



Department of Health and Environmental Sciences

STATE OF MONTANA HELENA, MONTANA 59601

ENVIRONMENTAL SCIENCES DIVISION
Board of Health Building
(406) 449-3946

XXXXXXXXXXXX
XXXXXXXXXXXX
XXXXXXXXXXXX

A.C. Knight, M.D.
Director

SECRET



Honorable Thomas Judge, Governor, State of Montana, Helena, MT, 59601
Honorable Ted Schwinden, Lieutenant Governor, State of Montana, Helena, MT, 59601
Montana State Library, Helena, MT, 59601
Environmental Quality Council, Helena, MT, 59601
Department of Community Affairs, Helena, MT, 59601
C.R. Draper, Administrator, Research & Information Systems Division, Department
of Community Affairs, Helena, MT, 59601
Department of Fish & Game, Helena, MT, 59601
Jim Posewitz, Administrator, Ecological Services Division, Department of Fish &
Game, Helena, MT, 59601
Richard Mayer, Chief, Design & Development Bureau, Parks Division, Department
of Fish & Game, Helena, MT, 59601
Department of Highways, Helena, MT, 59601
Stephen C. Kologi, P.E., Chief, Preconstruction Bureau, Department of Highways,
Helena, MT, 59601
Department of Natural Resources & Conservation, Helena, MT, 59601
Robert Anderson, Administrator, Energy Planning Division, Department of Natural
Resources and Conservation, Helena, MT, 59601
Larry Thompson, Department of Natural Resources & Conservation, Helena, MT, 59601
Bill Christiansen, Coordinator, Energy Research & Conservation Office, Helena,
MT, 59601
Public Service Commission, Department of Public Service Regulation, 1227
11th Ave., Helena, MT, 59601
Bureau of Indian Affairs, 316 N. 26th St., Billings, MT, 59101
Edwin Zaidlicz, Area Director, Bureau of Land Management, 316 N. 26th St., Billings,
MT, 59101
Bureau of Reclamation, Box 2553, Billings, MT, 59103
Bonneville Power Administration, Box 3621, Portland, OR, 97208
U.S. Forest Service, Region 1, Federal Building, Missoula, MT, 59801
Custer National Forest, Box 2556, Billings, MT, 59103
Federal Energy Administration, 1075 S. Yukon, Box 26247 - Belmar Branch, Lakewood,
CO, 80226
Alan Merson, Administrator, Environmental Protection Agency, Region VIII, Suite 900,
1860 Lincoln St., Denver, CO, 80203
CAB Baldwin, Environmental Protection Agency, 1860 Lincoln St., Denver, CO, 80203
Honorable Lee Metcalf, United States Senate, Washington, D.C., 20510
Honorable John Melcher, United States Senate, Washington, D.C., 20510
Honorable Max Baucus, House of Representatives, 1641 Longworth Building,
Washington, D.C., 20515
Honorable Ron Marlenee, House of Representatives, 1641 Longworth Building,
Washington, D.C., 20515
Rosebud County Commissioners, Courthouse, Forsyth, MT, 59327
Rosebud County Attorney, Courthouse, Forsyth, MT, 59327
Rosebud County Sanitarian, Mark Stevens, Courthouse, Box 1056, Forsyth, MT, 59327
Rosebud County Public Library, 201 N. 9th Ave., Forsyth, MT, 59327
Forsyth City Council, Forsyth, MT, 59327

Northern Cheyenne Tribal Council, Northern Cheyenne Agency, Lama Deer, MT 59047
Crow Tribal Council, Crow Agency, MT 59022
John Bartlett, 2214 Winne, Helena, MT 59601
Rita Sheehy, 1041 Poly Drive, Billings, MT 59102
Charles Shield, 1755 W. Central Ave., Missoula, MT 59801
Dr. John Newman, Box 3493, Butte, MT 59701
Dr. John McGregor, Room 31, Great Falls National Bank Bldg., Great Falls, MT 59401
Leonard Eckel, 1727 11th Ave., Helena, MT 59601
William Spoja, Jr., Box 882, Lewistown, MT 59457
Charles L. Hash, 136 1st Ave. W., Kalispell, MT 59901
Dr. Roy Huffman, 2609 Highland Boulevard, Bozeman, MT 59715
Dr. Wilson F. Clark, Alkali Creek Rd., Billings, MT 59101
Cecil Weeding, Box 78, Jordan, MT 59337
David G. Drum, Box 2091, Billings, MT 59103
J. Viola Herak, Charlo, MT 59824
William H. Bertsche, Box 1459, Great Falls, MT 59401
Montana Power Co., 40 E. Broadway, Butte, MT 59701
Pacific Power & Light Co., Public Service Bldg., Portland, OR 97204
Portland General Electric, 121 SW Salmon St., Portland, OR 97204
Puget Sound Power & Light Co., Puget Power Bldg., 10608 NE 4th, Bellevue, WA 98009
Washington Water Power Co., Box 3727, 411 E. Mission Ave., Spokane, WA 99220
Senator Dave Manning, Hysham, MT 59038
Representative E.N. Dassinger, 1490 Oak, Forsyth, MT 59327
Lynn Brant, 605 E. Fairmont, State College, PA 16801
Dale Sahy, North Dakota State, Department of Soil Science, Fargo, ND 58102
Lee Werth, College of Forestry, 1530 Cleveland Ave., 110 Green Hall, University
of Montana, Missoula, MT 59801
Forsyth Independent, 183 North 9th Avenue, Forsyth, MT 59327
Don Dailey, Route #1, Forsyth, MT 59327
Nick Golder, Route #1, Forsyth, MT 59327
Bill Gillin, Pres., Rosebud Protective Association, Route #2, Forsyth, MT 59327
Northern Cheyenne Research Project, Attn: Dick Monteau, Lama Deer, MT 59043
Dr. C. C. Gordon, Department of Botany, University of Montana, Missoula, MT 59801
Dr. Ray Gold, Institute for Social Research, University of Montana, Missoula, MT
Dr. Patrick Jobs, Colter Hall 114, Dept. of Sociology, Montana State University,
Bozeman, MT 59715
Donald Patterson, Hamilton Hall 215, Center for Interdisciplinary Study, Montana
State University, Bozeman, MT 59715
Montana Chamber of Commerce, Box 1730, Helena, MT 59601
Montana Railroad Association, 7 Edwards, Helena, MT 59601
Western Environmental Trade Association, Room 307, Northwestern Bank Building,
Helena, MT 59601
Western Montana Mining Association, 625 Continental Way, Missoula, MT 59801
Defenders of Wildlife, 947 Rimini Court, Missoula, MT 59801
Farm Bureau, Box 1207, Bozeman, MT 59715
Montana AFL-CIO, Box 1176, Helena, MT 59601
Montana Farmers Union, Box 2447, Great Falls, MT 59403
Montana Stockgrowers Association, Box 1697, First National Bank Building,
Helena, MT 59601
Montana Wool Growers Association, Box 1693, Helena, MT 59601
Yellowstone Basin Water Users Association, 1510 E. Ames, Glendive, MT 59330
Burlington Northern, 709 Midland Bank Building, Billings, MT 59101
Leo Graybill, Jr., 400 First National Bank Building, Great Falls, MT 59401
Mike Meloy, Securities Building, Helena, MT 59601
Bill Leaphart, 1 North Last Chance Gulch, Suite #6, Helena, MT 59601

John L. Peterson, 27 W. Broadway, Butte, MT 59701
Dr. Arnold Silverman, Department of Geology, University of Montana, Missoula, MT
Montana Bureau of Mines and Geology, c/o Montana Tech, W. Park Street, Butte, MT
Center for Public Interest, Box 931, Bozeman, MT 59601
Ducks Unlimited, Attn: Patrick McDonough, Box 327, Billings, MT 59101
Environmental Information Center, Box 12, Helena, MT 59601
Friends of the Earth, Attn: Ed Dobson, Box 882, Billings, MT 59103
Montana Wilderness Association, Attn: Thomas E. Horobik, 4000 Fourth Avenue North,
Great Falls, MT 59401
Northern Rockies Action Group, 9 Placer, Helena, MT 59601
Sierra Club, Attn: Joe Angell, General Delivery, Helena, MT 59601
Student Environmental Research Center, Venture Center, University of Montana,
Missoula, MT 59801
Trout Unlimited, Attn: Jim Handley, Box 140, Manhattan, MT 59741
Wilderness Society, Attn: Phil Tawney, Box 12, Helena, MT 59601
Resources Education Foundation Inc., Box 1148, Helena, MT 59601
Jim Goetz, 15 S. Tracy Ave., Bozeman, MT 59715
Dee Taylor, Department of Anthropology, University of Montana, Missoula, MT 59801
Tribune Capitol Bureau, 515 N. Sanders, Helena, MT 59601
Lee State Bureau, Box 557, Helena, MT 59601
Associated Press, 317 Allen, Helena, MT 59601
United Press International, 2021 11th Ave., Helena, MT 59601
Montana Wildlife Federation, Box 4373, Missoula, MT 59806
Gough, Booth, Shanahan and Johnson, 301 1st Nat'l Bank Bldg., Helena, MT 59601
Montana Coal Council, 2301 Colonial Dr., Helena, MT 59601
Northern Plains Resource Council, 419 Stapleton Bldg., Billings, MT 59601

Reviewer:

This document contains the public comments generated by the Department of Health and Environmental Sciences' environmental impact statement addendum for a construction permit for Colstrip Units 3 & 4. In addition to answering the comments, the Department recommends that a final impact statement not be written and presents a proposed final recommendation for conditional approval of the permit.

Sincerely,



Mike Roach, Chief
Air Quality Bureau

MONTANA DEPARTMENT OF HEALTH
AND
ENVIRONMENTAL SCIENCES

ENVIRONMENTAL IMPACT STATEMENT ADDENDUM

Colstrip Electrical Generating Units 3 & 4

I. INTRODUCTION

The Montana Power Company (MPC), Puget Sound Power & Light Company, Portland General Electric Company, Washington Water Power Company and Pacific Power and Light Company, pursuant to the Board of Health and Environmental Sciences (BHES) Certificate Condition No. 3 and the Department of Health and Environmental Sciences (DHES) July 19, 1977, Order to Take Corrective Action, filed an application August 17, 1977, for an operating permit (Appendix A) and an application for a construction permit for the proposed electrical generating units 3 & 4 (Colstrip Units 3 & 4) to be built near Colstrip in Section 34, Township 2 North, Range 41 East, Rosebud County, Montana.

