

Grain Elevator

This guide is intended for true minor sources only.

What is a True Minor Source?

Air pollution sources whose potential to emit (PTE) is less than the major source annual emission thresholds are considered minor sources. Potential to Emit (PTE) is defined at Section 39.5 of the Illinois Environmental Protection Act and is used to predict the release of air contaminants from an emission source operating at its maximum rate capacity, 24 hours per day, 365 days a year.

A true minor air pollution source is one that, even operating at its maximum capacity and continuously, cannot exceed the major source annual emission threshold levels. A true minor source should not be confused with a synthetic minor source which is an air pollution source that has a Federally Enforceable State Operating Permit (FESOP) with conditions that legally restrict its PTE to below the threshold levels.

WHAT SHOULD YOUR PERMIT APPLICATION INCLUDE?

Cover Letter

- Describe the grain elevator for which a construction and/or operating permit is being requested, including a complete list of materials proposed to be processed and the source of those materials.
- Indicate if the site already has an Illinois EPA air operating permit. If it does, detail if the permit is still
 representative of existing conditions at the site or if changes need to be made to the operating
 permit due to changes at the site since the existing operating permit was issued.

Description of the Operation

A written summary and/or table(s) that describes or identifies the following as it exists:

- Number and type of emission units (pits, storage bins, legs, conveyors, load-out spouts, dryers, etc.):
- The size/capacity of all emission units (except conveyors, legs, and drags);
- Pollution control equipment (cyclones, baghouse, etc.);
- The total permanent storage capacity for the elevator in bushels;
- Dates of construction of units/equipment, and if >2.5 mmBu permanent storage capacity, date 2.5 mmBu exceeded;
- What emission units are subject to 40 CFR Part 60 Subpart DD NSPS requirements, including testing:
- Annual grain through-put in millions of bushels/year; and
- The presence of other activities/units at the facility that may also require permitting (e.g., feed mill, bulk material handling, petroleum bulk plant, etc.)

Additional Information to Include:				
Dump Pits/Receiving Pits:	Drying/Cleaning:	Shipping/Loadout:		
Number of pits; Type of delivery (e.g., straight truck, hopper truck, rail, etc.); Type of pollution control device (cyclone, baghouse, etc.), if equipped; For truck delivery: Illinois EPA will assume 50/50% split between straight truck and hopper truck delivery; If higher grain throughput limits are requested for receiving, permitted emission limits may be lowered by increasing amount of grain received via hopper truck and decreasing grain received via straight truck. However, additional record keeping of amount of grain received via hopper truck vs. straight truck may be required to justify lower emissions.	Grain Drying: Number of dryers; Type of dryers (rack or column); and Desired throughput for drying (mmBu/yr). Grain Cleaning: Number of cleaners; Type of cleaners; Type of control (totally enclosed, cyclone, etc.); and Desired throughput for cleaning (mmBu/yr).	Number of Loadout Areas; Type of Loadout (truck, rail, or barge); Type of control (e.g., socks, sleeves, choke loading, cyclone, baghouse, etc.)		

This information is provided by the Illinois EPA Bureau of Air to assist you in properly submitting your source's application for an air pollution control permit. The information contained below is not a substitute for the regulations and it is the source's responsibility to comply with all applicable regulatory requirements. July-13

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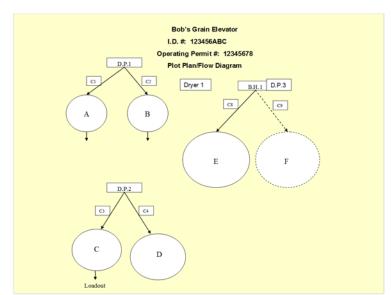
Example Summary Tables:

"Bob's Grain Elevator" I.D. #: 123456ABC Operating Permit #: 12345678 Site Grain Handling Summary Table					
Total Grain Throughput =	mmBu/	Yr			
Grain Received - Straight Truck =	mmBu/	Yr Controlled?			
Grain Received - Hopper Truck =	mmBu/	Yr Controlled?			
Grain Received – Rail =	mmBu/	Yr Controlled?			
Grain Received – Barge =	mmBu/	Yr Controlled?			
Grain Shipped – Truck =	mmBu/	Yr Controlled?			
Grain Shipped – Rail =	mmBu/	Yr Controlled?			
Grain Shipped – Barge =	mmBu/	Yr Controlled?			
Insert NA above where applicable					

"Bob's Grain Elevator" I.D. #: 123456ABC Operating Permit #: 12345678 Site Equipment Summary Table				
Type of Date Construction				
Item/ID	Size/Capacity	Control	Constructed/Modified	Permit #
Bin A	250,000 Bu	None	June 1976	?
Bin B	250,000 Bu	None	May 1979	?
Bin C	600,000 Bu	None	May 1995	95678901
Bin D	800,000 Bu	None	June 2004	04000001
Bin E*	800,000 Bu	None	April 2005 *	05000001
Bin F*	800,000 Bu	None	Proposed *	Proposed
Truck Dump Pit 1 None June 1976				
Truck Dump Pit 2		None	May 1995	
Rail Dump Pit 3*		Baghouse 1	April 2005 *	
Baghouse 1*		None	April 2005 *	
Conveyor 1		Enclosed	June 1976	
Conveyor 2		Enclosed	June 1979	
Leg 1		Enclosed		
Leg 2		Enclosed		
Conveyor 8*		Enclosed	April 2005 *	
Conveyor 9*		Enclosed	Proposed *	Proposed
Column Dryer 1		None	June 1976	?

Plot Plan/Flow Diagram:*

- Identify site location, site property boundaries, and surrounding land use.
- Illustrate all existing and proposed emission units and pollution control equipment at the source.
- Label each emission unit/ pollution control equipment with a unique name or identifier.
- Differentiate between existing and proposed emission units/pollution control equipment.



*Sketch drawing or block diagram is sufficient (doesn't have to be to scale)

NOTE: If you are applying for an operating permit and your grain elevator is eligible for the Lifetime General Operating Permit For Non-NSPS Grain Elevators, or 1 of the 7 Lifetime General Operating Permits For NSPS Grain Elevators, select, complete and submit the applicable *Criteria Applicability Certification form* (attached) with your application.

<u>Lifetime General Operating Permits For Grain Elevators</u>

The Illinois EPA will only authorize operation pursuant to those general permits if an application includes **all** of the following items:

- A description and location identifying the grain elevator.
- A statement certifying that the grain elevator meets the criteria in Finding 1 of the applicable Lifetime General Operating Permit For Grain Elevators.
- A request for authorization to operate pursuant to the applicable general permit.
- A statement that the grain elevator is, and will be, operated to comply with 40 CFR Part 60 Subpart DD NSPS (if applicable); 35 IAC Part 212, Subparts K and L, and the conditions of the applicable general permit.
- A signed certification by the applicant that the information contained in the application is accurate

Application Forms:

The forms can be obtained on the Illinois EPA website at: www.epa.state.il.us/air/stateforms/

- ✓ APC-200: Application for a Permit to Construct and/or Operate;
- ✓ 197-FEE: Fee Determination for Construction Permit Application if you are requesting a
 Construction Permit (Please make sure a check in the appropriate amount is also
 included with the completed 197-Fee form);
- ✓ If you are requesting one of the eight Lifetime General Operating Permits for Grain Elevators, complete the appropriate **Criteria Applicability Certification** from those attached and submit it with the application.

(Please make sure a check in the appropriate amount is also included with the completed 197-Fee form);

Send two copies of your application (three if located in Cook County) to:

Bureau of Air Permit Section Illinois Environmental Protection Agency 1021 North Grand Avenue East, P.O. Box 19506 Springfield, IL 62794-9506

Ouestions?

If you have any questions regarding air permitting, please contact the Illinois EPA Air Permit Section at 217-785-1705 or the Illinois Small Business Environmental Assistance Program at 800-252-3998.

<u>Registration of Smaller Sources (ROSS)</u>: Effective December 2011, true minor sources with low *actual* emissions may be eligible to participate in the mandatory Registration of Smaller Sources (ROSS) program identified at 35 Ill. Adm. Code 201.175. Sources who can meet the following emission criteria as well as other eligibility criteria must register under the ROSS program in lieu of acquiring or maintaining an air pollution control permit:

- 5.0 Tons/yr of combined pollutants (particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide and volatile organic material)
 - o 0.50 Tons/yr of combined Hazardous Air Pollutants (HAPs)
 - o 0.05 Tons/yr of mercury air emissions
 - o 0.05 Tons/yr of lead air emissions

For more information regarding the ROSS program including a complete list of the eligibility criteria visit www.ienconnect.com/enviro or contact the Illinois Small Business Environmental Assistance Program at 1-800-252-3998.

