

STATE OF MONTANA
AIR QUALITY CONTROL
IMPLEMENTATION PLAN

Subject: Yellowstone County
Air Pollution
Control Program

BEFORE THE BOARD OF ENVIRONMENTAL REVIEW
OF THE STATE OF MONTANA

In the Matter of the Application
of the Department of Health and
Environmental Sciences for Revision
of the Montana State Air Quality
Control Implementation Plan Relating
to Control of Sulfur Dioxide Emissions
in the Billings/Laurel Area, Affecting
the Following Industries: Cenex, Inc.
(Laurel); Conoco, Inc.; Exxon Company,
USA; Montana Power Company, (J.E.
Corette and F. Bird Plants); Montana
Sulphur & Chemical Company; The
Western Sugar Company; and Yellowstone
Energy Limited Partnership.

STIPULATION OF
DEPARTMENT AND
EXXON

The Department of Environmental Quality ("Department"), and Exxon Company, U.S.A. ("Exxon"), hereby stipulate to the following paragraphs 1-22, including Exhibit A and Attachments, in regard to the above-captioned matter and present the same for consideration and adoption by the Board of Environmental Review ("Board").

Except for the parties' Stipulation of February 2, 1996, which is ratified in Paragraph 1, this Stipulation nullifies and supersedes all Stipulations which were executed by Exxon and the Department in response to the EPA SIP call letter of March 4, 1993.

~~1. A contested case was initiated on May 19, 1995 by the Board of Health and Environmental Sciences (predecessor to the Board of Environmental Review) at the request of MSCC to hear MSCC's objections to the Department's proposed sulfur dioxide control plan for MSCC. On October 6, 1995, the Board granted petitions to intervene and postpone hearing filed by Exxon, USA (Exxon) and Yellowstone Energy Limited Partnership (YELP). At the request of the intervenors, the contested case hearing was postponed until February 1, 1996. On or about December 26, 1995, YELP, MSCC, and the Department signed a negotiated stipulation for the withdrawal of YELP from the contested case.~~

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1 ~~On February 2, 1996, the Department, MSCC, and Exxon entered into a Stipulation~~
2 ~~which deferred the contested case hearing and established agreed procedures for~~
3 ~~developing a sulfur dioxide control plan for MSCC and amending the current sulfur~~
4 ~~dioxide control plan for Exxon. Exxon entered the February 2, 1996 Stipulation and enters~~
5 ~~this Stipulation, in part, to preserve Exxon's rights in the apportionment of the airshed~~
6 ~~resulting from the present SIP revision, and to assist the Department in obtaining a~~
7 ~~determination that the Billings/Laurel SIP is adequate to attain and maintain national~~
8 ~~ambient standards. Exxon reserves all issues and objections for all purposes except this~~
9 ~~settlement and the emission control strategy and rights arising from this settlement. The~~
10 ~~February 2, 1996 Stipulation is hereby ratified and incorporated herein.~~

11 2. This Stipulation, together with Exhibit A and Attachments, contains the
12 sulfur dioxide control plan for Exxon that has been developed in accordance with the
13 procedures of the February 2, 1996 Stipulation. The Department has reviewed and
14 approved a fluid modeling demonstration of good engineering practice (GEP) stack height
15 for the FCC CO Boiler stack, performed by Colorado State University, and has determined
16 that such approved fluid modeling demonstrated that a height of 76.7 meters is justified
17 and creditable as good engineering practice height for that stack in accordance with the
18 requirements of 40 CFR Part 51, Subpart F, Section 51.100, including specifically
19 paragraphs (ii), (jj), and (kk)(2) thereof, GEP guidelines, and the corresponding Montana
20 requirements governing GEP. The Department has determined and agrees, for purposes of
21 this Stipulation, Exhibit A, and Attachments, that Exxon shall receive credit for such
22 height in the setting of emission limitations. The Department has further determined that
23 the recognition of an emission limitation for the FCC CO Boiler Stack that is based on the
24 Fresh Feed Rate to the FCC Reactor as contemplated and approved by the parties in this
25 Stipulation is not a prohibited or unlawful dispersion technique for Exxon and the
26 Department agrees that Exxon is entitled to and shall receive emission limitation credit
27 recognizing such technique.

