

STATE OF MISSOURI

PERMIT BOOK



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 032010-014 Project Number: 2010-02-022

Parent Company: Hassard Elevator Company

Parent Company Address: 11523 Highway J, Monroe City, MO 63456

Installation Name: Hassard Elevator Company

Installation Number: 173-0030

Installation Address: 11523 Highway J, Monroe City, MO 63456

Location Information: Ralls County, S10, T56N, R7W

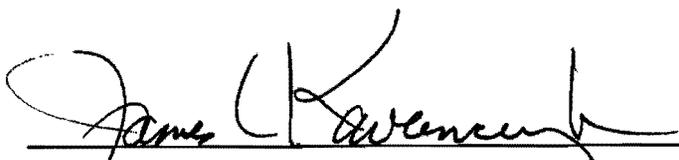
Application for Authority to Construct was made for:

The addition of a new grain receiving pit, storage bins, and associated equipment. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

APR - 2 2010
EFFECTIVE DATE


DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Departments' Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

Hassard Elevator Company
Ralls County, S10, T56N, R7W

1. **Superseding Condition**
The conditions of this permit supersede all special conditions found in all previously issued construction permits issued by the Air Pollution Control Program.
2. **Emission Limitation**
 - A. Hassard Elevator Company shall emit less than 15.0 tons of particulate matter less than ten (10) microns in diameter (PM₁₀) in any consecutive 12-month period from the entire installation. The entire installation comprises the emission units listed in Appendix A.
 - B. Attachment A or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Condition 2.A.
3. **Haul Road Watering**
Hassard Elevator Company shall water haul roads whenever conditions exist which would cause visible fugitive emissions to enter the ambient air beyond the property boundary.
4. **Record Keeping and Reporting Requirements**
 - A. Hassard Elevator Company shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.
 - B. Hassard Elevator Company shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which any record required by this permit show an exceedance of a limitation imposed by this permit.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2010-02-022
Installation ID Number: 173-0030
Permit Number:

Hassard Elevator Company
11523 Highway J
Monroe City, MO 63456

Complete: February 5, 2010

Parent Company:
Hassard Elevator Company
11523 Highway J
Monroe City, MO 63456

Ralls County, S10, T56N, R7W

REVIEW SUMMARY

- Hassard Elevator Company has applied for the authority to construct a 10,000 bushel per hour receiving pit, two 348,000 bushel storage bins, a 9,000 bushel surge bin, and associated equipment.
- Hazardous Air Pollutant (HAP) emissions are not expected from the proposed equipment.
- None of the New Source Performance Standards (NSPS) apply to the installation. 40 CFR 60 Subpart DD, *Standards of Performance for Grain Elevators*, does not apply to the installation because the combined new and existing permanent storage capacity will be 2,417,000 bushels which is less than the 2.5 million bushel applicability threshold for the rule.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) apply to this installation. None of the currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- No air pollution control equipment is being used in association with the new equipment.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM₁₀ are conditioned below de minimis levels.
- This installation is located in Ralls County, an attainment area for all criteria pollutants.
- This installation is not on the List of Named Installations found in 10 CSR 10-

6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability.

- Ambient air quality modeling was not performed since potential emissions of the application are conditioned below de minimis levels.
- Emissions testing is not required for the equipment.
- No Operating Permit is required for this installation.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Hassard Elevator Company (Hassard Elevator) is an existing large, modern country grain elevator located in Monroe City, Missouri in Ralls County. Some of the equipment located at Hassard Elevator was originally constructed prior to the applicability date for the construction permits rule, 10 CSR 10-6.060 *Construction Permits Required*. However, the site has since received several construction permits from the Air Pollution Control Program, and they are summarized in the table below.

Table 1: Permit History

Permit Number	Description
1194-018	Installation of the middle receiving pit and storage bins
0898-002	Installation of a batch column dryer and storage bins
0599-001	Installation of the north receiving pit and storage bins
102007-004	Installation of a continuous column dryer

In order to avoid refined modeling to demonstrate compliance with the Increment Standards and National Ambient Air Quality Standards (NAAQS), the facility has requested a voluntary installation-wide limit to emit less than the de minimis level for PM₁₀. Therefore, the existing potential emissions have been re-calculated for this project.

Hassard Elevator currently has three receiving pits, referred to as the South (EU02), Middle (EU03), and North (EU04) receiving pits. Each receiving pit is approximately the same distance from the entrance to the facility, and the round trip distances for the gravel haul roads (EU01) are approximately 0.19 mile each. Each receiving pit is equipped with several large storage bins. The South receiving pit has 10 bins with a total storage capacity of 292,000 bushels, the Middle receiving pit has 7 storage bins with a total storage capacity of 493,000 bushels, and the North receiving pit has 7 storage bins with a total storage capacity of 927,000 bushels.

Hassard Elevator also has two propane-fired column dryers that are used to dry grain that is too wet to be immediately stored. There is a 9 million Btu per hour batch column dryer (EU07) with a maximum design rate of 240 bushels per hour, and there is a 10.5

million Btu per hour continuous column dryer (EU08) rated at 1100 bushels per hour. The facility has the capability to load-out grain only by truck (EU09).