The DHES is responsible for preventing, abating and controlling air pollution in Montana. A construction permit is required by the Administrative Rules of Montana (ARM) 16-2.14(1)-S1400(1), which pertains to permits, construction and operation of equipment. The rule was adopted pursuant to the Clean Air Act of Montana, R.C.M. 1947, S69-3911.

II. EIS ADDENDUM REVIEW

The DHES presented its review of the consortium's request for a construction permit in an addendum to the Department of Natural Resources and Conservation's environmental impact statement (EIS). The document was published and circulated for public review October 25, 1977.

The addendum concluded that the DHES had three possible courses of action:

1. Deny the permit if the consortium:
 - A. Violates the BHES' conditions for conditional certification.
 - B. Fails to meet state and federal air quality standards for which the State has been delegated responsibility.
2. Unconditionally approve the permit.
3. Conditionally approve the permit with the provision that additional conditions may be imposed upon completion of the evaluation and receipt of recommendations from the review of the addendum. Conditions for approval would require:

Condition A - Ambient air sulfur dioxide (SO₂) concentration of 0.25 ppm for a 1-hour average and 0.10 ppm for a 24-hour average shall be met, in addition to all other applicable ambient standards.

Condition B - Emission offsets shall be greater than 2537.6 tons/year (T/yr) and the offset emission reductions shall be specified and achieved before Units 3 & 4 commence operation.

Condition C - To further clarify and resolve BHES Condition No. 1 the consortium will conduct a pyrite sulfur study on Colstrip Units 1 & 2. The study will begin on or before January 1, 1978, and run for no less than one year and no longer than two years. Details are to be worked out between the DHES and the utilities' representative, MPC.

Condition D - Limitations on particulate and SO₂ emissions so as to reflect BACT as demonstrated on Units 1 & 2. These limitations shall be met at all times during normal plant operation except as provided for under malfunction, start-up and shutdown conditions.

Condition E - A compliance plan for reducing those emissions associated with the crushing, storing and transporting of coal from the Western Energy mine to the power plant complex which demonstrate Lowest Achievable Emission Rates (LAER).

Condition F - MPC shall provide a detailed emission monitoring program for DHES approval one year before Units 3 & 4 commence operation. Procedures for certifying said monitors shall be as outlined in the October 6, 1975, Federal Register and subsequent amendments to those procedures.

After considering the information in the addendum and the three alternative actions, the DHES recommended alternative three, conditional approval of the construction permit for Colstrip Units 3 & 4.

COMMENTS ON DRAFT EIS ON PERMIT APPLICATION ON COLSTRIP UNITS 3 & 4.

BY DON BAILEY
FOURSYTH, MONTANA

III. LETTERS AND RESPONSES

It is very frustrating and discouraging to be writing comments on the departments EIS, and to hear on the news that the department has already made a preliminary decision and is meeting with the companies to negotiate the terms of the issuance of said permit. To me, this confirms the reports I have had that the Governor and his aids have been putting continuous pressure on the department to expedite the issuance of the permit. I am also aware that the Governor has had his lawyer, Mr. Long in Washington, D.C. and in Denver lobbying the EPA, to back off on their stand on the Colstrip issue.

The administration has been very secretive and coercive in its support of the Colstrip project. This is the same Governor who has told Montanans that he wants to protect Montana's environment and life-styles. The complete failure of the department to recognize citizens input from those who stand to be adversely affected by Units 3 & 4 smacks of serious bias and submission to tremendous political pressure.

I believe that the companies have failed to meet the conditions of the Boards of Health and Natural Resources conditional approvals of the project under the Utility Siting Act. The Boards and their departments have continuously made politically expedient decisions based on conditions that they either cannot or will not enforce. They are going to allow the construction of the plants by circumventing the law ~~the~~ then will be faced with having to let the plants operate in violation of standards because the economic impact on the region of shutting them down, would be too great. The departments are already in this position in that they are being intimidated by the economic growth and employment elements in the state.

BY DON BAILEY

DHES RESPONSE

Last spring, I attended a Board of Health meeting in Helena and brought to their attention problems with monitoring equipment and scrubber operation. These problems are still in existence and the department has failed to be firm and to act in the best interest of those that stand to be physically impacted by the emissions from Colstrip. Recognizing the obvious collaboration between the Administration, its agencies, and the companies in regard to this whole issue, my comments on the EIS follow.

Page 7: The statement that units 1 and 2 contribute very little to violations is irresponsible and unfounded. The department points out that the highest particulate concentrations were noted in 1974. Table A of the EIS points out that TSP emissions went down approximately 25% from 1974 levels in 1975. The EIS explicitly points this out because it serves the purpose of approving the permit. Why does the EIS not go ahead and point out that the TSP levels increased again in 1976 approximately 17% from 1975 levels and remained up through 1977? Could it be that this does not serve the purpose of approving a permit in an area that is already in violation of state and federal primary air quality standards?

In an effort to circumvent the requirements of the Clean Air Act, it appears the DHES says it will require MPC to implement an offset greater than 1 to 1 prior to the operation of Units 3&4. The federal offset regulations clearly require more than a fraction greater than 1 to 1 offset. Reasonable progress towards compliance should be shown, and I do not believe the program, as presented represents this.

The DHES states that the abatement equipment proposed for Colstrip 3 & 4 are adequate to achieve low particulate emission rates. Federal offset regulations require lowest emission rates possible. "In order

1. The DHES's data reaffirms the position that the impact of Units 1 & 2 on the MPC #3 ambient monitor is minimal. Modeling indicates the maximum projected contributions from Units 1-4 would be an average of 0.6 micrograms/cubic meter ($\mu\text{g}/\text{m}^3$) annually. Other sources, such as strip mining, construction activity and unpaved roads, account for the major impact of collected particulate on MPC monitor #3 (Colstrip EIS Addendum, Oct. 25, 1977, P. 3).

2. Moisture may have been responsible for the differences in readings from 1975 to 1976. According to DHES information, 1976 had three fewer inches of annual precipitation than 1975, which may have aggravated dust conditions at Colstrip.

3. An offset of 122 tons more than 1 to 1 is sufficient. The DHES will require additional abatement by all sources in the area to attain ambient standards.

4. The DHES is requiring LAER in accordance with the Environmental Protection Agency (EPA) Interpretative Rulings, Federal Register, Vol. 40, No. 246, December 21, 1976.

BY DON BAILEY

for a new source to locate in an area which already exceeds National Ambient Air Quality Standards, it must meet stringent emission limitations. The DHES should be aware that the EPA is going to demand that the units meet the requirements of the amendments to the Clean Air Act of 1977. Consequently, it is their contention that that the facilities should achieve 90% SO₂ removal. The companies are telling the EPA and the State that they can meet these requirements with existing equipment. However, at the recent hearings on the sale of Revenue Bonds for pollution abatement equipment, the companies told the Rosebud County Commissioners that it would require an additional 80 million dollars worth of equipment to achieve 85% SO₂ removal. These kind of inconsistencies in their arguments have appeared through out the controversy. It appears that they are providing the regulatory bodies with the weak rationales to make the decisions the companies desire. They know that if they ever get the plants under construction and in operation, they will have a strong upper hand in dealing with anyone who has to enforce emission standards. The DHES has seemed ready to accept all of the weak-kneed excuses the companies have presented to explain away the many, many violations that have occurred with the operation of Units 1 & 2. After I raised the question of the problems with the monitoring equipment with the BHES, the department implemented a program to remedy the situation. The companies have not complied with these programs and the problems still exist.

Probably the most glaring fault with the whole EIS is that throughout the EIS it is constantly pointed out that there may be violations and difficulties, but in conclusion the DHES determines that they will probably issue a conditional permit. Is this a responsible position for an enforcement agency to take?

DHES RESPONSE

5. The 90% SO₂ removal question must be answered by EPA since it refers to Prevention of Significant Deterioration (PSD). The DHES believes the consortium's position is not to violate the Class I increment of PSD on the Northern Cheyenne Reservation using the proposed equipment. The EPA, not the state, has the authority to implement and enforce the provisions of PSD. Reference response #35.

Reference response # 36 and 37.

6. The emission monitoring problems and a program for their resolution were presented to the BHES on June 27, 1977. A monitoring program has not been decided upon by the consortium, but Condition F of the conditional approval (Colstrip EIS Addendum, October 25, 1977, IX. Possible Courses of Action, P. 11) does address this problem. There is a possibility that a different type (extractive) rather than nonextractive will be used.

Certification of existing monitoring equipment has not been completed. Problems with equipment on Units 1 & 2 have been sufficient to mitigate additional enforcement by DHES. A condition of any permit issued for Units 3 & 4 will require that the monitoring equipment be certified in accordance with NSPS or the units will not be allowed to operate.

7. The difficulties that exist with the monitoring systems of Units 1 & 2 are not sufficient to deny the permit; rather they provide the basis for conditions in the permit to prevent the same occurrences in Units 3 & 4.

BY DON BAILEY

DHES RESPONSE

There are many other pertinent problems with the EIS, but I am aware that they are being presented by others. In conclusion, I would only point out that the Colstrip Project probably has had as much background research done on it as any similar development in the country. Our base-line data is excellent. I can assure you that when damage begins to occur to the plants and animals in the proximity of Colstrip, and possible threats to human health become factual, the land-owners in the area are prepared to seek legal relief. If the State of Montana has in any way been negligent in their administration and enforcement of the laws, they will be named as defendants, along with anyone else who may be responsible. You still have an opportunity to enforce the law to the letter. Anything less than that is totally irresponsible.

By the way Mike Roach, I wonder what the reaction would be from state government and the companies, if the headlines in the Billings Gazette last week would have read that the DHES had preliminarily determined that they were going to deny the construction permit for Colstrip Units 3 & 4, and that the DHES was meeting with the Northern Cheyennes and the NPRC to negotiate the terms of that denial? This is exactly the position we have found ourselves in, only in reverse. I am sure if this situation had developed, all hell would break loose in Meleha and Butte and ~~there~~ might even be some heads roll.

Thank you for this opportunity to chew you out, but I am dead serious.

DON BAILEY
FORSYTH, MONTANA

8. The DHES recommended conditional approval of the construction permit for Colstrip 3 & 4 in the Colstrip EIS addendum October 25, 1977. The consortium requested the opportunity to submit additional information which is the right of all parties.

Rosebud Protective Association

Forsyth, Montana 59327

November 23, 1977

DHES RESPONSE

Air Quality Bureau
Environmental Sciences Division
Department of Health and Environmental Sciences
Cogswell Building
Helena, Montana 59601

Dear Sirs:

Representing the Rosebud Protective Association, I have several comments on the Addendum to the Environmental Impact Statement on Colstrip Units 3 and 4.

Because the federal "offset policy" applies to Units 3 and 4, we feel that the Department has a duty to require the lowest achievable emission rate of particulates from both the mining operations and the plants. This means that 1) all of Western Energy Company's coal handling facilities must be covered to reduce dust pollution and 2) precipitators be installed on Units 3 and 4 in addition to the scrubbers to ensure that the lowest particulate emissions possible result. As the December 21, 1976, Interpretative Ruling states, "...The ruling provides that a major new source seeking to locate in an area violating a NAAQS must meet an emission limitation which reflects the "lowest achievable emission rate" for such type of source. At a minimum, the lowest rate achieved in practice would have to be specified unless the applicant can demonstrate that it cannot achieve such a rate. In no event could the rate exceed any applicable new source performance standard (NSPS) set under section 111 of the Act.

"This stringent requirement reflects EPA's judgement that a new source should be allowed to emit pollutants into an area violating a NAAQS only if its contribution to the violation is reduced to the greatest degree possible. While cost of achievement may be an important factor in determining an NSPS applicable to all areas of the country (clean as well as dirty) as a minimum, the cost factor must be accorded far less weight in determining an appropriate emission limitation for a source locating in an area violating statutorily-mandated health and welfare standard. . . .In determining the applicable emission limitation, the reviewing authority must consider the most stringent emission limitation in any SIP and the lowest emission rate which is achieved in practice for such type of source."

We feel that "lowest achievable emission rate" can only be met if the above two actions are required.

Since the addendum does not adequately describe the

RECEIVED

NOV 28 1977

MURKES
AIR QUALITY BUREAU
ENF. TEMP. PERM.

AN AFFILIATE OF THE NORTHERN PLAINS RESOURCE COUNCIL

9. The "offset policy" requires a certain tonnage of particulate reduction must be committed to before a source can be allowed to build a facility in an area which is in violation of a National Ambient Air Quality Standard (NAAQS). Reference response #3.

Reference response #4.

Reference response #4.

to be used in correcting the particulate pollution problems, the Department has a responsibility to explain more fully in a final EIS the specific plans necessary to solve those problems. The addendum is inadequate in the following respects:

- 1) The Department generally agrees that the Montana Power Company should do more than it has indicated so far to meet the requirements of the offset policy, yet the conditions do not give specifics as to what is to be done or how it is to be accomplished.
- 2) The Department indicates that the company should do more to control coal dust pollution at the mine, yet does not suggest specific procedures to do so. If the Department recommends a conditional permit in the EIS, the specific conditions must be made explicit. We agree that the Colstrip coal handling facilities certainly do not represent "the lowest achievable emission rate for that type of source." The coal dust pollution from the uncovered, double-crushed coal storage pile is considerable. What kind of additional control will be required? DHES must describe it in the final impact statement. We believe lowest achievable emission rate to be represented by coal storage in a silo or barn such as every other mining facility in this state uses. A covering over the coal storage piles would provide a permanent and sensible means of reducing a large percentage of the particulate pollution. Such a method would afford a more dependable and long-term solution than would temporary measures such as street sweeping or watering haul roads.
- 3) The addendum states that the projected emission rates from Units 3 and 4 are "low", but does not show that the emissions would meet the "lowest achievable emission rate" as required by the offset policy. The DHES says it will require MPC to implement an offset greater than 1 to 1 prior to the operation of Units 3 and 4. It seems to us that the federal offset policy clearly requires more than a fraction greater than 1 to 1 offset. The policy says the reductions must represent "reasonable progress" towards compliance with the standards (as noted on page 5 of EIS). Testimony during the Colstrip 3 and 4 hearings indicated that installation of precipitators in addition to scrubbers could significantly reduce particulate emissions, as well as reduce operation and maintenance problems with the SO₂ scrubbers.
- 4) The addendum does not address the emission monitoring problems that have plagued the plants since their start-ups. How does source test performance compare with day to day emissions? Have the operators been

10. The offset policy requires that a tonnage reduction figure be committed to and the consortium's comments commits it to achieving a figure of 2038 tons/year (T/yr). This is lower than the 2537.6 T/yr stated in the addendum.

11. A dust abatement plan for the coal handling facility will be required. Proper implementation of the plan will prevent airborne dust from leaving the plant facility. The DHES considered the storage of coal in silos, but discarded it as being unfeasible due to the large amount of coal involved and length of storage. The DHES is requiring a system of coal handling that will prevent airborne dust from leaving the plant facility. The use of berms, windbreaks and the application of dust palliatives will be required. For other requirements regarding coal handling refer to Part IV, Conditions of Approval, Condition E, infra, P. 39.

Reference response #11 concerning particulate control. The DHES agrees that there are more efficient systems for removing a greater percentage of SO₂.

Reference response #6.

optimizing scrubber conditions during source tests and then slacking off during the rest of the month? If optimization has occurred, could the scrubbers operate at that high level of efficiency month-long without undue wear and breakdowns? Emission monitoring certainly has not been very good. Note John Floyd of EPA's August 26, 1977, report: "Between vibration and heat problems, these monitors have had a difficult time passing EPA specifications...I understand MPCo tentatively plans to purchase the same model of instruments for 3 and 4. Unless drastic stack and foundation modifications are planned, we may wish to require the installation of another type of monitoring system on these two units." (in Appendix H) If DHES grants a construction permit, one condition should be that more reliable monitors be installed on all four units--probably extractive type monitors.

5) The EIS does not mention the most serious maintenance problems that have occurred--scaling at the wet-dry interface of the venturi scrubber and corrosion of plastic coatings in the throat. Is this scaling and corrosion still occurring?

6) The 1% sulfur limit as required by the Board of Health for coal burned is not sufficiently explained in the EIS.

7) Although a substantial part of the EIS deals with particulate pollution, the EIS does not discuss the recent excess particulate emissions that are reported in the company's monthly reports. In addition, the EIS does not mention the periodic huge slag build-ups in the boiler, nor their subsequent removal with dynamite. Is there any connection between the excess emissions and the periodic slag removal?

8) The EIS should include a much better discussion of the impacts of the present illegal pollution situation. The public and the Board are entitled to a better understanding of the problem in common-sense terms. The present situation represents a serious threat to human and animal health. It has been proven that particulate pollution significantly increases the chance of respiratory infections and disease. This is especially a concern since the town of Colstrip and the area schools are being illegally polluted. Many Indian children attend the Colstrip schools, and are recognized to be prone to developing respiratory problems. The effect of coal dust on cattle is also a concern to area ranchers. Cattle are known to be very vulnerable to respiratory infections, especially newly weaned calves.

DHES RESPONSE

12. The plant operation is probably watched more closely during source testing, but the level of control obtained so far is significantly below the requirements of NSPS. The DHES is confident that even without optimum operating conditions, violations are not occurring. However, even though the plant is meeting the particulate emission limitation, visual compliance remains questionable and additional efforts to improve plant operations are required. (For more monitoring of Colstrip Units 3 & 4 reference response #6)

13. When the addendum was printed, the DHES did not have the latest maintenance report. According to the November 22, 1977, report (a copy of which has been sent to Northern Plains Resource Council (NPRC)), the consortium has made mechanical changes in the turning vanes to reduce erosion at the wet-dry interface (reference diagram Colstrip EIS Addendum October 25, 1977). As a result, the maintenance period for the scrubbers has been extended from two to six week intervals.

Reference Colstrip EIS Addendum, Appendix K, Memorandum to the BHES from Harry Keltz, Engineer, DHES, June 27, 1977.

14. DHES pointed out the difficulty of determining whether the reasons submitted for the excess opacity readings in the consortium's monthly reports were legitimate excuses for those excursions. The DHES has not confirmed any relationship between the excess opacity readings and slag buildup in the boiler.

15. At this time there is no data available on the effect of suspended particulates on the residents of the Colstrip area. However, the 1977 Legislature appropriated \$1,070,000 to the DHES to study the relationships between health and air pollution in selected areas of Montana. Colstrip is one of those selected areas.

¹ Air Quality Criteria For Particulate Matter, U.S. Dept. of Health, Education, and Welfare, 1969.

page 4

Reference Response #1.

9) We disagree with DHES' belief that "units 1 and 2 contributed very little to violations due to the fact that the highest particulate concentrations were noted in 1974." If one studies Table A of the EIS, one sees that TSP emissions went down approximately 25% from 1974 levels in 1975. However, TSP levels increased again in 1976 approximately 19% from 1975 levels and remained up through 1977 during which interval construction activity greatly decreased. Thus, the Department's figures certainly do not substantiate the case that the power plants are not a significant contributor to the high ambient particulate levels. In fact, the figures used are inadequate to prove either that the plants a) are a significant contributor or b) are not a significant contributor.

As regards the Department's "Possible Courses of Action," our position is that the Board of Health's conditional certification of 3 and 4 has been violated by the consortium; thus, the permit must be denied:

A) There have been no plans submitted to meet the 1% sulfur limitation. As the June 27, 1977, memo from the Department to the Board proposes, two things are needed to meet this condition: 1) accurate, certified reliable inlet SO₂ monitors. As the Department pointed out in this memo (included under EIS Appendix K), an accurate inlet SO₂ monitor would be the only way of knowing conclusively what percentage sulfur input was being fed into the scrubber. We cannot depend on the pulverizer to screen out sulfur, since any sulfur pyrites crushed to the point where it can be air-transported will get into the boiler. 2) a preventative program for pre-blending higher sulfur with lower sulfur coal when and if the need arises. The consortium has submitted no plans to incorporate such a preventative program and system.

B) The Board's second condition of accurate, close monitoring of Unit 1's day to day performance has not been met. The monitors have been plagued by bad performance, as this impact statement admits on p. 9. Furthermore, the monitors have not all been certified acceptable by EPA--a fact which this EIS again notes. EPA admits the 1 and 2 monitors are a poor system, as was quoted above. Even if the monitors do get certified, the equipment is marginal. The State Department of Health must show that the same vibration problems will not occur on the equipment on Units 3 and 4.

