs would be about 9.51 tpy. Not only is this source not considered a major source for HAPs, but any impact from HAPs would be minor because the emissions of the HAPs would be dispersed by the wind speed, wind direction, atmospheric stability, stack temperature, and other dispersion parameters in the area.

NWE would emit carbon dioxide (CO_2), which is not a regulated pollutant under either the Federal or Montana Clean Air Acts. Any impact from CO_2 would also be minor-when compared to the CO_2 emissions from other industrial sources in the state and other natural sources of CO_2. Power in Montana is generally created using either one of two fuels—natural gas or coal. Coal-fired power plants generate 1.8 times more CO_2 than a similar sized natural gas fired power plant. The estimated CO_2 emissions from this facility would be 188,000 tons per year, but again, CO_2 is not a regulated pollutant. NWE would be required by the PSC to address CO_2 under House Bill 25 (HB25).

In general the PSC is required to address carbon offsets in their approval process. Section 69-8-421(e) of the Montana Code Annotated (MCA) states: "*When issuing an order for the acquisition of an equity interest or lease in a facility or equipment that was constructed after January 1, 2007, and that is used to generate electricity that is primarily fueled by natural or synthetic gas, the commission shall require the applicant to implement cost-effective carbon offsets. Expenditures required for cost-effective carbon offsets pursuant to this Subsection (6)(E) are fully recoverable in rates." In Section 69-8-103, the MCA, defines "Cost-Effective Carbon Offsets" as a combination of certified actions that are taken to reduce carbon dioxide emissions or that increase the absorption of carbon dioxide, and which collectively do not increase the cost of electricity produced annually on a per-megawatt-hour basis by more than 2.5%, including: actions undertaken by the applicant that reduce carbon dioxide emissions or that increase the absorption of carbon dioxide from a facility or equipment used to generate electricity; or actions by a carbon offset provider on behalf of the applicant. Examples of certified actions to reduce carbon dioxide or to increase the absorption of carbon dioxide include installing emission control/capture equipment, planting trees, engaging in electricity conservation activities, or making payments to "certified" offset providers.* As stated in the MCA, the cost-effective carbon offsets would be included in the charged rates to electricity consumers and become an ongoing expense of operating the facility. In order for the PSC to issue an order for the acquisition of equity interest, NWE is currently developing a cost-effective carbon offset implementation plan to submit to the PSC.

Upgrading the utilities for NWE would result in very little air quality impact because no major air emission activities would be required. The sewer and water system upgrade may require the use of motor vehicles, but the impacts would be minor and of a short time duration. Similarly, minor fugitive dust emissions would result from the sewer and water system upgrade as well, but the emissions would be temporary.

The modeling results for NWE's simple cycle, dual fuel fired generating units have demonstrated compliance with the NAAQS/MAAQS and PSD increments. Overall, the air impacts from NWE are expected to be minor.

G. Unique, Endangered, Fragile, or Limited Environmental Resources

To identify any species of special concern in the immediate area of the proposed project, the Department contacted the Montana Natural Heritage Program of the Natural Resource Information System (NRIS). The Natural Heritage Program identified one endangered species of special concern in the area of the proposed facility. The species identified is the gray wolf.

In the mid-to-late 1980s, in an effort to restore wolf populations, the wolf was reintroduced into three recovery areas – Northwestern Montana, Central Idaho, and the Greater Yellowstone. Wolf populations have increased throughout the last several decades, however, generally, the wolves usually occupy areas with few roads and little human disturbance so it is unlikely that wolves would be impacted by this project. By incorporating the project into an area that is currently occupied by a gravel pit and an electrical substation, there would be little additional impact to the wolf population.

Based on the modeled air quality impacts from NWE, the proposal would have minor, if any impacts on the unique, endangered, fragile, or limited environmental resources in the area. The proposed project would have minor impacts on limited, non-renewable resources because the amount of natural gas consumed by the facility would be relatively small in comparison to the natural gas consumption in Montana and the nation. See Section 7.H of this EA for additional information. The Department believes there would be minor impacts to any unique, endangered, fragile, or limited environmental resources in the area.

H. Demands on Environmental Resource of Water, Air, and Energy

As described in Section 7.B of this EA, impacts to the water resource would be minor. The facility will not directly discharge any material to the surface or ground water in the area other than a minor amount of stormwater runoff.

All applicable Department permits would be in place prior to facility construction in order to minimize impacts to Mill Creek. Wastewater from the facility would be treated on-site prior to discharging to the City of Anaconda sewer system. NWE has estimated that the maximum amount of wastewater discharged from the facility would be approximately 40,000 gpd. The City of Anaconda currently treats less than 1.0 million gpd of wastewater and according to NWE the plant's maximum capacity is 5.2 million gpd. Any additional wastewater from the MCGS facility would represent only a small portion of the average daily throughput for the City of Anaconda.

