

LIFETIME GENERAL OPERATING PERMIT FOR GRAIN ELEVATOR

PERMITTEE

Applicant Name

Attn: \_\_\_\_\_

Street Address

City, State Zip Code

Application No.: \_\_\_\_\_

I.D. No.: \_\_\_\_\_

Applicant's Designation: \_\_\_\_\_

Date Received: \_\_\_\_\_, 200\_

Subject: \_\_\_\_\_

Date Issued: \_\_\_\_\_, 200\_

Expiration Date: See Condition 1.

Location: Street Address, City, County, Zip Code

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of:

Small country grain elevator as specified below in Findings.

Findings

1. This permit is applicable to a small country grain elevator that meets all the following criteria:
  - a. The elevator is located outside a Major Population Area as defined in 35 Ill. Adm. Code 211.3610 (See Attachment B);
  - b. The elevator is not subject to 35 Ill. Adm. Code 212.462 requirements since its operation satisfies the exemptions in Section 9(f) of the Illinois Environmental Protection Act (Act);
  - c. The elevator receives no more than 7,000,000 bushels of grain per year;
  - d. The permanent storage capacity of the elevator as defined at 40 CFR 60.301 is equal to or less than 2,500,000 bushels;
  - e. Grain drying does not exceed 2,100,000 bushels per year;
  - f. Grain cleaning does not exceed 700,000 bushels per year;
  - g. Grain is only received and shipped by road or rail vehicles, not by water; and
  - h. A petroleum bulk plant (SIC 5171), animal feed plant (SIC 2048) or other plant or operation requiring a permit from the Illinois EPA is not associated with the elevator.
2. For the purposes of this permit, a small country grain elevator includes up to eight (8) dump pits, internal transfer (e.g., totally

enclosed headhouse, conveyors, legs, drags), grain storage (e.g., bins, buildings, silos, and any grain storage piles with permanent (non-portable) or portable grain-handling equipment), cleaning and separation, up to four (4) column grain dryers, and shipping/load-out.

- 3a. This permit imposes conditions on activities at a grain elevator to assure compliance with applicable requirements of 35 Ill. Adm. Code Part 212 Subparts B (Visible Emissions), K (Fugitive Particulate Matter), and S (Agriculture).
  - b. This permit does not excuse the Permittee from obtaining a Construction Permit and/or an Operating Permit for any additional emission units in excess of the maximum number of units specified in Finding 2 or for any modification or addition that will create an exceedance of any of the Criteria in Finding 1.
4. The Illinois EPA will only authorize operation pursuant to this permit if an application includes the following items:
- a. The location of and detailed description of the grain elevator.
  - b. A statement certifying that the grain elevator meets the criteria in Findings 1 and 2.
  - c. A request for authorization to operate pursuant to this general permit.
  - d. A statement that the grain elevator is, and will be, operated to comply with the applicable portions of 35 Ill. Adm. Code Part 212 Subparts B, K and S, and the Conditions of this permit.
  - e. A signed certification by the applicant that the information contained in the application is accurate.

Conditions

- 1a. This permit shall expire 180 days after the Illinois EPA sends a written request for the renewal of this permit.
  - b. This permit shall terminate if it is withdrawn or is superseded by a revised permit.
  - c. This permit allows the construction and operation of additional emission units of a small country grain elevator such that the maximum number of units identified in Finding 2 will not be exceeded and such that the construction and/or operation of the units will not cause an exceedance of any of the Criteria in Finding 1.
  - d. This permit does not exempt the Permittee from obtaining a Construction and/or Operating Permit for any additional emission units in excess of the maximum number of units in Finding 2 or for any modification or addition that would result in an exceedance of any of the Criteria in Finding 1, unless such emission units, operations, modifications or additions are exempt from permitting requirements pursuant to 35 IAC 201.146 and does not affect the source's status with respect to the applicability of Section 39.5 of the Illinois Environmental Protection Act (Act).
2. The grain elevator owner or operator must apply for a revised operating permit when any of the following situations occur:
    - a. Area is presently designated as a Major Population Area (MPA) or the municipality's boundaries are changed and now the area is designated as a MPA.
    - b. An increase in annual grain throughput to greater than 7,000,000 bushels;
    - c. A modification that will increase the emissions above the emission limits permitted herein;
    - d. A modification that will increase the permanent storage capacity to greater than 2,500,000 bushels;
    - e. A change in operations that will result in the source's noncompliance with conditions in the existing permit;
    - f. A change in ownership, company name, or address, so that the application or existing permit is not longer accurate; or
    - g. The grain elevator becomes subject to 35 Ill. Adm. Code 212.462 requirements pursuant to Section 9(f) of the Act.
  3. For purposes of fees pursuant to Section 9.6 of the Environmental Protection Act, annual emissions of specified air contaminants, i.e.,

particulate matter, carbon monoxide, nitrogen oxide, volatile organic material, and sulfur dioxide, shall not exceed 24.98 tons, which shall be the permitted emissions of these pollutants.