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1 3. On April 30, 1971, the United States Environmental Protection Agency
2 ("EPA") promulgated national ambient air quality standards ("NAAQS") for Sulfur Oxides
3 (measured as sulfur dioxide "SO₂"). The primary annual standard is 80 micrograms per
4 cubic meter (annual arithmetic mean) or 0.03 parts per million (PPM); the primary 24-hour
5 standard is 365 micrograms per cubic meter (24-hour maximum concentration) or 0.14
6 parts per million (PPM), not to be exceeded more than once per year. A secondary
7 standard for SO₂ was also promulgated by EPA. The secondary standard is 1300
8 micrograms per cubic meter (maximum 3-hour concentration) or 0.5 PPM of SO₂ not to be
9 exceeded more than once per year. These standards were promulgated by EPA pursuant to
10 Section 109 of the Federal Clean Air Act, 42 U.S.C. 7401, as amended by the Clean Air
11 Act Amendments of 1990 ("Act").

12 4. Section 110 of the Act requires each state to submit an implementation plan
13 for the control of each air pollutant for which a national ambient air quality standard has
14 been promulgated. Since a national standard has been promulgated for sulfur oxides, the
15 State of Montana is required to submit to EPA an implementation plan for SO₂.

16 5. In April, 1979, the Department submitted an addendum to the State
17 Implementation Plan for the Billings/Laurel area designed to achieve compliance with the
18 NAAQS for SO₂ (hereafter "Billings/Laurel Plan"). EPA approved the Billings/Laurel
19 Plan in September, 1979.

20 6. In a March 4, 1993, letter to the Governor of Montana, EPA stated that it
21 had determined the Billings/Laurel Plan to be substantially inadequate to attain and
22 maintain the SO₂ NAAQS and EPA stated that the Plan must be revised. The letter called
23 for a SIP revision for the Billings/Laurel area to assure attainment and maintenance of the
24 SO₂ NAAQS.

25 7. The EPA letter of March 4, 1993, established September 4, 1994, as the
26 deadline to submit to EPA a revised or new SO₂ plan for the Billings/Laurel area.

27 8. Utilizing a dispersion modeling analysis, Exxon and the Department have

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1 developed an emission control strategy that, together with similar control strategies for
2 other Billings/Laurel industries, is intended to assure attainment and maintenance of the
3 primary and secondary SO₂ NAAQS. Exxon's acceptance of this Stipulation and of the
4 assumptions and results of the dispersion modeling analysis conducted in this case is for
5 the sole and exclusive purpose of implementing the SO₂ emission control strategy
6 contained in this Stipulation, Exhibit A, and Attachments. In the event of future revisions
7 to the SO₂ emission control strategy contained in this Stipulation, Exhibit A, and
8 Attachments, Exxon does not waive and shall not be precluded from raising any objections
9 it may have including but not limited to those pertaining to the dispersion modeling
10 analysis.

11 9. The purpose of this Stipulation and the emission limitations and other
12 limitations contained in Exhibit A and Attachments is to establish an emission control
13 strategy for Exxon which, together with similar control strategies for the other
14 Billings/Laurel industries, will assure attainment and maintenance of the primary and
15 secondary SO₂ NAAQS. The Stipulation, Exhibit A, and Attachments do not address
16 attainment or maintenance of the Montana Ambient Air Quality Standards (MAAQS).

17 10. Exhibit A, which is attached to this Stipulation and incorporated herein by
18 reference, contains emission limitations and other conditions, including but not limited to:
19 methods for determining compliance with emission limitations, requirements by which
20 such emission limitations are made quantifiable and enforceable by the Department, and
21 facility modification requirements. Exxon shall comply with the terms of this Stipulation,
22 the emission limitations and other conditions set forth in Exhibit A and Attachments.

23 11. The following Attachments are attached to Exhibit A and are incorporated
24 therein and in this Stipulation by reference:

- 25 Attachment 1: Performance Specifications for Stack Flow Rate Monitors.
- 26 Attachment 2: Analytical Methods for Analyzing Sour Water Stripper
- 27 Overheads for Hydrogen Sulfide and Precision and Accuracy Methods for

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1 the Sour Water Stripper Flow Meter.

2 12. Upon written certification by the Department that an Attachment has been
3 revised in accordance with the requirements of Exhibit A, the revision shall be deemed
4 incorporated in Exhibit A and this Stipulation by reference, and shall be enforceable from
5 the date of the Department certification.