Process water for the facility is estimated at approximately 250,000 gallons per day and would be obtained from the Silver Lake pipeline. The primary use of this water would be used to control oxides of nitrogen (NOx) with wet injection coupled with an SCR for each generating unit. As proposed, MCGS operations would have no impact on the water supply for the City of Anaconda because NWE proposes to have potable water delivered by a bottled water company to the facility.

As described in Section 7.F of this EA, the impact on the air resource in the area of the facility would be minor. Ambient air modeling for NO_X, CO, VOC, PM, PM_{10}, and SO_2 was conducted for the facility at "worst case" conditions that demonstrates that the emissions from the proposed facility would not exceed any ambient air quality standard.

The impacts to the energy resource from this facility would be minor. The facility would consume approximately 3500 MMscf/year of natural gas. In comparison to the natural gas consumed nationally and many other facilities in the area, this is minor. Because this project serves as a regulating resource to stabilize the transmission grid due to non-dispatchable and unpredictable fluctuations from intermittent renewable resources, such as wind power the Department believes the impacts to energy would be minor.

Impacts to the water quality and quantity would be minimal due to the fact that no potable water other than bottled water would be available on-site; Anaconda has more than enough capacity in their wastewater system to handle NWEs wastewater; process water would be available from Silver Lake; due to dispersion air quality would be minimal; and energy use would be minimized with the use of Pratt & Whitney's Swiftpac generating units. Therefore, the Department believes the project would result in minor impacts to demands on environmental resources of water, air, and energy.

I. Historical and Archaeological Sites

The Department contacted the Montana Historical Society – State Historic Preservation Office (SHPO) in an effort to identify any historical, archaeological, or paleontological sites or findings near the proposed project. SHPO's records indicate that there are currently no previously recorded cultural properties within the project site. Because of the fact that the site has been previously disturbed, the likelihood of finding undiscovered or unrecorded historical properties is practically nil.

Impacts on historical and archaeological sites would be minor because the site location contained no visible standing structures, the facility would physically impact a small amount of property (approximately 50 acres), the facility would locate within an area that has been

previously disturbed and designated as Superfund. The old Anaconda Copper Company smelter stack, located approximately two miles west of the site, is listed in the National Register of Historic Places.

Therefore the Department believes that there is a minor likelihood that cultural properties would be impacted. However, should cultural materials be inadvertently discovered during this project SHPO requested that they be contacted to investigate the site.

J. Cumulative and Secondary Impacts

Overall, the cumulative and secondary impacts from this project on the physical and biological aspects of the human environment would be minor because the impact from MCGS would be relatively minor. The proposed facility would locate in close proximity to power lines and a natural gas distribution pipeline. Because the connections to electrical lines and building of gas and water pipelines create minimal disturbance to the environment and the disturbances would be temporary, the overall impact would be minor.

Based on modeling, using the "worst case" potential air emissions and other emission sources (i.e., MSE, MR, ASiMI, and CES, etc), the NAAQS/MAAQS for PM, PM_{10}, $PM_{2.5}$ NOx, and CO would not be violated for this project. In addition, the Class I and Class II area modeling analysis indicated that the PSD increments would not be exceeded for NOx or PM_{10}. The NOx and PM_{10} Class I PSD Increment modeling analysis was conducted for the nearest Class I area, the Anaconda Pintler Wilderness Area. Finally, because the proposed facility would not be located in the PM_{10} nonattainment area and NWE has shown compliance with the NAAQS, the facility would have minor impacts to the surroundings. The PM_{10} modeling results showed that emissions from the addition of the MCGS facility (along with the other local sources) would comply with annual and 24-hour PM_{10} NAAQS/MAAQS. Therefore, the Department believes that impacts to Air Quality would be minor.

8. *The following table summarizes the potential social and economic effects of the proposed project on the human environment. The "no action" alternative was discussed previously.*

Potential Social and Economic Effects							
		Major	Moderate	Minor	None	Unknown	Comments Included
A.	Social Structures and Mores				X		yes
B.	Cultural Uniqueness and Diversity				X		yes
C.	Local and State Tax Base and Tax Revenue			X			yes
D.	Agricultural or Industrial Production			X			yes
E.	Human Health			X			yes
F.	Access to and Quality of Recreational and Wilderness Activities			X			yes
G.	Quantity and Distribution of Employment			X			yes
H.	Distribution of Population				X		yes
I.	Demands for Government Services			X			yes
J.	Industrial and Commercial Activity			X			yes
K.	Locally Adopted Environmental Plans and Goals				X		yes
L.	Cumulative and Secondary Impacts			X			yes

SUMMARY OF COMMENTS ON POTENTIAL SOCIAL AND ECONOMIC EFFECTS: The following comments have been prepared by the Department.