- 4a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity that is visible by an observer looking generally toward the Zenith (that is, looking at the sky directly overhead) from a point beyond the property line of the emission source, pursuant to 35 Ill. Adm. Code 212.301.
  - b. The Permittee shall implement and perform the required housekeeping practices identified in 35 Ill. Adm. Code 212.461(b)(1) through (b)(5) and maintain a housekeeping check list for the grain elevator pursuant to 35 Ill. Adm. Code 212.461(b)(6). This checklist shall contain the applicable housekeeping practices described in the attached "Minimum Recommendations for Housekeeping Practices for Grain Handling Facilities."
  - c. The Permittee shall operate the facility in such a way that the opacity does not exceed the limits specified in 35 Ill. Adm. Code 212.123.
- 5a.
    - i. Grain receiving in all dump pits shall be conducted in accordance with good operating practices to minimize particulate matter emissions.
    - ii. Each dump pit shall be inspected for proper operation while receiving is occurring, at least once each week (Monday through Sunday) when grain is received.
  - b.
    - i. Grain drying shall be conducted in a column dryer with enclosed grain inlet and outlet and perforations in the external sheeting not exceeding 0.094 inch, pursuant to 35 Ill. Adm. Code 212.463(a).
    - ii. Each such dryer shall be inspected for any leaks in enclosures and proper condition of the external sheeting, on at least an annual basis prior to the harvest season.
  - c.
    - i. Grain transfer within the elevator (internal transfer), and any cleaning shall be conducted without visible emissions to the atmosphere, pursuant to 35 Ill. Adm. Code 212.461(b).
    - ii. The grain elevator shall be inspected for presence of visible emissions from internal transfer and cleaning, while such activity is occurring, at least once each week when such activity is performed.
  - d.
    - i. Grain load-out shall be conducted with socks, sleeves or equivalent devices, extending to within at least 6 inches below the sides of the receiving vehicle except for topping off. Choke load-out may be performed as an equivalent method.

- ii. Grain load-out socks, sleeves and equivalent devices shall be inspected for proper operation while load-out is occurring, at least once each week when grain load-out is performed.
- 6a. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic inspections and maintenance on the equipment covered under this permit such that the equipment be kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated therein.
- b. Pollution control devices shall be in operation at all times when the associated emission unit(s) is in operation and emitting air contaminants.
- 7a. The amount of material handled by the elevator shall not exceed the following limits. Compliance with these annual limits shall be determined on a monthly basis from a running total of monthly data, that is, the total of the amount of material for the month and the preceding eleven months.
- i. The amount of grain received, that is, unloaded in the dump pit areas at the elevator, shall not exceed 7,000,000 bushels per year.
  - ii. The amount of grain dried shall not exceed 2,100,000 bushels per year.
  - iii. The amount of grain cleaned shall not exceed 700,000 bushels per year.
  - iv. The amount of grain shipped, that is, loaded into a vehicle in the load-out areas at the elevator, shall not exceed 7,000,000 bushels per year.
- b. Natural gas, liquefied petroleum gas or propane shall be the only fuels fired in grain dryers.
- 8a. The Permittee shall maintain records of the following items for the grain elevator:
- i. Records of housekeeping check lists completed by the elevator manager;
  - ii. Records for the inspections required by Condition 4(b), 5, and 6, with date, time and observations if such information is not incorporated in the housekeeping check list; and
  - iii. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.

- b. The Permittee shall maintain monthly records of the following items for the source:
  - i. Total grain received, bushels/month and bushels/year (running total of 12 months data);
  - ii. Grain dried, bushels/month and bushels/year (running total of 12 months data);
  - iii. Grain cleaned, bushels/month and bushels/year (running total of 12 months data);
  - iv. Grain shipped, bushels/month and bushels/year (running total of 12 months data); and
  - v. PM emissions (tons/month, tons/year) with supporting calculations.
- c. The Permittee shall maintain records for any deviation or exceedance from the requirements of this permit, as determined by the above records or by other means, with date, time, duration, description, corrective action, and measures to prevent future reoccurrences.
- d. These records shall be retained at a readily accessible location at the source for at least 3 years and shall be available for inspections and copying by the Illinois EPA upon request.
9. The Permittee shall maintain records of any repairs or maintenance to the grain elevator as related to emissions of particulate matter with date and description of activity.
10. If there is an exceedance of or deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois, and to the Illinois EPA Regional Office within 30 days after the exceedance/deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or deviation and efforts to reduce emissions and future occurrences.
11. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance Section (#40)  
P.O. Box 19276  
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the appropriate Illinois EPA Regional Office at the following address unless otherwise indicated:

Illinois Environmental Protection Illinois EPA  
Division of Air Pollution Control - Region 1  
9511 West Harrison  
Des Plaines, Illinois 60016

Illinois Environmental Protection Illinois EPA  
Division of Air Pollution Control - Region 2  
5415 North University  
Peoria, Illinois 61614

Illinois Environmental Protection Illinois EPA  
Division of Air Pollution Control - Region 3  
2009 Mall Street  
Collinsville, Illinois 62234

If you have any questions concerning this permit, please contact \_\_\_\_\_  
at 217/782-2113.