The throughput of the existing grain elevator is limited by the receiving capacity of the facility. The South and Middle receiving pits (EU02 and EU03) each have a maximum design rate of 4000 bushels per hour and the North receiving pit (EU04) has a maximum design rate of 7000 bushels per hour. Appendix A contains a complete summary of the existing emission units.

PROJECT DESCRIPTION

Hassard Elevator proposes to install a new receiving pit and additional storage capacity on the east side of their property (East Annex). Trucks will need to utilize the existing haul road (EU01) and a new gravel haul road (EU10) in order to access the East Annex.

The new and existing haul road will have a combined roundtrip distance of 0.26 miles. The throughput for the East Annex will be limited by the capacity of the receiving pit (EU11) which is rated at 10,000 bushels per hour. Hassard Elevator initially plans to construct a 9,000 bushel surge bin and a 348,000 bushel storage bin for the East Annex. However, the facility also intends to install another 348,000 bushel storage bin at a later time for a total East Annex storage capacity of 705,000 bushels. As the throughput for the East Annex is limited by the receiving pit, the installation of an additional storage bin at a later time will not increase their potential emissions, and a new construction permit will not be required for this activity. Appendix A contains a complete summary of the emission units proposed for this project.

EMISSIONS/CONTROLS EVALUATION

The emission factors used in the analysis of the grain elevator processes were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 9.9.1 *Grain Elevators & Processes* (May 2003). A conservative conversion ratio of 60 pounds per bushel was used to convert the maximum throughput rates into tons grain per hour. Although the facility estimates that nearly 80% of the grain is received by hopper bottom truck, which has a much lower emission factor than straight truck receiving, potential emissions were calculated based on the worst case assumption that 100% of the grain is received by straight truck.

The emission factors used in the analysis of the haul road were obtained from AP-42, Section 13.2.2 *Unpaved Roads* (November 2006). A 50% control efficiency was allowed for the haul roads, as the facility is required to practice undocumented haul road watering. The emission factors used in the analysis of the existing grain dryers were obtained from AP-42, Section 1.5 *Liquified Petroleum Gas Combustion* (July 2008). Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year). The following table provides an emissions summary for this project.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions ^[1]	Existing Actual Emissions (2008 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM ₁₀	15.0	270.73	3.56	175.56	<15.0
SO _x	40.0	0.09	N/D	N/A	N/A
NO _x	40.0	12.13	N/D	N/A	N/A
VOC	40.0	0.75	N/D	N/A	N/A
CO	100.0	7.00	N/D	N/A	N/A
HAPs	10.0/25.0	N/D	N/D	N/D	N/D

N/A = Not Applicable; N/D = Not Determined

¹The existing potential emissions were calculated for this project and do not consider limits imposed by previously issued construction permits.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM₁₀ are conditioned below de minimis levels.

APPLICABLE REQUIREMENTS

Hassard Elevator Company shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required June 1 for the previous year's emissions.
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-3.090

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Kathi Jantz
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated February 4, 2010, received February 5, 2010, designating Hassard Elevator Company as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Northeast Regional Office Site Survey, dated February 19, 2010.

Appendix A: Installation Emission Unit Summary

Hassard Elevator Company
 Ralls County, S10, T56N, R7W
 Project Number: 2010-02-022
 Installation Number: 173-0030

Installation	Emission Unit ID	Description	Bottlenecked Maximum Hourly Design Rate ^[1]	Control
Existing	EU01	Haul Road	0.19 mile (round trip)	50% (undocumented watering)
Existing	EU02	South Receiving Pit	120 tons/hr	None
Existing	EU03	Middle Receiving Pit	120 tons/hr	None
Existing	EU04	North Receiving Pit	210 tons/hr	None
Existing	EU05	Internal Handling	450 tons/hr	None
Existing	EU06	Storage	450 tons/hr	None
Existing	EU07	Batch Column Dryer	7.2 tons/hr 9 mmBtu/hr	None
Existing	EU08	Continuous Column Dryer	33 tons/hr 10.5 mmBtu/hr	None
Existing	EU09	Truck Load-Out	450 tons/hr	None
New	EU10	Haul Road	0.258 mile (round trip)	50% (undocumented watering)
New	EU11	East Annex Receiving Pit	300 tons/hr	None
New	EU12	Storage	300 tons/hr	None
New	EU13	Internal Handling	300 tons/hr	None
New	EU14	Truck Load-Out	300 tons/hr	None

¹The receiving pits are considered the bottleneck for the entire installation and therefore limit the throughput for all other emission units. A 60 pound per bushel conversion factor was used to convert the maximum design rates from bushels per hour to tons grain per hour.

Mr. Donald Benson Jr.
Plant Manager
Hassard Elevator Company
11523 Highway J
Monroe City, MO 63456

RE: New Source Review Permit - Project Number: 2010-02-022

Dear Mr. Benson:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions and your new source review permit application. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact Kathi Jantz, at the Departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:kjl

Enclosures

c: Northeast Regional Office
PAMS File: 2010-02-022

Permit Number: