

Iowa State Implementation Plan
Revision for SO₂ for Cedar Rapids, Iowa
May 1998

Appendix D

ADM Corn Processing SO₂ Emissions Control Plan

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The conditions and limitations listed below are taken from five permits issued to ADM Corn Processing by the Linn County Health Department. The enforceable limits in these permit conditions were issued to prevent any violation of the NAAQS for SO₂. Any future changes to these sources, which require a new authorization to install, will include a complete review of the proposed change's impacts on the SO₂ NAAQS.

The following conditions are incorporated into the revision of SO₂ SIP for Cedar Rapids, Iowa, to which this appendix is attached:

Natural Gas/Fuel Oil Fired Package Boilers #3, 4, 5:

1. SO₂ emissions from gas/oil-fired boilers 3, 4, and 5 shall be exhausted from 3 individual stacks, serving one boiler each, with a stack height of 48 feet (14.63 meters) above ground level.
2. SO₂ emissions from each boiler stack shall be limited to 9.0 lbs./hr.
3. The sulfur content of the oil burned in boilers 3, 4, and 5 shall be limited to no more than 0.05 percent by weight.
4. Fuel oil usage by boilers 3, 4, and 5 combined shall be limited to no more than 32,000,000 gallons per year, calculated on a 12 month rolling sum basis.

Fugitive SO₂ emissions from the Mill House and the Feed House shall be controlled by the installation of two wet scrubbers. The stack parameters, emission limits, operating conditions and compliance and reporting requirements shall be as follows:

Source SO21 - Mill House Packed Tower Scrubber:

1. Stack location shall be UTM 608751 meters East, 4642490 meters North.
2. Stack height shall be 50 feet (15.24 meters).
3. Stack gas temperature shall be 294 degrees K.
4. Stack exit diameter shall be 2.76 feet (0.84 meters).
5. Stack gas exit velocity shall be 15.24 meters/second.
6. SO₂ emissions shall be limited to 6.11 lb./hr.
7. Compliance shall be demonstrated by stack testing according to 40 CFR 60, Appendix A, reference method 6A or 6C within 60 days of reaching full production but no later than 180 days after startup. Stack test results shall be submitted within 30 days of the test to the Linn County Health Department, Air Quality Division, 501 13th Street N.W., Cedar Rapids, Iowa 52405-3700.
8. Continued compliance shall be demonstrated by daily monitoring and record keeping of scrubber pressure drop readings and water flow to the scrubber. The aforementioned records shall be stored on site for a period of 3 years and made available at all times for viewing by air pollution control personnel.

Source SO₂ – Feed House Packed Tower Scrubber:

1. Stack location shall be UTM 608894 meters East, 4642515 meters North.
2. Stack height shall be 80 feet (24.38 meters).
3. Stack gas temperature shall be 294 degrees K.
4. Stack exit diameter shall be 2.76 feet (0.84 meters).
5. Stack gas exit velocity shall be 15.24 meters/second.
6. SO₂ emissions shall be limited to 6.11 lb./hr.
7. Compliance shall be demonstrated by stack testing according to 40 CFR 60, Appendix A, reference method 6A or 6C within 60 days of reaching full production but no later than 180 days after startup. Stack test results shall be submitted within 30 days of the test to the Linn County Health Department, Air Quality Division, 501 13th Street N.W., Cedar Rapids, Iowa 52405-3700.
8. Continued compliance shall be demonstrated by daily monitoring and record keeping of scrubber pressure drop readings and water flow to the scrubber. The aforementioned records shall be stored on site for a period of 3 years and made available at all times for viewing by air pollution control personnel.