Edwin C. Bakowski, P.E.  
Acting Manager, Permit Section  
Division of Air Pollution Control

ECB:\_\_:psj

cc: Region \_\_

Attachment A - Emissions Summary

This attachment provides the Illinois EPA's evaluation of the maximum particulate matter emissions of a small country elevator operating in compliance with the requirements of this permit. For the purpose of this evaluation, the Illinois EPA used the annual operating scenario which results in maximum emissions. This is receiving 7,000,000 bushels of grain by existing dump pits without control measures and drying of only 2,100,000 bushels of grain. In addition, this scenario assumes drying is performed with a column dryer, which has a higher emission rate than a dryer equipped with a cyclone or filter. Actual emissions from a small country grain elevator should be less than predicted for this operating scenario to the extent that less grain is handled at an elevator, control measures are used for receiving grain, and other control measures are more effective than required by rule.

<u>Emission Source</u>	<u>Annual Throughput (Bushel*/Yr)</u>	<u>Emission Factors (Lb/Ton)</u>	<u>Emission Factors (Lb/Ton)</u>	<u>Emissions (Tons/Year)</u>	
		<u>PM</u>	<u>PM<sub>10</sub></u>	<u>PM</u>	<u>PM<sub>10</sub></u>
Dump Pits-Straight Truck**	3,500,000	0.18	0.059	8.82	2.89
Dump Pits-Hopper Truck/Rail**	3,500,000	0.035	0.0078	1.72	0.38
Grain Drying (Column Dryer)	2,100,000	0.22	0.055	6.47	1.62
Truck/Rail Loadout	7,000,000	0.086	0.029	4.21	1.42
Cleaning	700,000	0.075	0.019	0.74	0.19
Enclosed Internal Transfer	21,700,000	0.061	0.034	0.19	0.10
Storage Bin Vents	7,000,000	0.025	0.0063	<u>2.45</u>	<u>0.62</u>
			Totals	24.60	7.22

\* One bushel equals 56 pounds

\*\* The total amount of grain received and unloaded into the dump pit areas shall not exceed 7,000,000 bushels/year overall. While the above table shows a 3,500,000 bushels/year maximum from each of straight trucks and hopper trucks/rail, only straight trucks are limited to 3,500,000 bushels/year due to their higher emission rate. The amount received via hopper trucks/rail may include the entire 7,000,000 bushels, reduced by the amount actually received via straight trucks in a given year.

These emissions are based on AP-42 (Section 9.9.1-2003 update) emission factors based on 99% control efficiency for enclosed internal transfer via conveyors, drags, and legs, and 50% control efficiency for truck loadouts with socks.

Attachment B

**Section 211.3610 Major Population Area (MPA)**

"Major Population Area (MPA)" means areas of major population concentration in Illinois, as described below:

The area within the counties of Cook; Lake; DuPage; Will; the townships of Burton, Richmond, McHenry, Greenwood, Nunda, Door, Algonguin, Grafton and the municipality of Woodstock, plus a zone extending two miles beyond the boundary of said municipality located in McHenry County; the townships of Dundee, Rutland, Elgin, Plato, St. Charles, Campton, Geneva, Blackberry, Batavia, Sugar Creek and Aurora located in Kane County; and the municipalities of Kankakee, Bradley and Bourbonnais, plus a zone extending two miles beyond the boundaries of said municipalities in Kankakee County.

The area within the municipalities of Rockford and Loves Park, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Rock island, Moline, East Moline, Carbon Cliff, Milan, Oak Grove, Silvis, Hampton, Greenwood and Coal Valley, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Galesburg and East Galesburg, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Bartonville, Peoria and Peoria Heights, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Pekin, North Pekin, Marquette Heights, Creve Coeur and East Peoria, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Bloomington and Normal, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Champaign, Urbana and Savoy, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Decatur, Mt. Zion, Harristown and Forsyth, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Springfield, Leland Grove, Jerome, Southern View, Grandview, Sherman and Chatham, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the townships of Godfrey, Foster, Wood River, Fort Russell, Chouteau, Edwardsville, Venice, Nameoki, Alton, Granite City and Collinsville located in Madison County; and the townships of

Stites, Canteen, Centreville, Caseyville, St. Clair, Sugar Loaf and Stookey located in St. Clair County.

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