6 13. Disputes between the parties, during the development of a revised
7 Attachment, as to whether a draft revision is in accordance with the requirements of
8 Exhibit A must be submitted to the Board prior to judicial review of the dispute. The
9 Board will exercise reasonable diligence in rendering a determination on the disputed
10 matter. This paragraph shall not be construed to preclude the Department from directly
11 seeking judicial enforcement of final Attachments or of any other provision of this
12 Stipulation or Exhibit A.

13 14. For the exclusive purpose of implementing the sulfur dioxide emission
14 control strategy contained in this Stipulation, Exhibit A, and Attachments, ARM 17.8.322
15 shall be interpreted to mean that no person shall burn solid, liquid, or gaseous fuels such
16 that the aggregate sulfur content of all fuels burned within a plant during any day exceeds
17 one pound of sulfur per million BTU fired. The rule shall be interpreted to allow for a
18 daily deviation of 0.1 pound of sulfur per million BTU fired. The rule shall be interpreted
19 to allow the blending of all fuels burned in a plant during a given time period in
20 determining the aggregate sulfur content for purposes of the rule, and it shall not be
21 construed to require blending or physical mixing of fuels at any given furnace or heater
22 within the plant complex.

23 15. The Stipulation, Exhibit A, and Attachments shall become effective
24 immediately upon the issuance of an order by the Board in this proceeding, except where
25 another effective date is specified in Exhibit A or Attachments.

26 16. It is the intent of the parties that this Stipulation, Exhibit A, and
27 Attachments, after adoption and incorporation by Board order, shall be submitted to the

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1 Environmental Protection Agency for review and approval as the Exxon control strategy
2 for the attainment and maintenance of the primary and secondary SO₂ NAAQS in
3 Yellowstone County, as part of the State Implementation Plan. The Stipulation
4 Requirements shall supersede any less stringent corresponding conditions pertaining to SO₂
5 sources in any existing permit currently issued to Exxon.

6 17. The Stipulation, Exhibit A, and Attachments are intended to assure
7 attainment and maintenance of the primary and secondary NAAQS for SO₂. The
8 Stipulation, Exhibit A, and Attachments are not intended to address attainment or
9 maintenance of the Montana Ambient Air Quality Standards (MAAQS).

10 18. This Stipulation, Exhibit A, or Attachments may be subject to modification
11 upon the occurrence of certain modifying conditions. Such modifying conditions include,
12 but are not limited to, the following:

- 13 (a) an EPA determination that the submitted plan is incomplete;
- 14 (b) an EPA disapproval, either partial or complete, of the submitted plan;
- 15 (c) an EPA conditional approval of the submitted plan;
- 16 (d) a determination by EPA that this plan has failed to achieve or maintain the
17 NAAQS; or
- 18 (e) a demonstration by Exxon, utilizing Department and EPA approved dispersion
19 modeling techniques (provided for in Appendix W of 40 CFR Part 51. These approved
20 dispersion modeling techniques include, but are not limited to CTDMplus and ISC.), that
21 the NAAQS can be achieved and maintained by implementing an alternative control plan.

22 Such alternative control plans, include but are not limited to:

- 23 (i) plans based upon a single emission limitation for several sources or stacks
24 (emission bubbling or trading);
- 25 (ii) a stack height of 65 meters; or a taller stack height that Exxon demonstrates,
26 through a fluid model or field study approved by the Department and EPA, is Good
27 Engineering Practice;

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1 (iii) an emission limitation that varies in accordance with the buoyancy flux of the
2 plume; or

3 (iv) the realignment of emission limitations among the emission points within a
4 facility

5 19. Procedures for modification of this Stipulation, Exhibit A, and Attachments
6 shall be as follows:

7 Board Approval

8 a. Stipulation and Exhibit. All modifications of the text of this Stipulation and
9 Exhibit A shall require issuance of a revised Board order. Minor and clerical corrections
10 may be made to this Stipulation and Exhibit A by mutual agreement of the parties, without
11 the necessity for a revised Board order.

12 b. Attachments. As provided in Paragraph 12, upon written certification by
13 the Department that an Attachment has been revised in accordance with the requirements
14 of Exhibit A, the revision shall be deemed incorporated in Exhibit A and this Stipulation
15 by reference, without the necessity for a revised Board order.

16 c. Implementation Approvals. Where Exhibit A or an Attachment authorizes
17 the Department and EPA to approve an alternative requirement or methodology, the
18 implementation of such approval shall not require issuance of a revised Board order.