A. Social Structures and Mores
B. Cultural Uniqueness and Diversity

The proposed facility would not cause a disruption to any native or traditional lifestyles or communities (social structures or mores, or cultural uniqueness and diversity) in the area because the land use proposal would not be out of place given the industrial land use of the surrounding area. The area is currently occupied by an existing electrical substation and MCGS would co-locate with the substation on the facility property. In addition to these industrial land uses, there is an existing gravel pit located north of this facility. The connections of natural gas, water and sewer pipelines, will not impact social structures or mores because these activities are consistent with activities performed throughout Montana and will be temporary.

C. Local and State Tax Base and Tax Revenue

The facility would have a minor effect on the local and state tax base and tax revenue because the project would result in generating approximately $1.6 million per year in state and local taxes. At the current tax levies in Anaconda-Deer Lodge County, the plant will pay approximately $8.0 million per year. It is estimated that NWE will employ approximately 75 people during the construction phase and, as many as, 11 people during the operation of the facility. Therefore, the Department believes this project would have minor, but positive effects to the local and state tax base and tax revenue

D. Agricultural or Industrial Production

The impacts to agricultural and industrial production in the area from this facility would be minor because the facility would impact such a small amount of land, the impact from the air emissions on the land would be small, and the amount of electricity produced to assist other industrial activities within the state is relatively small. The facility would be located on 50 privately owned by NWE, 10 acres are currently occupied by the Mill Cree electrical substation. The facility would not remove any existing land from agricultural production and would add to other industrial uses in the area.

As described in Section 7.F of the EA, the air quality impacts from this facility are minor, and the resulting deposition of the pollutants from the NWE project is consequently also minor. In addition, as described in Section 7.F, the fact that the facility would comply with the NAAQS (protect public health and promote public welfare) indicates that the impacts from the facility would be minor. Therefore, the Department has determined that the impacts to Agricultural or Industrial Production would be minor.

E. Human Health

As described in Section 7.F of the EA, the impacts from this facility on human health would be minor because the impact from the air emissions would be greatly dispersed before reaching an elevation where humans were exposed. Also, as described in Section 7.F, the modeled impacts from this facility, taking into account other dispersion characteristics (wind speed, wind direction, atmospheric stability, stack height, stack temperature, etc.), are well below the MAAQS, NAAQS, and PSD Increments. The air quality permit for this facility incorporates conditions to ensure that the facility would be operated in compliance with all applicable rules and standards. These rules and standards are designed to be protective of human health.

In addition, the facility has proposed to use SCR coupled with wet injection and catalytic oxidation to reduce emissions. NWE plans to use clean fuels (majority of the fuels used would be pipeline quality natural gas).

Besides the criteria pollutants, the impacts from HAPs would also be minimized by the dispersion characteristics of the facility and the area (wind speed, wind direction, atmospheric stability, stack temperature, facility emissions, etc.). Impacts from other common activities (such as fueling your vehicle for example) would have a greater impact on human health for HAPs because of the concentrations at the point of exposure.

Given these reasons and the fact that the nearest neighbor is approximately 1.5 miles away, the Department believes that the impact to human health would be minor.

F. Access to and Quality of Recreational and Wilderness Activities

Because of the location and the relatively small size of the facility, the proposed facility would result in small or no impacts on the access to and quality of recreational wilderness activities. The air emissions from the facility would disperse before impacting any recreational areas.

Recreational opportunities in the vicinity of the project area include the Copper King Express Excursion train which runs next to the site, the Anaconda Railroad and Mining Museum (approximately 3.5 miles), the Anaconda Smoke Stack State Park (approximately 2 miles), and Old Works Golf Course (approximately 3 miles). Besides the Anaconda Smoke Stack State Park, other state parks in the area include Granite Ghost Town State Park located approximately 25 miles northwest of the facility and Lost Creek State Park located approximately 10 miles northwest of the facility. The recreational activities in the area are approximately 1½ to 2 miles away, and most of the nearby recreational activities are upwind of the predominant wind pattern.

The closest Federal Class I Area would be the Anaconda-Pintler Wilderness located approximately 15 miles southwest of the facility. The closest non-Class I wildlife management area would be the Mount Haggin Wilderness Management Area located approximately 10 miles southwest of the facility. The Warm Springs Wildlife Management Area would also be located approximately six miles north of the facility. Fishing accesses near the facility would be located on the Big Hole River and Georgetown Lake approximately 20 miles from the facility.

No significant recreational or wilderness activities exist within the NWE property boundaries and all recreational activities would remain available. Based on the modeling analysis (see Section 7.F of the EA) and the distance between and direction from the recreational sites and the NWE facility, there would not be any noticeable impacts. This project would not cause denial of access and would not impact wilderness activities, therefore, the Department determined that this facility would have minor impact to recreational and wilderness activities.