Criteria Applicability Certification LIFETIME GENERAL OPERATING PERMIT FOR NON-NSPS GRAIN ELEVATORS

The _		in	, Illinois requests a LIFE	TIME GENERAL	
(Gr	ain Elevator Name)	(City/Town I	Name) SPS GRAIN ELEVATORS:		
	Population Ar The elevator is satisfies the ex The elevator of The elevator of The elevator of Grain is receive The elevator is permit from II The elevator is headhouse, constorage piles of separation, for The elevator is Code Part 212	rea as defined at 3 s not subject to 3 xemptions in Sectoreceives and ships at storage capacity dries no more that cleans no more that wed and shipped on as no petroleum EPA. Includes no more onveyors, legs, drawith permanent (rur (4) column grass, and will be, op	ain dryers, and shipping/load-out. Derated to comply with the applicated of the same of t	ements since its operation ental Protection Act (Act). s of grain/year. million bushels. other operations requiring a all transfer (e.g., totally enclosed ildings, silos, and any grain andling equipment), cleaning and able portions of 35 Ill. Adm.	
			elevator meets all the required cri OR GRAIN ELEVATORS as no		
	of Authorized sentative:				
Signa	Signature: Date:				
Title:	_				

LIFETIME GENERAL OPERATING PERMIT FOR NSPS 40 CFR PART 60 SUBPART DD REGULATED GRAIN ELEVATORS (All dump pits <u>not</u> controlled by baghouse(s); <25 ton/year total PM emissions)

The _	in, Illinois requests a LIFETIM (City/Town Name)	IE GENERAL
OPER	Grain Elevator Name) (City/Town Name) RATING PERMIT FOR NSPS 40 CFR PART 60 SUBPART DD REC VATORS (All dump pits not controlled by baghouse(s); <25 ton/year to	GULATED GRAIN
	The elevator is located in Township of Oppulation Area as defined at 35 Ill. Adm. Code 211.3610. The elevator is not subject to 35 Ill. Adm. Code 212.462 requirement satisfies the exemptions in Section 9(f) of the Illinois Environmental The elevator receives and ships no more than 7,000,000 bushels of a The permanent storage capacity of the elevator is greater than 2.5 m. The elevator dries no more than 2.1 million bushels/year. The elevator cleans no more than 0.7 million bushels/year. Grain is received and shipped only by trucks and railcars. The elevator has no petroleum bulk plant or animal feed mill or other permit from IEPA. The elevator includes no more than: eight (8) dump pits, internal translations, conveyors, legs, drags), grain storage (e.g., bins, building storage piles with permanent (non-portable) or portable grain-handle separation, four (4) column grain dryers, and shipping/load-out. The elevator is, and will be, operated to comply with the applicable Code Part 212 Subparts B, K and S, 40 CFR Part 60 Subparts A and comply with the conditions of the lifetime general operating permit.	nts since its operation al Protection Act (Act). grain/year. nillion bushels. er operations requiring a ansfer (e.g., totally enclosed ags, silos, and any grain ing equipment), cleaning and portions of 35 Ill. Adm. al DD, and will be operated to
	eby certify that the <u>Grain Elevator Name</u> meets all the required criteria TIME GENERAL OPERATING PERMIT FOR GRAIN ELEVATOR	
	e of Authorized esentative:	
Signat	ature: Date:	
Title:		

LIFETIME GENERAL OPERATING PERMIT FOR NSPS 40 CFR PART 60 SUBPART DD REGULATED GRAIN ELEVATORS (Some dump pits controlled with baghouse(s); <25 ton/year total PM emissions)

I ne		, Illinois requests a LII	SETIME GENERAL
(Grain Elevator Name)			
		FR PART 60 SUBPART D	
ELEVATORS (Some	dump pits controlle	d with baghouse(s); <25 to	n/year total PM emissions):
Population Ar The elevator is satisfies the ex The elevator r The permanent The elevator c The elevator c The elevator c The elevator r The elevator r The elevator r permit from II The elevator is headhouse, constorage piles we separation, for The elevator is Code Part 212	rea as defined at 35 I is not subject to 35 II is mot subject to 35 II is mot subject to 35 II is mot subject and ships not at storage capacity of dries no more than 2. It cleans no more than 6 is mot and shipped only has no petroleum bulkepa. Includes no more than onveyors, legs, drags with permanent (non-ur (4) column grain of s, and will be, operate 2 Subparts B, K and S.	II. Adm. Code 211.3610. 1. Adm. Code 212.462 requal 9(f) of the Illinois Environ of more than 8,000,000 bushed the elevator is greater than 4 million bushels/year. 1. 8 million bushels/year. 2. 8 million bushels/year. 3. by trucks and railcars. 4 k plant or animal feed million: eight (8) dump pits, interportable or portable graindryers, and shipping/load-outed to comply with the application.	or other operations requiring a mal transfer (e.g., totally enclosed buildings, silos, and any grain handling equipment), cleaning and ut. icable portions of 35 Ill. Adm. A and DD, and will be operated to
		ame meets all the required of ERMIT FOR GRAIN ELEV	eriteria for the above specified ATORS as noted above.
Name of Authorized Representative:			
Signature:		Date:	
Title:			