C) There may have been numerous violations of compliance standards during Unit 1 and 2 operations. The EIS makes no mention of the 592 incidents of "excess particulate emissions" which have been recorded from March through August of 1977 (the last available report). MPCo always has a ready excuse

16. A clarification of what 1% sulfur means was presented to BHES on June 27, 1977. The NRPC has a copy of this report. Condition C of the conditional approval (Colstrip EIS Addendum, October 25, 1977, IX. Possible Courses of Actions, P. 11) addresses the pyritic sulfur problem. An additional permit condition of requiring a preventative preblending plan has been added to the conditions of the permit.

17. The monitors have not all been certified at this time. There is no reason to assume the same types of monitors will be used on Units 3 & 4, although that possibility cannot be ruled out. Refer to Condition F of the conditional approval (EIS Addendum, October 25, 1977, IX. Possible Courses of Action, P. 12). Reference Response #6.

Reference Response #37.

for these violations of the particulate legal standard, but, as noted in the August 26, 1977, EPA report (see EIS Appendix H), "EPA should question and inspect the record and nature of process upset conditions which excused virtually all the recorded excess emissions. I feel some of the excuses may not be allowable or would require more documentation." No decision should be made on approving an air quality permit until it is resolved as to whether all these "excess emissions" are excusable. Our concerns were expressed to the Department in a September 6, 1977, letter from the NPRC staff; to date no satisfactory resolution of the question has occurred.

If the Department opts for conditional approval of the construction permit, we feel the EIS proposed conditions themselves are inadequate:

condition B. The EIS must describe the details of an acceptable offset plan and calculate how greater than a 2537 ton/year reduction will be achieved. The EIS mentions that a dust abatement program is already in effect, but does not give a breakdown of how much pollution reduction should result. As was noted earlier, we do not believe a fraction greater than 1 to 1 offset is enough to represent "reasonable progress" towards attaining air quality standards, as is required in the federal regulations.

condition C. As noted above, the two conditions necessary to resolve the 1% sulfur limit on sulfur must be provisions for pre-blending coals in case coal from Area C proves, as expected, to be high sulfur, and reliable inlet SO₂ monitors.

condition D. Stronger emission limits than the EIS proposes are necessary to comply with offset regulations, as was stated previously. Unit 3 and 4's emissions must represent "lowest achievable emission rates possible for that kind of source." The most efficient scrubbers available must be required as well as precipitators added, as was proposed in the Colstrip 3 and 4 hearings to limit particulate emissions.

condition E. Compliance plans for LARR from crushing, storing and transporting coal must be described and justified. Covering the crushed storage pile with a barn or silo must be required.

Finally, we feel that the Department has acted in a highly improper manner both by holding a meeting with the Montana Power Company and by publicly indicating that the permit "will be approved." Such actions constitute deliberate discrimination against members of the public who are participating in the administrative process. We are left with the impression that the Department has in fact made a decision without considering the public comment period and is now negotiating with the company on the already-weak conditions.

Sincerely,

Wallace D. McRae

Wallace D. McRae

18. It is not indicated whether the 592 incidents were recorded in accordance with the EPA's Method 9 for determining opacity (Federal Register, Vol. 39, No. 219, November 12, 1974, Pp. 39872-39875).

Reference Response #3.

19. A contingency plan for preblending coal has been added to the addendum conditions. E

Reference Response #4.

Reference Response #13.

"The proposed construction permit will be evaluated with respect to: 1. Best Available Control Technology.../Lowest Achievable Emission Rate..." With other power companies reporting or expecting removal of SO₂ in the 90% range, it was discouraging when MPC told the Rosebud County Commissioners the best they could do would be to remove 75%. Apparently MPC told EPA that Units 3 & 4 would get 90% removal.

The Wellman-Lord system is known to remove over 90% of the SO₂ from the flue gas and has the added advantage of not needing a large, alkaline waste disposal site. The latter factor is doubly important on Units 3 & 4 due to the porous soil in the Colstrip area, so surface and groundwater pollution are matters of serious concern.

I expect to receive more specific details on the Wellman-Lord system from a coal fired unit now in operation. I regret that I have not yet received the information. I will forward it on to you when it comes in if it is not too late to enlarge on what I have mentioned.

3.(n.) "Stack monitoring data..." I do not understand how the prerequisite statistical analysis can be used at this time. The monitoring equipment has been faulty and therefore no dependable statistics are available.

3.(o.) "Maintenance reports on Units 1 & 2 have not been timely." I deeply regret that there is a great deal of reason to question the accuracy of some of MPC's maintenance reports. The letter in Appendix I to Mr. Rosch from Mr. Berube on Unit 1 is misleading. Various operating and maintenance personnel at Colstrip told me Unit 1 stopped generating and had to be shut down much ahead of the planned annual overhaul date. The reasons I was given for the claimed "annual overhaul" (which also took place while the unit was shut down) did not include those mentioned in Mr. Berube's letter. I assume the scrubber wash tray and pond return system were also worked on at that time. The unmentioned reasons certainly gave the working men a considerable amount of overtime pay.

1.(A.) "Deny the permit if the consortium... violates the BHES' conditions for conditional certification." Please refer to condition 1 in Appendix A. It is my understanding 1% inlet sulfur has been exceeded.

How is it known if Condition 2 is met if the monitoring system has been faulty? Condition 6 could by no stretch of the imagination be construed to be met by that great sieve referred to as the surge pond. The problems with the surge pond establishes to the public the probability of leakage of other ponds. In Appendix B, Conclusion (a) says, "...every feasible engineering means be taken by the Applicants to minimize such seepage." Conclusion (d.) says the sludge ponds shall be completely sealed. Will the horse be let out of the barn before the gate is closed in this problem? Getting horses back in barns is simpler than getting sludge back into ponds after it leaches down into porous soil.

In view of the above irregularities, problems and violations, DHES seems to be recommending more of the same with conditional approval.

Nuts.

Sincerely,

Nick Golder

26. LAER in the addendum refers to particulate control only.

27. The DHES agrees that other types of SO₂ control systems can achieve a higher degree of control. However, the BHES on November 21, 1975, determined that BACT was that control which would meet current federal NSPS.

28. The only data available are the monthly reports submitted by the consortium and source test data required by DHES. The data are sufficiently reliable to perform statistical analysis.

29. On November 22, 1977, the consortium submitted its second maintenance report on the scrubber after the addendum was mailed. This report indicates progress is being made on decreasing erosion and down time on the system. The DHES has and will continue to review the veracity of the site maintenance reports by inspections.

30. Condition #1 of the BHES order applies only to Colstrip Units 3 & 4 (Colstrip EIS Addendum, October 25, 1977, Appendix A).

31. Source tests, also a form of monitoring, have indicated compliance during the times of testing. The question on monitors per se was addressed previously in Response #6.

32. In 1975 consortium officials discovered that the right side of the surge pond's abutment (the surge pond holds the water taken from the Yellowstone River) was leaking. A concrete cutoff wall was built into the abutment, reducing the seepage to a negligible amount. Soon after, the left side began to show a significant amount of seepage. A similar wall was built in the left side, again reducing the seepage to a minimum. The consortium's representative, MPC, has specific information concerning seepage reduction figures.

LAW OFFICES OF
Graybill, Ostrem, Warner & Crotty

LEO C. GRAYBILL (1973)
LEO GRAYBILL, JR.
DONALD L. OSTREM
GREGORY H. WARNER
G. ROBERT CROTTY, JR.

TELEPHONE (406) 452-8579
400 FIRST NATIONAL BANK BUILDING
GREAT FALLS, MONTANA 59401

OUR FILE # _____

November 27, 1977

SEARCHED	INDEXED
SERIALIZED	FILED
NOV 27 1977	
FBI - GREAT FALLS	

Air Quality Bureau
Environmental Sciences Division
Department of Health & Environmental Sciences
Cogswell Building
Helena, Montana 59601

Re: Comments on Supplemental Environmental Impact
Statement for Colstrip Electrical Generating
Units 3 and 4 - Application for Permit

Gentlemen:

Enclosed herewith are our Comments, as set forth
above.

Very truly yours,
GRAYBILL, OSTREM, WARNER & CROTTY

BY 

GHW:gm
Enclosure

RECEIVED
NOV 28 1977
AIR QUALITY BUREAU
DEPT. OF HEALTH & ENVIRONMENTAL SCIENCES
HELENA, MONTANA

COMMENTS ON SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT - COLSTRIP
ELECTRICAL GENERATING UNITS 3 AND 4 - APPLICATION FOR PERMIT

We have been requested, on behalf of our client, the Northern Plains Resource Council, to submit some comments upon the Draft Environmental Impact Statement Addendum prepared by the Department of Health and Environmental Sciences for Colstrip Electrical Generating Units 3 and 4. The review process is pursuant to Section 69-3911 of the Montana Clean Air Act and the corresponding requirements of the compilation of an environmental impact statement under the Montana Environmental Policy Act set forth in Section 69-3911(7). Our comments are set forth under the following subject headings:

1. Effective date of the Application proceeding:

The reference to the fact that a review of environmental factors under the Major Facility Siting Act, as distinguished from the subject permit applications, commenced on June 6, 1973, is ambiguous, since the Applicants had refused to apply for a construction permit until recently. The ambiguity in the statement should be clarified by identifying the date of the new permit application upon which this Environmental Impact Statement is based as being August 17, 1977. Had there been a pending permit application, then there would be no need to reopen. This is supported by the position of counsel for the Department of Health and Environmental Sciences, Sandra Muckleston, in correspondence with the Applicants, and stated to the Northern Plains Resource Council.

The Applicants should not be permitted by unilateral assertions in the application to eliminate the requirements of Montana's Clean Air Act as they exist under Section 69-3911, at the time of the application in August, 1977.

It should further be clarified that the air and water quality standards reviewed in the Major Facility Siting proceedings were not initiated or deemed in compliance with the permit requirements of Section 69-3911, which distinction was carefully preserved by the Board of Health in its Findings of Fact and Conclusions of Law, particularly Conclusion number 3, reserving the necessity of obtaining a permit in accordance with the rules and regulations implemented under Section 69-3911. Appendix A.

The effective date of filing of an application for permit is spelled out in Section 69-3911(5) of the 1975 Amendment to Montana's Clean Air Act, and is effective at the time new information which has been accumulated and required, and the request resubmitted for a construction permit. We note at this time that not all of the consortium's information, particularly tests performed by the consortium's contractor, has been presented to the Department of Health and Environmental Sciences.