19 EPA Approval for SIP Changes

20 d. Stipulation, Exhibit, and Attachments. Following EPA approval pursuant to
21 paragraph 16, all modifications of the text of this Stipulation, Exhibit A, and Attachments
22 shall require the approval of EPA under either subparagraph 19(f) or (g). To the extent
23 allowed under federal requirements, minor and clerical corrections may be made by mutual
24 agreement of the parties, without the necessity for formal approval by EPA.

25 e. Implementation Approvals. Where Exhibit A or an Attachment authorizes
26 the Department and EPA to approve an alternative requirement or methodology, such EPA
27 approval shall be obtained under either subparagraph 19(f) or (g).

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1 f. Title I Procedures. Until the issuance of a Title V operating permit for
2 Exxon and the adoption of the enabling state administrative rule described in paragraph
3 19(g), all nonclerical modifications to the text of this Stipulation, Exhibit A, or
4 Attachments described in paragraph 19(d), and all implementation approvals described in
5 subparagraph 19(e), shall be submitted to EPA under Title I of the federal Clean Air Act.
6 The SIP revision procedures contained in 40 CFR Part 51 Subpart F shall not apply to
7 modifications and approvals under subparagraphs 19(d) and (e) that constitute "minor
8 modifications" as determined pursuant to subparagraph 19(h).

9 g. Title V Procedures. Title V operating permit revision procedures may be
10 used to modify the SIP to include textual modifications under subparagraph 19(d) and
11 implementation approvals under subparagraph 19(e), provided that the following two
12 conditions are met:

13 (i) Exxon has been issued a Title V operating permit and the State has adopted
14 an enabling administrative rule that complies with the federal requirements for
15 modification of SIP requirements through the Title V process; and

16 (ii) the particular modification of the plan or implementation approval pertains
17 to testing, monitoring, recordkeeping, calculation, reporting, or operating requirements or
18 methodologies.

19 h. Minor Modifications. When a modification or approval under subparagraph
20 19(d) or (e) is proposed the Department shall consult with EPA to determine whether the
21 modification or approval is a "major" or "minor" modification. Such determinations shall
22 be made within 45 days from the submittal of the proposed modification or approval to
23 EPA.

24 20. Exxon does not waive and expressly reserves its right to contest any Board
25 order or Department or federal action which, without the written consent of Exxon,
26 modifies this stipulation, Exhibit A, or Attachments.

27 21. Accordingly, the parties agree that the Board shall issue an order adopting

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1 the terms of this Stipulation, including the emission limitations and other conditions
2 contained in Exhibit A and Attachments. Except where another effective date is provided
3 in Exhibit A or Attachments, upon adoption in a Board Order, the Stipulation, Exhibit A,
4 and Attachments shall be enforceable by the Department.

5 ~~22. Notwithstanding any other provision of this Stipulation, Exxon's and the~~
6 ~~Department's consent to be bound by the terms of this Stipulation is conditioned upon the~~
7 ~~adoption of SO₂ emission control strategies, for all the affected industries in this matter,~~
8 ~~which are in their common terms substantially similar to one another. This condition of~~
9 ~~substantial similarity extends only to the initial control strategies, adopted by the Board or~~
10 ~~by the U.S. EPA as a Federal Implementation Plan, and which are adopted in response to~~
11 ~~the EPA letter of March 4, 1993 calling for revision of the Billings/Laurel SO₂ SIP. This~~
12 ~~condition of substantial similarity does not extend to subsequent revisions of such initial~~
13 ~~emissions control strategies, but does extend to and include any revisions of such emission~~
14 ~~control strategies resulting from any challenge or appeal of the initial adopted emissions~~
15 ~~control strategies. In the event that an initial control strategy is finally adopted by the~~
16 ~~Board or EPA, for any of the affected industries in this matter, which is not substantially~~
17 ~~similar in its common terms to this Stipulation or Exhibit A, either Exxon or the Depart-~~
18 ~~ment may, in a writing delivered to the other party and to the other affected industries in~~
19 ~~this matter within 60 days of receiving written notice of the adoption, withdraw its consent~~
20 ~~to this Stipulation.~~

22 Exxon Company, U.S.A.

Montana Department of
Environmental Quality

24 By *Mark J. [Signature]*

24 By *Mark A. Simonich*
Mark Simonich
Director

26 Date 6-5-98

26 Date 6/7/98

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Approved as to form:

By *C. J. [Signature]*
Attorney

Date 6/3/98

Approved as to form:

By *James M. Madda*
Attorney

Date 6/9/98

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