LIFETIME GENERAL OPERATING PERMIT FOR NSPS 40 CFR PART 60 SUBPART DD REGULATED GRAIN ELEVATORS (All dump pits controlled with baghouse(s); <25 ton/year total PM emissions)

The _		in	, Illinois requests a LI	FETIME GENERAL		
	rain Elevator Name)	(City/Town No	ame)			
			CFR PART 60 SUBPART I			
ELE	VATORS (All d	ump pits controlled	d with baghouse(s); <25 ton/	year total PM emissions):		
•	Population And The elevator is satisfies the elevator in The permanent The elevator of The elevator of Grain is recein The elevator of the ele	rea as defined at 35 s not subject to 35 xemptions in Section receives and ships and storage capacity dries no more than cleans no more than the section reas no petroleum be and shipped on the section receives	Ill. Adm. Code 211.3610. Ill. Adm. Code 212.462 requon 9(f) of the Illinois Environmomore than 12,000,000 bus of the elevator is greater than 3.6 million bushels/year. In 1.2 million bushels/year. In 1.2 million bushels/year. In the plant or animal feed million bushels (a) dump pits, integrated to comply with the appendix of the plant of the possible grainmoment of the plant	or other operations requiring a sernal transfer (e.g., totally enclosed buildings, silos, and any grain n-handling equipment), cleaning and out. blicable portions of 35 Ill. Adm. s A and DD, and will be operated to permit.		
	•	· · · · · · · · · · · · · · · · · · ·	Name meets all the required PERMIT FOR GRAIN ELEV	criteria for the above specified VATORS as noted above.		
	e of Authorized esentative:					
Signa	Signature: Date:					
Title:						

LIFETIME GENERAL OPERATING PERMIT FOR NSPS 40 CFR PART 60 SUBPART DD REGULATED GRAIN ELEVATORS (All dump pits <u>not</u> controlled with baghouse(s); <100 ton/year total PM emissions)

The		in	, Illinois requests a LII	ETIME GENERAL
	in Elevator Name)	, .		
			CFR PART 60 SUBPART D	
ELEV	ATORS (All dun	np pits <u>not</u> cont	rolled with baghouse(s); <100	ton/year total PM emissions):
•	Population Area The elevator is a satisfies the exe The elevator rec The permanent of The elevator dri The elevator cle Grain is received The elevator has permit from IEP The elevator incheadhouse, convistorage piles wit separation, five The elevator is, Code Part 212 S	as defined at 3 mot subject to 33 mptions in Sect relives and ships storage capacity es no more that ans no more that and shipped of and shipped of an petroleum PA. Fludes no more that the permanent (no. (5) column grain and will be, oper subparts B, K and subjects B, K and subjects to subject to	5 Ill. Adm. Code 211.3610. 5 Ill. Adm. Code 212.462 requion 9(f) of the Illinois Environ no more than 26,000,000 busly of the elevator is greater than 7.8 million bushels/year. an 2.6 million bushels/year. only by trucks and railcars. bulk plant or animal feed mill othan: eight (8) dump pits, interags), grain storage (e.g., bins, baon-portable) or portable grainin dryers, and shipping/load-ouerated to comply with the application.	mental Protection Act (Act). hels of grain/year. 2.5 million bushels. or other operations requiring a mal transfer (e.g., totally enclosed buildings, silos, and any grain handling equipment), cleaning and at. icable portions of 35 Ill. Adm. A and DD, and will be operated to
	•		Name meets all the required of PERMIT FOR GRAIN ELEV	
	of Authorized sentative:			
Signat	ure:		Date:	
Title:				

LIFETIME GENERAL OPERATING PERMIT FOR NSPS 40 CFR PART 60 SUBPART DD REGULATED GRAIN ELEVATORS

(Some dump pits controlled with baghouse(s); <100 ton/year total PM emissions)