33. Since July 21, 1975, no application from the consortium for a construction permit under the Clean Air Act of Montana has been pending before DHES until the consortium filed with the Department on August 17, 1977, a request for a construction permit under express Reservation of Rights. A previous "application" referred to by applicants as the "application of June 6, 1973" was an application for certification of environmental compatibility and public need required by the Major Facility Siting Act (R.C.M. 1947, Title 70, Chapter 8) which was served on DHES as a result of a suit in the First Judicial District of the State of Montana. This "application" was denied by the Department on July 21, 1975.

34. The DHES has received all final reports and considers the application filed.

2. Total Suspended Particulate Analysis:

The statement concludes, based upon both the Department's and the Applicants' air quality data, that there is a deterioration of air quality from 1972-1976. In the Department's analysis of total suspended particulates, reference correctly is made to the offset policy of the Environmental Protection Agency. This policy is an interpretation of the prevention of significant deterioration regulations. However, throughout the entire statement no specific mention or discussion is made of the regulations. This is an important element in determining compliance with applicable Federal and State air quality standards, and should be addressed, in view of the recognized deterioration in air quality. As the Department is aware, the classification of the Cheyenne Indian Reservation area near Colstrip to Class 1 under the said regulations will be a substantial factor in determining compliance with these standards.

The statement that portions of the SIP are affected by the Federal Clean Air Act amendments for 1977, is not entirely correct. The requirements of an approved Implementation Plan, in effect, under the Clean Air Act, before the 1977 Amendments, will not be affected. Note: See effective date of 1977 Amendment, Section 406, Public Law 95-95.

It is inconsistent for the Department to address the offset policy, which is directly applicable to the air quality problems at Colstrip, and ignore the provisions of the Montana State Implementation Plan and Environmental Protection Agency regulations for PSD. The lack of revision under the SIP should not eliminate Applicants' meeting the present standards and regulations formulated under the authority of the Clean Air Act of Montana, 16-2.14(1)-S1400(12).

3. Emissions:

The Environmental Impact Statement gives a very cursory description of the emission levels projected, based upon the performance of Units 1 and 2. One area of emissions that deserves more detailed analysis is in the area of particulates. The same is most relevant in view of the fact of the total suspended particulate air quality problem at Colstrip. In this connection, it is important that monitoring of peak readings for particulates on the existing units be required rather than merely taking a 24-hour average. The maximum allowable hourly rate of particulate matter is set in Section 16-2.14(1)-S1450 - Particulate Matters, Fuel-burning Equipment.

Further, it is our understanding that recorded violations have increased for opacity violations for Units 1 and 2, as previously noticed to the Department by the Northern Plains Resource Council. Visible Air Contaminant Restrictions are set in 16-2.14(1)-S1460.

35. See Federal Register, Vol. 42, P. 57479 (Thursday, November 3, 1977).

36. Peak readings of two minutes or more were recorded and submitted in the consortium's monthly report.

37. Prior to July the frequency of opacity excursions, as reported in the consortium's monthly reports (which summarize transmissometer readings), were on the upswing. Recent months have shown a decline in opacity excursions according to these reports.

4. Monitoring:

There is a lack of information or detail in the Environmental Impact Statement as to the type, methodology, procedure and responsibility for monitoring. As the report points out, the record of monitoring on Units 1 and 2 to date has not been adequate. The monitors are still awaiting EPA certification at this time, although the plants have been subject to the particular monitoring requirements in connection with the conditional approval of Units 3 and 4 under the Siting Act since July 22, 1976, over a year ago. This area needs more detailed analysis, with specific proposals as to how future monitorings are to be carried out. The vagary of this particular area can only invite the confusion that has existed since the monitoring of Units 1 and 2 began.

5. Plant Evaluation:

It is stated, in Item No. 6 of the Plant Permit Evaluation, on page 10 of the Statement, that the mass emissions of particulate matter are not expected to cause violations of the State and Federal Ambient Air Standards, although they will add to the burden of the TSP violation. It should also be pointed out that there is a record of opacity or visible contaminant violations for Units 1 and 2 over the past year. No analysis is given as to how this problem will be solved.

The adequacy of the emission monitoring program, of course, cannot be determined until the choice of equipment and vendors for the emission monitoring system has been made. A permit should not be granted, or condition imposed, without this basic information, as referenced in paragraph 4, page 10. The Statement again makes a cursory reference to the Class 1 increments under PSD, and any determination should be contingent upon EPA's approval, and pending revision of the SIP.

6. Recommendation:

The Department has recommended a conditional approval of the permit applied for. It should be pointed out that the Applicants have persisted in knowing violations of the Board of Health and Environmental Sciences conditional certification under the Siting Act, in delaying the permit for construction, as required, and in the lack of adequate performance of the monitoring conditions set forth therein still unresolved. On this basis, a permit should not be approved. Further, several conditions are proposed in a general way, with no mention of details, which are to be worked out later. It is essential that the basic elements of conditions be set forth prior to implementation, in order to avoid the lack of certainty as to the meaning of those conditions between the parties. Proposed Condition F, allowing the Applicants to provide a detailed emission monitoring program one year before Units 3 and 4 commence operation, and after construction

Reference Response #6.

38. Although there have been numerous readings in excess of 20% opacity as recorded by the instruments, there is no evidence that the results of these excursions will be recorded by a total suspended particulate (TSP) ambient monitor.

39. The DHES believes the conditions are stated specifically in Part IV, Conditions of Approval, infra, P. 39.

of the plants, would place the Department in a weak position for demanding monitoring requirements. As state above, all essential elements of a monitoring program should be worked out prior to determination of the Application.

7. Summary:

In short, the Supplemental Environmental Impact Statement Addendum prepared for the permit application, construction and operation of Units 3 and 4, is extremely brief, and lacks information in essential areas, as set forth above. These items are of a current nature, and not available in prior studies and review. This information should be developed in order for the Department to give adequate consideration as to whether the plants will in fact comply with the Clean Air Act. The Statement is particularly vague as to the record of monitoring of performance of Units 1 and 2, and insufficient to support approval of the permits applied for. Furthermore, the Statement does not address essential areas of compliance upon which the performance of Units 1 and 2 have been unsatisfactory, particularly particulates, visible air contaminant restrictions, and PSD.

40. At this time the consortium's plans concerning monitoring are vague; therefore DHES put Condition F in the conditional approval recommendation (Colstrip EIS Addendum, October 25, 1977, IX. Possible Courses of Action, P. 12) to assure that there would be monitoring. Also, NSPS which apply to these plants require monitoring. The monitoring question was discussed in response #14.

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
Federal Building
Missoula, Montana 59807

1990

NOV 22 1977



Michael Roach, Chief
Air Quality Bureau
Dept. of Health & Environmental Sciences
Board of Health Building
Helena, Montana 59601

Dear Mr. Roach:

I greatly appreciate the opportunity to comment on the addendum to the Environmental Impact Statement for Colstrip Units 3 & 4. The Air Quality Bureau has had a formidable task in its evaluation of potential impacts of the proposed power development, and I congratulate your efforts.

The Forest Service is still concerned about potential nitrogen oxide, sulfur oxide, and fluoride effects on ecological systems proximal to the power plants. The conclusions and recommendations of the impact statement addendum are predicated on the assumption that the power plants will meet state and national air quality standards. However, there is considerable doubt whether these standards truly will protect forest ecosystems. Scientific literature indicates injury and damage can occur to plants at sulfur dioxide concentrations 10 times less than the State of Montana standard. Our cooperative studies with the University of Montana relative to Colstrip Units 1 & 2 have shown pollution injury to ponderosa pines on permanent study plots near Colstrip, at nearly non-detectable pollutant levels, far below state and national standards. Because Units 3 & 4 will essentially triple emissions of sulfur oxide, fluorides, and nitrogen oxides, it is clear that a significant threat exists to the National Forest System lands downwind from the power plant complex.

The Forest Service also is concerned about the siting of the proposed facility relative to efficient use of the heat generated by the power plants. An extensive cooling system is required to dissipate waste heat if the project is located at Colstrip. Other countries (i.e., Russia) are using the principle of cogeneration, in which the coal-fired power plants are located near population centers. The excess heat is conveyed to the city and provides up to 40 percent of the space heating requirements, rather than wasting it to the atmosphere. Is it not possible for the State of Montana to require cogeneration in the utilization of its coal?

DHES RESPONSE

41. The BHES will consider revision of the Ambient Air Standard Rule in 1978. Concern whether the limits stated in the current rule are protective of forest ecosystems should be presented to the Board at its hearing on the rule.

42. This suggestion will be passed on to the consortium.

I hope these brief comments are of value to you. The Forest Service will continue to monitor for air pollution injury and damage to vegetation near Colstrip, and we will keep you informed.

Thank you for the opportunity to contribute.

Sincerely,


ROBERT H. TORHEIM
Regional Forester

November 21, 1977



Air Quality Bureau
Environmental Science Division
Department of Health and Environmental
Sciences
Cogswell Building
Helena, Montana 59601

To Whom it May Concern:

As a citizen of Colstrip, Montana, and on behalf of other citizens of Colstrip and Eastern Montana this letter is written to urge the Department of Health to issue any further Construction Permit that deems necessary for Colstrip 3 and 4, as quickly as possible without any further conditions or delays.

We citizens of Colstrip believe that the town of Colstrip is as clean or cleaner than other little towns in Montana and we want Colstrip 3 and 4 to be constructed without further delay, conditions, and legal maneuvering.

Sincerely,
Mattie Haugian
Mattie Haugian

MH/jk

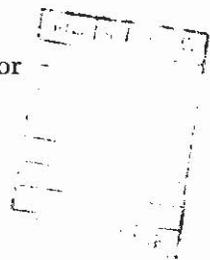
NOV 21 1977
AIR QUALITY BUREAU
ENV. TEMP. PERM.