G. Quantity and Distribution of Employment

There would be a minor effect on the employment of the area from this project because it would result in approximately 75 construction-related employment opportunities and 11 full-time positions. As such, any effects would be minor but positive in the area.

When feasible and economical, NWE plans on using local contractors and workers for construction and operation. The feasibility would be dependent on availability and qualifications. Therefore, the Department determined that NWE would not negatively impact the quantity and distribution of employment in the area and would have minor impacts, if any.

H. Distribution of Population

The entire project would not affect the normal population distribution in the area because excluding 11 jobs that would result from the facility's operation, the remainder of the jobs created from this project would be temporary. Neither the 11 positions created as a result of facility, nor the numerous temporary construction-related positions would likely affect the distribution of population in the area. Therefore, the Department believes that the distribution of population would not be affected.

I. Demands of Government Services

Demands on government services from this facility would be minor because the facility would pay relatively high taxes and require fewer than average government services once all the necessary permits are received. There may be a minor increase in traffic on existing roads in the area while the facility is under construction, but for the normal operation of the facility traffic increases would be minimal. NWE has been working with all affected local and state agencies in advance to alleviate any additional demands on Government Services. As previously discussed in this EA, process water for MCGS will be obtained from the Silver Lake pipeline and wastewater will be discharged to the Anaconda wastewater system.

Generally speaking, the acquisition of the appropriate permits by the facility, the permits for the associated activities of the project, and compliance verification with those permits would also require minor services from the government. Therefore, the Department believes the demands on Government Services would be minor.

J. Industrial and Commercial Activity

The area both currently and historically has been primarily an industrial area. MCGS would have minor additional impacts to the surrounding area. Although, the NWE facility would cause a minor increase in industrial activity in the area because the facility would operate 24 hours a day and 7 days per week. Given the fact that the area is predominantly industrial, the Department believes that effects to industrial and commercial activity would be minor.

K. Locally Adopted Environmental Plans and Goals

The air quality classification for the immediate area is "Unclassifiable or Better Than National Standards" (40 CFR 81.327) for all pollutants. The city of Butte and surrounding area are classified as non-attainment for PM_{10} with the closest boundary approximately 13 miles to the east of the facility. The closest PSD Class I area would be the Anaconda-Pintler Wilderness located approximately 15 miles southwest of the facility.

The project would be located within the Anaconda Regional Water, Waste, and Soils Operable Unit, RDU 6 - South Uplands Unit of the Anaconda Smelter National Priorities List (NPL) Site (Anaconda Superfund site). RDU 6 covers approximately 300 square miles in the southern Deer Lodge Valley and surrounding foothills.

The proposed facility would locate outside of the nonattainment area and would result in only minor impacts because the PM emissions from the facility have been modeled to demonstrate that the facility would not have a significant impact on the adjacent PM_{10} nonattainment area. The modeling inputs were based on the "worst case" PM emissions from the facility.

The Department is unaware of any other locally adopted environmental plans and goals that would be affected by the facility, or the other portions of the project, as identified at the beginning of this EA. In addition, NWE has been proactive with local and state agencies to minimize impacts. Therefore the Department believes there would be minor impacts to locally adopted environmental plans and goals.

L. Cumulative and Secondary Impacts

Overall, the cumulative and secondary impacts from this project on the social and economic aspects of the human environment would be minor because some new full-time employment opportunities may result, temporary construction related employment opportunities would be available, state and local taxes would be generated, and the facility could sell power to other residents and industries in Montana. Overall, the NWE project would result in additional jobs for the area. As described in Section 8.G of this EA, the facility would employ approximately 11 full-time people and approximately 75 people during the peak construction phase. The possible "day-to-day" normal operation positions and the construction-related positions created by MCGS would bring additional revenue into the economy.

Recommendation: An Environmental Impact Statement (EIS) is not required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: All potential effects resulting from construction and operation of the proposed facility are minor, therefore, an EIS is not required. In addition, the source would be applying the Best Available Control Technology and the analysis indicates compliance with all applicable air quality rules and regulations.

Other groups or agencies contacted or which may have overlapping jurisdiction: Department of Environmental Quality – Permitting and Compliance Division (Air Resources Management Bureau); Public Service Commission (PSC), Montana Natural Heritage Program; and State Historic Preservation Office (Montana Historical Society). In addition, NWE hosted a public meeting at the Anaconda High School on October 14, 2008 where few negative comments resulted—most were proponents of the project.

Individuals or groups contributing to this EA: Department of Environmental Quality (Air Resources Management Bureau and Water Quality Bureau) Montana Natural Heritage Program, State Historic Preservation Office (Montana Historical Society), Shaw, Stone and Webster and Bison Engineering.

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Date: 12/15/08