_ in _____, Illinois requests a LIFETIME GENERAL The (Grain Elevator Name) (City/Town Name) OPERATING PERMIT FOR NSPS 40 CFR PART 60 SUBPART DD REGULATED GRAIN ELEVATORS (Some dump pits controlled with baghouse(s); <100 ton/year total PM emissions): The elevator is located in _____ Township of _____ County and is not in a Major Population Area as defined at 35 Ill. Adm. Code 211.3610. 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). The elevator receives and ships no more than 35,000,000 bushels of grain/year. The permanent storage capacity of the elevator is greater than 2.5 million bushels. The elevator dries no more than 10.5 million bushels/year. The elevator cleans no more than 3.5 million bushels/year. Grain is received and shipped only by trucks and railcars. The elevator has no petroleum bulk plant or animal feed mill or other operations requiring a permit from IEPA. The elevator includes no more than: 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, six (6) column grain dryers, and shipping/load-out. The elevator is, and will be, operated to comply with the applicable portions of 35 Ill. Adm. Code Part 212 Subparts B, K and S, 40 CFR Part 60 Subparts A and DD, and will be operated to comply with the conditions of the lifetime general operating permit. I hereby certify that the <u>Grain Elevator Name</u> meets all the required criteria for the above specified LIFETIME GENERAL OPERATING PERMIT FOR GRAIN ELEVATORS as noted above. Name of Authorized Representative: Signature: Date: Title:

LIFETIME GENERAL OPERATING PERMIT FOR NSPS 40 CFR PART 60 SUBPART DD REGULATED GRAIN ELEVATORS (All dump pits controlled with baghouse(s); <100 ton/year total PM emissions):

I ne _			, Illinois requests a Lif	SETIME GENERAL
			, Illinois requests a LIF	
			CFR PART 60 SUBPART D	
ELEV	ATORS (All dum	p pits controlled	with baghouse(s); <100 ton/	year total PM emissions):
•	The elevator is lo	ocated in	Township of	County and is not in a Major
	Population Area	as defined at 35	Ill. Adm. Code 211.3610.	
•	The elevator is n	ot subject to 35	Ill. Adm. Code 212.462 requ	irements since its operation
	satisfies the exen	nptions in Section	on 9(f) of the Illinois Environ	mental Protection Act (Act).
•		•	o more than 45,000,000 busl	
•		-	of the elevator is greater than	•
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•			4.5 million bushels/year.	
•			ly by trucks and railcars.	
•			-	on other energicus as suivine s
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	permit from IEP		. 1. (0) 1	1. 6 (11 1 1
•				rnal transfer (e.g., totally enclosed
				buildings, silos, and any grain
	U 1		1 , 1	-handling equipment), cleaning and
	-		dryers, and shipping/load-out	
•				icable portions of 35 Ill. Adm.
		-		A and DD, and will be operated to
	comply with the	conditions of the	e lifetime general operating p	permit.
				criteria for the above specified
LIFET	ΓIME GENERAL	OPERATING P	ERMIT FOR GRAIN ELEV	ATORS as noted above.
	of Authorized			
Repre	sentative:			
Signat	ture:		Date:	
Title:				

LIFETIME GENERAL OPERATING PERMIT FOR

NSPS 40 CFR PART 60 SUBPART DD REGULATED GRAIN ELEVATORS

(Some dump pits controlled with baghouse(s); <100 ton/year total PM emissions; RAIL LOOP)

The	in	, Illinois requests a LIFI	ETIME GENERAL		
(Grain Elevator Name) OPERATING PERM	City/Town) IIT FOR NSPS 4	Name) 40 CFR PART 60 SUBPART DE rolled with baghouse(s); <100 tor	REGULATED GRAIN		
Population Ar The elevator is satisfies the example of the elevator of the el	rea as defined at is not subject to a xemptions in Secretary and shipped that storage capacidaties no more that the second and shipped has no petroleum EPA. Includes no more onveyors, legs, diswith permanent (ax (6) column grains, and will be, on 2 Subparts B, K and Subparts B, Sub	35 Ill. Adm. Code 211.3610. 35 Ill. Adm. Code 212.462 requirection 9(f) of the Illinois Environmos no more than 70,000,000 bushed by of the elevator is greater than 2 an 10.0 million bushels/year. Than 2.0 million bushels/year. Only by trucks and railcars. In bulk plant or animal feed mill on the ethan: eight (8) dump pits, internages), grain storage (e.g., bins, but (non-portable) or portable grain-hin dryers, and shipping/load-out. perated to comply with the application.	nental Protection Act (Act). els of grain/year. 2.5 million bushels. r other operations requiring a hal transfer (e.g., totally enclosed hildings, silos, and any grain handling equipment), cleaning and heable portions of 35 Ill. Adm. A and DD, and will be operated to		
		or Name meets all the required cr G PERMIT FOR GRAIN ELEV			
Name of Authorized Representative:					
Signature:	Signature: Date:				
Title:					