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

BILLINGS AREA OFFICE
316 NORTH 26TH ST.
BILLINGS, MONTANA 59101



NOV 16 1977

DHES RESPONSE

IN REPLY REFER TO:
Environmental Quality

Mr. Michael Roach
Chief, Air Quality Bureau
Department of Health and Environmental Sciences
Cogswell Building
Helena, Montana 59601

Dear Mr. Roach:

This office has, as requested by your letter of October 25, reviewed the addendum to the November, 1974, Department of Natural Resources and Conservation's Colstrip Units 3 and 4 environmental impact statement, and wishes to submit the following comments:

1. We believe that the addendum should provide more information on the Class I Air Quality Redesignation on the Northern Cheyenne Reservation and its potential effects upon the Colstrip mine and generating complex. The present discussion is vague, very brief, and generates many questions.
2. The text indicates in several instances that particulate levels are not meeting the National Ambient Air Quality Standards and that SO₂ emissions will not meet Class I increments. Consequently, we would suggest that in the DHES recommendation for approval that a provision be added that requires that "state of the art" pollution abatement equipment be installed in the coal fired power plants.
3. Under Appendix B, Item F, "Conclusions of Law", we are pleased to read that the Applicant's general contractor, Bechtel Corporation, will work with the Northern Cheyenne Tribe in an effort to develop skilled labor among tribal members for employment during the construction of and operation of Units 3 and 4.

Also, in Item G, "Conclusions of Law", it is noted that the applicants, at their expense, shall in cooperation with the Northern Cheyenne Tribal Council and MDHES, construct, operate and maintain an air quality monitoring station on the reservation. The data collected will be furnished to the Northern Cheyenne Tribe and the MDHES. We believe that this type of cooperation will be beneficial to all concerned.

43. The question of the Class I increments of PSD can only be addressed by EPA. Reference response #35.



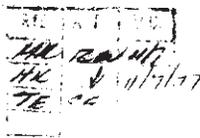
NOV 16 1977
BUREAU OF INDIAN AFFAIRS
BILLINGS, MONTANA

We appreciate the opportunity you have provided to review the draft addendum.

Sincerely yours,


Acting Area Director

Havre, Montana
Nov. 3rd. 77



Montana State Dept. of Health
Helena Montana 59601

Dear Sirs;

I thought I would write you to express my veiw and feelings on the proposed Colstrip #3 and #4. I definetly dont think there is a need for it. I think it just another scheme of Montana Power Co. to get their hands on more money. this Company is getting so greedy its a fright. it is a regular ripoff outfit, they have been used to ripping off the people of Montana now for years, and they know they can get by with it so this is why they continue with their same old schemes. I am definatly against everything that Montana Power even suggests. another thing is they have the most crooked lawyers in the state so you know who they are rooting for, they pay them good and you know its to Montana Powers own advantage to have these men. What I think is that this Company should be a government takeover, it would be much better for the people of Montana.

Not only that, but why should we have all this smoke and pollution in our state for the benefit of Montana Power and these other utilitis companies. I think that most everyone can see through their schemes. all it is for is to gain more power for Montana Power Co. and I think they have too much of that right now. as the name implies. I think they are doing as they like on anything they want and get by with too. at least so it seems to me.

I think it would be much better to sell the coal to the other utilites comp. and have the state get a benefit out of that. that I think would suit more montana people, rather than have all this smoke and foul air in our state.

I am strongly opposed to Montana Power Co, and cant help but feel that way after seeing all the rouping and ripoffs they are giving the people of our state by their constant wanting another interim rate hike on either gas or electric. what I think they need is a cutback on their expendatures. they could easily go that route from what I have seen. but what the hell they seem to think as long as we get what we ask for, why not.

Just to sum up my feelings along with a lot of others I dont think that we should continue giving Montana Power Co. their desires like we have. I think its about time we put our foot down and say now we are going to do it our way not yours, I think this has been long in coming.

Yours Pruly
Reuben P. Miboe
Reuben P. Miboe

Reuben P. Miboe
Star Rt. 36 Box 921
Havre, Mont 59501

NOV 10 1977
ONE



THE MONTANA POWER COMPANY
GENERAL OFFICES: 40 EAST BROADWAY, BUTTE, MONTANA 59701 - TELEPHONE 406/723-5421

DHES RESPONSE

November 17, 1977

Department of Health and Environmental Science
Air Quality Bureau
Cogswell Building
Helena, Montana 59601

Attention: Michael Roach

Re: Comments of Applicants to Addendum of Colstrip
3 and 4 Environmental Impact Statement

Dear Mr. Roach:

On behalf of the five utilities constructing Colstrip Units 3 and 4 we submit these comments and additional information to the addendum of the EIS prepared for such Units.

We urge first that the Department unconditionally approve the permit to construct Units 3 and 4. Sufficient conditions are already attached by the certification granted these units by the Board of Health and Board of Natural Resources to insure that air quality standards will be met when these units begin operation.

As to the proposed conditions set forth under alternative 3 on pages 11-12 of the addendum, we comment as follows:

1. If Condition "A" is intended to state the language covering ambient SO₂ concentrations, including frequency, we have no objection to such condition because we do not intend to operate these plants in violation of any standard.
2. We have no objection to condition C but believe this condition relates to BHES condition 1, rather than condition 3. Likewise we have no objection to condition F regarding the emission monitoring program for installation on Units 3 and 4.
3. We are unable to accept condition D as written because we are unclear as to its intent or meaning. More important, it institutes a condition which should properly

44. This language is found in the state standard.

45. Correction noted.

25

be addressed in the operating permit. If the limitations on particulate and SO₂ emissions are to be governed by the new source performance standards cited at the top of page 11 and BACT means control technology will be installed so the emissions do not exceed NSPS emission limits as adopted by the Board of Health, we have no objection to the condition if it is rewritten to so specify this understanding. If, however, the condition means that Units 3 and 4 must maintain emission limits lower than NSPS standards we feel such condition is discriminatory to these plants, is written ambiguously and provides a subjective test. We feel there is no legal authority to subject these plants to more stringent emission limitations than other plants in Montana which we require to meet NSPS standards. Further, we do not feel that the condition is necessary because we have demonstrated in the operation of Units 1 and 2 a control technology which will meet present NSPS standards and that should be the objective standard for Units 3 and 4.

4. Conditions "B" and "E", as we read them, are applying the EPA Interpretative Ruling under 40 CFR 51.18. First, we dispute that Colstrip 3 and 4 is siting in a non-attainment area for particulate matter and therefore such conditions are unnecessary. We do so for the following reasons:

(1) MPC has 3 ambient monitoring sites within an area of 3 miles of the plants. DHES has 2 other monitoring sites in the area southeast of Colstrip. When EPA published its determination on July 8, 1976, that the "Montana SIP is substantially inadequate to attain and maintain national primary and secondary standards for TSP in the Southeast Montana Coal Resource AQMA" it made such decision by considering only MPC #3 site. While site #3 did show readings as outlined on Table "A" of the addendum, the "area" involving these plants cannot legally or technically only include one monitoring station, but should also include the other monitoring stations in the area. When they are averaged no violations of the annual or 24-hour national primary or secondary standard have occurred since 1975. Furthermore, since July 1, 1976, when EPA issued its determination, two significant events have occurred which clearly allow the siting of these plants in the area.

1. On August 16, 1977, EPA issued a policy decision that "rural fugitive dust should not be counted in deciding attainment status for particulates". Strong winds with dry surface conditions produce the highest measurements of TSP.

46. The DHES believes now is the time to set the limitations to be met so they can be considered in the design of Colstrip Units 3 & 4. Also the emission limitations achieved on Units 1 & 2 best reflect the definition of maximum control as specified in MAC 16-2.14(1)-S1400, Permits, Construction and Operation of Equipment.

47. Colstrip is in a non-attainment area for TSP.

48. If one monitor in an area indicates non-compliance, the area is classified as non-attainment (Curran, Thomas, Guidelines for the Interpretation of the Air Quality Standards, EPA, February, 1977).

49. The DHES believes the dust emissions in the Colstrip area are largely caused by man's activities and are not of natural origin.

For example, the high reading on #3 on March 16, 1975, occurred on a day which had only one hour with wind speeds greater than 30 mph. The influence of strong winds is minimal unless they are coincident with an extended period of dry weather. Even on March 16, 1975, the particulate measurements at MPC #2 remained low. This supports the concept that some local source in the town of Colstrip helped account for the abnormally high reading at #3 on that date. Extended periods of dry weather tend to produce gradually increasing amounts of particulates. Although there is some subjectivity on the selection of wet and dry days, the comparison of seasonal sets of data in these two categories shows a sharp contrast. Examples of this are shown in the period from October 25 through November 11, 1975 and in the last half of August and first half of November, 1976 and during March, 1977. The measurements of suspended particulates at stations #2 and #3 for wet and dry days are presented in Table II. There was very little construction activity in the town of Colstrip in either 1972 or 1973. During each year there were six dry days with readings above 100 micrograms per cubic meter at #3. There was a notable increase in particulate measurements beginning in late August, 1974. The absence of any comparative abrupt jump to higher values at #2 for the last half of 1974 clearly indicates that some local source in Colstrip was responsible for abnormally high readings at #3. High readings at #3 continued to occur intermittently in 1975-1976-1977. By contrast, the dry day record at #2 remained almost constant. The annual arithmetic average of the dry day readings at #2 held at 25 or 26 micrograms per cubic meter for five years. The important influence of a wet surface is illustrated in the right half of Table II. The sets of wet days at #3 have a range of annual values from 38 to 55 micrograms per cubic meter. This is in sharp contrast with the annual averages for dry days of 96 through 290 micrograms per cubic meter. Yet the annual averages for wet days at #2 range from 6 through 16 micrograms per cubic meter to compare with dry day average values of 25 or 26 at #2. The new fugitive dust policy recognizes a new source review which considers differences between fugitive dust in urban and rural areas. Colstrip is in a rural area where, as explained above, fugitive dust is a major problem. Consequently, for new sources of particulate matter proposing to construct in rural areas exceeding TSP NAAQS, such sources are allowed to construct without being subject to emission offset requirements required under the Interpretative Ruling, so long as they meet new source performance standards (NSPS) (49 CFR Part 60) "and the impact of their emissions plus the emissions from other stationary sources in the vicinity of the proposed locations, along with normal background, is not projected to cause

50. The review of particulate data from the Colstrip area by DHES indicates:

1. It appears that TSP from the stack has minor impact in the town of Colstrip.
2. Considering MPC's TSP station #3 in Colstrip, no relationship can be developed between wind direction and mass loadings of TSP.
3. Readings from MPC's station #3 are very probably biased low based on poor site selection. Tall trees on approximately three sides of the sampler affect TSP readings especially in the summertime, such that readings would probably be low. Due to considerable historical data, the station should probably not be moved.
4. There are time periods when Western Energy Company's TSP station #1 correlates well with MPC's station #3. The previous station is just ¼ mile upwind from the intown station. It is not clear what contributions the strip mines impart to TSP readings in town.
5. August 1977 and September 1977 TSP readings were lower than normal monthly readings but too little data is gathered to indicate a trend. October's reading in fact was back up to 91 micrograms per cubic meter.
6. There is no basis for MPC's desire to average data from different air monitoring stations.
7. To quantify TSP readings in and around Colstrip an additional sampler should be installed just NE of the power plant and in the trailer village. The Company should also establish a nonbiased TSP station in Colstrip.

violations of NAAQS". (Environmental Reporter, Aug. 26, 1977, Vol. 8, No. 17, P. 665). Colstrip Units 3 and 4 will not emit more than 408 lbs./hr. of particulate matter per unit at 100% load, while the NSPS standard (0.1 lbs./mill. BTU) allows 757 lbs./hr. All 4 units will not cause any particulate violations. The predicted concentrations of all 4 units for particulate matter will not exceed 5.9 micrograms per cubic meter (MSU methodology) for 24-hour period and 0.11 for annual sampling period and the background levels where these concentrations will impact (SSE of plants) near the BN or McCrae sites show levels far below the standards (BN-24 hr. max.-93; annual-29; McCrae-24 hr. max-102; annual-14.3). Consequently, adding the present background at the sites where the existing sources will impact to the present background levels clearly sustain our contention that NAAQS and state standards will not be violated.

2. A dust abatement program near site #3 began in August, 1977. Nearby construction activity (shopping center, school, etc.) and unpaved streets in Colstrip (including one immediately adjacent to #3) we contend have been the major factors in producing the high particulate readings in 1974. This decreased as streets were paved in 1975. During 1976 and 1977, strip mining and reclamation activity to the west of Colstrip contributed to the high numbers, but as reclamation becomes more complete and the mining activity in that area decreases so will the TSP readings at #3. More important, however, is the fact that a concentrated dust abatement program near #2 has proven that TSP readings were clearly caused by construction activities which have not been completed and fugitive dust. Please find attached a description of the activities with exhibits of the appropriate areas.

We again assert that the operation of the plant will not contribute or impact #3 monitoring site where TSP violations have been recorded. Particulate measurements at station #2 indicate essentially no change following startup of these plants.

It is clearly the duty of the Department of Health, in accordance with the Clean Air Act, to submit to EPA a plan revision in order to bring such area within the national standards. Consequently, and independent of the pending application of petitioners, this department undertook such study "to not only create a long term solution for the attainment and maintenance of the National and State Ambient Air Quality Standards in the Southeastern Montana Coal AQMA, but also to eliminate the present violations of the Montana total suspended particulate standards as soon as possible". We submit such

51. The DHES data indicates Colstrip Units 3 & 4 will probably not cause TSP standards to be exceeded or impact MPC monitoring site No. 3.

action is independent of this application and will result in the area surrounding Units 1-4 to be in compliance by the time 3 and 4 come on line in early 1981. The deadline for submittal of the plan is July 1, 1978. The study period and submission date clearly will bring all of the six county area (including the Northern Cheyenne Reservation) into compliance by the time Units 3-4 begin operation. As a result (and because Units 1-4 admittedly will only contribute to ambient particulate levels in a minor way, and not even at the most sensitive site of Colstrip #3 monitoring site) by the time the facility is to commence operation total allowable emissions for TSP from the existing sources in the region, from new sources which are not major emitting facilities and from Units 3 and 4 will comply with all standards and thus such region will not be a non-attainment area.

The Interpretative regulation Section IV (A) clearly states that in order to impose offset conditions including lowest achievable emission rate (LAER) "the reviewing authority must find that the allowable emissions from a proposed source would exacerbate an "existing" violation (i.e., as of the source's proposed start up date) of NAAQS." 41 Fed. Reg. 55528. As of 1980 or 1981, there will be no "existing" violation and therefore Part IV does not apply.

In addition, by the Interpretative Ruling, "if a source seeks to locate in the 'clean' portion of the AQCR and would not affect the area presently exceeding standards or cause a new violation of the NAAQS, such a source may be approved." 41 Fed. Reg. 55528; Sec. III (C). As explained above, Units 3 and 4 are in effect locating in the clean area of the region because the site #3 violations come not from the plants but other non-stationary sources.

We are not unmindful of Appendix E in the addendum. However, that determination clearly ignores or is not based upon valid data. More important, such determination should be made by the reviewing authority (DHES) and not EPA. For the reasons stated above we submit the valid approach is to find that the area (or region) is not a non-attainment area.

In the alternative, and even though we strenuously object to the position of EPA that the plant site is in a non-attainment area, we submit herewith the data compiled by Midwest Research Institute regarding the offset reduction program and a compliance plan for reducing emissions (if any) associated with the transporting of the coal at the plant coal handling facility.

52. Before construction, an offset particulate emission reduction must be met. In addition, a revision of the State Implementation Plan will require all sources to control emissions for the achievement of federal ambient air particulate standards.

53. No evidence is available or has been submitted to the DHES to support this contention.

54. The DHES maintains proposed Units 3 & 4 are locating in a non-attainment area.

55. The TSP data indicates the area is not in compliance with federal particulate standards.

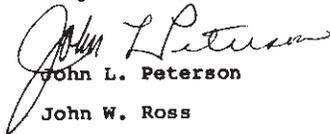
Reference Response #6.

While our application (appendix "G") estimated particulate emissions to be 2537.6 under worst coal conditions (365 days x 100% availability x 408 lb./hr.), the realistic offset figure should be 1915.6 tons per year based on average coal conditions because the offset data reflects computations based on tons per year. Clearly the plants will not be operating under worst coal conditions of 408 lb./hr. at 100% load for 365 days per year and therefore the acceptable figure should be 1915.6 tons per year. To summarize the MRI data, the offset as shown in Table I will be at least 2065 tons per year, more than a 1 to 1 ratio.

56. DHES agrees that the plant is not likely to operate at worst case coal conditions 71% of the time.

As to Condition E, dealing with our plant coal handling facility (excluding any facilities owned and operated by Western Energy Co.) applicants propose as a condition of construction to reduce blowing coal dust from the telescopic spout above the storage pile immediately south of Colstrip Units #1 and #2 by designing the control system so that spout will be held constantly at a closer distance to the pile. Our analysis shows that much of the dust observed to be escaping at this point is the result of an excessive distance between the telescopic spout and the pile, which should be corrected by the redesign feature, to which we will agree as a condition of constructing Units 3 and 4.

Respectfully submitted,



John L. Peterson

John W. Ross

William H. Bellingham

JLP/jk
Attach.

FUGITIVE DUST PLAN - COLSTRIP

In a compliance plan prepared by The Montana Power Company and submitted to the Department August 17, 1977, seven specific steps were outlined. These steps were offered as preliminary, but immediate, action to mitigate elevated TSP readings measured at the high-volume air monitor known as Montana Power #3. Many of the steps outlined in that compliance plan have now been or are being accomplished. We submit this statement as an interim status report. The comments offered are in the same numerical order as were the steps outlined in the above compliance plan.

Appendix to MPC comments.

- (1) Street sweeping has been ongoing on a twice-weekly schedule. We are finding some of the older streets are contoured in such a way as to make vacuum sweeping difficult. We are sweeping every area in which the machine can be safely operated.
- (2 & 3) We shall combine our comments on these two closely-related steps. Paving has been completed in the service station and snack shack parking area. Several unsurfaced streets or portions of streets have been paved such as Park Street, the operations trailer park and access roads north of the plant site, and the railroad crossing on the plant access road. In all, approximately 305,500 square feet have been paved. Alleys near The Montana Power #3 sample site have also been chipped and sealed. Unauthorized "shortcuts" located about the town have

either been closed with guard rails or have been surfaced and upgraded to secondary access standards; in any case, through traffic has been stopped by at least closing one end of the existing trail. The area immediately adjacent to the Plant Administration Building has been landscaped. The remaining plant support area, more further removed from the Administration Building, has been stabilized with a six-inch lift of scoria over an area of about nine and one-half acres. Areas not treated with mechanical applications are being scheduled for seeding in the spring. Not a part of this project, but still noteworthy, was the completion of the city park this summer. We will continue to plant or sod areas as construction on or around them is completed.

Appendix to MPC comments.

4. The reclamation of disturbed mining areas continues in the normal conduct of business by Western Energy Company.
5. This step is incorporated in our comments as to steps 2 and 3.
6. In this regard, a great deal of progress has been realized. As mentioned before, the paving of the service station and the "snack shack" has been completed. Further, the school district has completed the paving of the high school parking lot and the area surrounding the new school construction. The disturbed areas not paved have been prepared for seeding. The completed campus will be a very pleasant and well-landscaped addition to the community.

7. The final step outlined involved the use of lignin liquor. We have been very disappointed with the results of our initial applications of this material as a dust suppressant. The nature of the scoria, used as a road metal at Colstrip, is such as to minimize dust abatement from applications of lignin. The scoria is fryable and continues to mechanical breakdown thereby generating a continuous supply of fine material. We are discontinuing the further applications of lignin and are investigating other possible dust control agents.

Appendix to MPC comments.

As to the references of additional monitoring and analysis in the August 17 compliance plan, we have been running five high-volume air samplers on a 24-hour on, 24-hour off basis. The data from these additional sample runs is available for the Department's use.

A comparison of the geometric means for August, September and October from 1972 to the present is shown below. The data points used are based on available monitor readings in micrograms per cubic meter.

	<u>August</u>	<u>September</u>	<u>October</u>
1972	65.61	40.91	41.23
1973	96.60	62.60	77.89
1974	268.63	228.28	167.23
1975	120.11	102.39	111.04
1976	164.44	78.03	110.41
1977	62.60	67.75	80.03

It would appear that the TSP readings at Colstrip are decreasing toward levels similar to those encountered prior to the recent increase in construction activity in the townsite.

TABLE II. COMPARATIVE SETS OF PARTICULATE MEASUREMENTS ON PREDOMINANTLY WET AND DRY DAYS AT SAMPLING STATION #2 IN A RURAL AREA THREE MILES SOUTHEAST OF COLSTRIP, AND STATION #3 IN THE TOWN OF COLSTRIP, FOR THE YEARS 1972 THROUGH JUNE, 1977. VALUES ARE IN UG/M³.

DHES RESPONSE

Appendix to MPC comments.

Representative Dry Days				
Date	1972		1973	
	#2	#3	#2	#3
Mar. 18	166		Mar. 1	31 98
May 17	79		7	15 94
30	79		29 M	75
June 4	105		31	26 154
16	77		Apr. 12	55 129
July 4	97		May 6	27 104
10	87		12	31 118
16	65		June 11	32 135
Aug. 9	105		Sept. 21	7 63
Sept. 14	80		Oct. 21	15 91
20	81		27	13 190
Oct. 21	114			
Nov. 7	104			
13	88			
19	108			
Averages	96		25	114
Representative Wet Days				
Date	1972		1973	
	#2	#3	#2	#3
May 11		46	Mar. 13	7 34
June 10		67	Apr. 6	21 67
July 22		53	18	34 41
Aug. 3		127	30	2 46
21		38	May 24	4 60
Sept. 26		33	June 17	26 41
Oct. 14		24	29	27 44
26		23	Sept. 4	M 64
			9	14 64
			15	12 47
			Oct. 9	3 49
			15	12 36
Averages		51	15	49
Representative Dry Days				
Date	1974		1975	
	#2	#3	#2	#3
Feb. 17	6	108	Jan. 3	62 97
Apr. 23	M	112	Mar. 16	26 282
June 13	25	155	Apr. 15	12 147
Aug. 24	56	140	May 3	34 129
Aug. 29	21	515	15	17 149
Sept. 5	20	323	June 2	19 158
17	25	286	July 2	26 144
23	32	612	14	25 260
Oct. 17	32	451	20	21 173
23	33	287	26	34 309
29	15	242	Aug. 1	27 85
Nov. 4	8	315	7	33 194
Dec. 10	4	226	25	16 126
			31	12 127
			Oct. 18	M 118
			30	21 218
			Nov. 5	23 282
			11	M 413
Averages	26	290	26	189
Representative Wet Days				
Date	1974		1975	
	#2	#3	#2	#3
May 20	3	33	Apr. 27	7 76
26	11	53	May 9	6 M
June 7	5	34	June 8	8 41
Sept. 11	3	51	July 8	11 75
Oct. 5	5	50	Oct. 12	6 26
10	8	51		
Averages	6	45	8	55
Representative Dry Days				
Date	1976		1977	
	#2	#3	#2	#3
Mar. 16	23	172	Mar. 5	27 110
28	24	98	11	6 161
Apr. 9	32	156	23	46 306
Aug. 13	21	128	Apr. 10	14 110
19	27	126	16	31 232
25	16	161	22	26 187
31	26	282	May 10	32 142
Sept. 30	29	205	June 6	27 221
Oct. 12	18	428	24	22 112
30	8	91	30	20 162
Nov. 5	18	191		
11	9	306		
18	28	299		
23	90	147		
Averages	26	199	25	174
Representative Wet Days				
Date	1976		1977	
	#2	#3	#2	#3
Apr. 27	10	14	May 16	13 56
May 21	10	57	28	7 32
June 8	M	107	June 12	4 44
14	M	52	18	11 38
20	13	69		
July 2	M	52		
Sept. 7	9	50		
18	12	26		
Oct. 6	8	51		
Averages	10	39	9	43

TABLE I

FUGITIVE DUST EMISSIONS INVENTORY - COLSTRIP (1976)
 0-1 MILE RADIAL DISTANCE FROM HI-VOL SITE #3

Appendix to MPC comments.

<u>SOURCE</u>	<u>EMISSION Δ/ COLSTRIP/OUTSIDE TONS PER YEAR</u>	<u>CONTROL OPTION</u>	<u>CONTROL EFFICIENCY %</u>	<u>REDUCTION Δ/ COLSTRIP/OUTSIDE TONS PER YEAR</u>
PAVED ROADS	19/24	VACUUM SWEEPING	75	14
UNPAVED ROADS	302/96	REGULAR WATERING	37-43	133
BARE AREA WIND EROSION	180/2184	VEGETATE RANGE GRASSES	80	144/1747

TOTAL REDUCTION TONS PER YEAR - 2038



Department of Energy
 Bonneville Power Administration
 P.O. Box 3621
 Portland, Oregon 97208

OFFICE OF THE ADMINISTRATOR

November 29, 1977

In reply refer to: AJ

Mr. Michael Roach
 Chief
 Air Quality Bureau
 Environmental Sciences Division
 Department of Health &
 Environmental Sciences
 Cogswell Building
 Helena, Montana 59601



Dear Mr. Roach:

Per your request we have reviewed the Addendum to the Department of Natural Resources & Conservation's Colstrip Units 3 & 4 Environmental Impact Statement and offer the following comments for your consideration.

1. The State should assure that the design of Units 3 & 4 does not repeat the vibration problem adversely affecting the emission monitoring equipment on Units 1 & 2.
2. The amount of particulate generated by many of the particulate sources (construction activities, mining, dusty roads and parking lots, wind erosion, etc.) currently resulting in violations of particulate standards, depends on wind, weather, traffic conditions, intensity of activity and other factors. These emissions are also fugitive, making them difficult to measure or estimate. Thus, it may be difficult to determine what specific measures may best be used to obtain the needed offset reduction (2537.6 tons/year) in particulate emissions.

Reference Response #6.

We appreciate the opportunity to review and comment on this statement.

Sincerely yours,

E. Willard
 Assistant to the Administrator -
 Interagency Relations

RECEIVED
 NOV 30 1977
 AIR QUALITY BUREAU



STATE OF MONTANA
ENVIRONMENTAL QUALITY CONTROL COUNCIL
 CAPITOL STATION
 Helena, Montana 59601

Terrence D. Carmody, Executive Director

SENATE MEMBERS
 Tony Murphy, Chairman
 Frank Dunkle
 Joe R. Roberts
 George F. Haskie

HOUSE MEMBERS
 Verner L. Benelsen
 Mike Meloy
 Dennis F. Naehe
 Arthur H. Sheldon

APPOINTED MEMBERS
 G.W. Deschamps
 Charles Doherty
 Rich D. Klingler
 William D. Spicker

GOV. THOMAS L. RULKE or
 Designated Representative:
 Lt. Gov. Ted Schwinden

October 27, 1977

Dr. Arthur C. Knight
 Director
 Department of Health and
 Environmental Sciences
 Helena, Montana

Attention: Mr. Michael Roach, Chief
 Air Quality Bureau



Dear Dr. Knight:

This will acknowledge receipt of the Addendum to the Department of Natural Resources & Conservation's Colstrip Units 3 & 4 environmental impact statement.

We appreciate the opportunity to review the above document and at this time we have no comment to offer.

Thank you for complying with the Montana Environmental Policy Act.

Sincerely,

Terrence D. Carmody
 TERRENCE D. CARMODY
 Executive Director

TDC/mb

REC'D
 AIR QUALITY BUREAU
 DNF. TEMP. ROOM

IV. NO EIS ADDENDUM REVISION

Based on substantive comments received from persons and organizations during the 30-day review period, the DHES has decided not to revise the addendum.

The DHES intends to conditionally approve the permit; however, based on the public comments, it will exercise its option to add and revise certain conditions. The conditions will be:

Condition A - Ambient air SO₂ concentrations will be as follows:

1. 0.02 ppm, maximum annual average.
2. 0.10 ppm, 24-hour average, not to be exceeded over 1% of the days in any three month period.
3. 0.025 ppm not to be exceeded for more than one hour in any four consecutive days.

Additionally, all other ambient standards will apply.

Condition B - Emission offsets shall be 2038 T/yr.

Condition C - To further clarify and resolve BHES Condition No. 1, the consortium will conduct a pyrite sulfur study on Colstrip Units 1 & 2. The study will begin on or before March 1, 1978, and run for no less than one year and no longer than two years. Details are to be worked out between the DHES and the utilities' representative, MPC.

Condition D - Limitations on SO₂ emissions shall reflect the levels of control demonstrated by Colstrip Units 1 & 2. This level shall be 0.61 lbs. of SO₂ per million BTU's fired. The emissions limitation for particulate matter shall be 0.05 lbs. of particulate matter per million BTU's fired. Nitrogen oxide (NO_x) emissions limitations shall be the same as those specified under the present NSPS. Emission limitations shall apply except during times of startup, shutdown, or malfunction. In the event the "worst case coal" design criteria for sulfur are exceeded, the emission limits, as noted above, shall not apply. Exceeding the design criteria limits for sulfur may trigger Condition G.

Condition E - The telescopic spout above the coal storage pile shall be operated in such a manner to reduce the distance coal must drop to the pile. In addition, coal suppression techniques shall be used in all other areas to reduce blowing coal dust at the plant site such as requiring the use of berms, windbreaks, and application of dust palliatives. These conditions will be fully detailed in an operating permit which will be issued prior to beginning plant operations.

Condition F - MPC shall submit a detailed emission monitoring program for DHES approval one year before Units 3 & 4 commence operation. The monitoring

program shall include SO₂ monitors at both the inlet and outlet of all scrubbers in addition to the required stack monitors. All monitors shall be certified according to those procedures outlined in the October 6, 1975, Federal Register and any subsequent amendments to those procedures which may be promulgated between permit issuance and plant operation.

Condition G - A contingency plan for coal blending shall be developed by the consortium and presented to the DHES one year prior to the actual operation of Colstrip Units 3 & 4. The plan will not be implemented unless DHES has evidence that the 1% sulfur level is being exceeded. An interpretation of what the one percent sulfur coal means is explained in the DHES June 27, 1977, report to the BHES (EIS Addendum, October 25, 1977, Appendix K).



W. E.
THE MONTANA POWER COMPANY
GENERAL OFFICES: 40 EAST BROADWAY, BUTTE, MONTANA 59701 • TELEPHONE 406 / 723-5421

November 7, 1977

Legal Division
Department of Health and
Environmental Sciences
1400 Eleventh Avenue
Helena, Montana 59601

Attn: Sandra R. Muckleston

Re: Colstrip 3 and 4.

Dear Ms. Muckleston:

In your letter to Mr. John Ross of October 25, 1977, you request that we withdraw from consideration our operating permit application and refile the same in 1980. We have considered your request and by this letter accede to your recommendation upon the grounds that we will not be prejudiced in refileing the application for an operating permit at a later date.

Thank you very much.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'John L. Peterson', is written over the typed name.

John L. Peterson

John W. Ross

William H. Bellingham

JLP/pr

