

2. The two 20.412 mmBtu/hour boilers are subject to the New Source Performance Standards (NSPS) for Small Industrial - Commercial - Institutional Steam Generating Units, 40 CFR 60, Subparts A and Dc. The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.
- 3a. Pursuant to 35 Ill. Adm. Code 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 Ill. Adm. Code 212.122.
- b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 meter (1000 foot) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. Pursuant to 35 Ill. Adm. Code 212.301, 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 at a point beyond the property line of the source.
- d. Pursuant to 35 Ill. Adm. Code 212.321(a), except as further provided in 35 Ill. Adm. Code Part 212, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.321(c).
- e. Housekeeping Practices. Pursuant to 35 Ill. Adm. Code 212.461(b), all grain-handling and grain-drying operations, regardless of size, must implement and use the following housekeeping practices:
 - i. Air pollution control devices shall be checked daily and cleaned as necessary to insure proper operation.
 - ii. Cleaning and Maintenance.
 - A. Floors shall be kept swept and cleaned from boot pit to cupola floor. Roof or bin decks and other exposed flat surfaces shall be kept clean of grain and dust that would tend to rot or become airborne.

- B. Cleaning shall be handled in such a manner as not to permit dust to escape to the atmosphere.
 - C. The yard and surrounding open area, including but not limited to ditches and curbs, shall be cleaned to prevent the accumulation of rotting grain.
- iii. Dump Pit.
- A. Aspiration equipment shall be maintained and operated.
 - B. Dust control devices shall be maintained and operated.
- iv. Head House. The head house shall be maintained in such a fashion that visible quantities of dust or dirt are not allowed to escape to the atmosphere.
- v. Property. The yard and driveway of any source shall be asphalted, oiled or equivalently treated to control dust.
- vi. Housekeeping Check List. Housekeeping check lists to be developed by the Illinois EPA shall be completed by the manager and maintained on the premises for inspection by Illinois EPA personnel.
- f. Pursuant to 35 Ill. Adm. Code 212.462, unless otherwise exempted pursuant to 35 Ill. Adm. Code 212.461(c) or (d), or allowed to use alternate control according to 35 Ill. Adm. Code 212.461(g), existing grain-handling operations with a total annual grain through-put of 300,000 bushels or more shall apply for an operating permit pursuant to 35 Ill. Adm. Code 201, and shall demonstrate compliance with the following:
- i. Cleaning and Separating Operations.
 - A. Particulate matter generated during cleaning and separating operations shall be captured to the extent necessary to prevent visible particulate matter emissions directly into the atmosphere.
 - B. For grain-handling sources having a grain through-put exceeding 2 million bushels per year and located within a major population area, air contaminants collected from cleaning and separating operations shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 98 percent by weight prior to release into the atmosphere.
 - ii. Major Dump-Pit Area.
 - A. Induced Draft.

- I. Induced draft shall be applied to major dump pits and their associated equipment (including, but not limited to, boots, hoppers and legs) to such an extent that a minimum face velocity is maintained, at the effective grate surface, sufficient to contain particulate emissions generated in unloading operations. The minimum face velocity at the effective grate surface shall be at least 200 fpm, which shall be determined by using the equation:

$$V = Q/A$$

where:

V = face velocity; and

Q = induced draft volume in scfm; and

A = effective grate area in ft²; and

- II. The induced draft air stream for grain-handling sources having a grain through-put exceeding 2 million bushels per year and located in a major population area shall be confined and conveyed through air pollution control equipment which has an overall rated and actual particulate collection efficiency of not less than 98 percent by weight; and
- III. Means or devices (including, but not limited to, quick-closing doors, air curtains or wind deflectors) shall be employed to prevent a wind velocity in excess of 50 percent of the induced draft face velocity at the pit; provided, however, that such means or devices do not have to achieve the same degree of prevention when the ambient air wind exceeds 25 mph. The wind velocity shall be measured, with the induced draft system not operating, at a point midway between the dump-pit area walls at the point where the wind exits the dump-pit area, and at a height above the dump-pit area floor of approximately 2 ft; or
- B. Any equivalent method, technique, system or combination thereof adequate to achieve, at a minimum, a particulate matter emission reduction equal to the reduction which could be achieved by compliance with 35 Ill. Adm. Code 212.462(b)(1).

- iii. Internal Transferring Area.
 - A. Internal transferring area shall be enclosed to the extent necessary to prohibit visible particulate matter emissions directly into the atmosphere.
 - B. Air contaminants collected from internal transfer operations for grain-handling sources having a grain through-put exceeding 2 million bushels per year and located in a major population area shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 98 percent by weight prior to release into the atmosphere.
- 4. Pursuant to 35 Ill. Adm. Code 214.301, except as further provided by 35 Ill. Adm. Code Part 214, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2000 ppm.
- 5. Pursuant to 35 Ill. Adm. Code 218.301, no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission unit, except as provided in 35 Ill. Adm. Code 218.302, 218.303, or 218.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 218 Subpart G shall only apply to photochemically reactive material.
- 6. This permit is issued based on the source not being subject to the New Source Performance Standards (NSPS) for Grain Elevators, 40 CFR 60 Subpart DD, because the permanent storage capacity of the grain storage elevator is less than 35,200 m³ (ca. 1.0 million U.S. bushels).
- 7. Pursuant to 35 Ill. Adm. Code 212.314, 35 Ill. Adm. Code 212.301 shall not apply and spraying pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 35 Ill. Adm. Code 212.312 shall not be required when the wind speed is greater than 40.2 km/hour (25 mph). Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.
- 8. Pursuant to 40 CFR 60.11(d), at all times, including periods of startup, shutdown, and malfunction, owners and operators shall to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or USEPA which may include, but is not

limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

- 9a. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.
 - b. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the dust collectors, and cyclones such that the dust collectors and cyclones are kept in proper working condition and not cause a violation of the Illinois Environmental Protection Act or regulations promulgated therein.
 - c. The ovens, the two 20.412 mmBtu/hour boilers and the two 8.37 mmBtu/hour boilers shall only be operated with natural gas as the fuel. The use of any other fuel in the ovens or boilers requires that the Permittee first obtain a construction permit from the Illinois EPA and then perform stack testing to verify compliance with all applicable requirements.
- 10a. Emissions from the listed equipment shall not exceed the following limits:

<u>Process/Equipment</u>	<u>Process Weight Rate</u>		<u>Emission Factor (Lb/Ton)</u>	<u>Control Efficiency (%)</u>	<u>PM Emissions</u>	
	<u>(T/Mo)</u>	<u>(T/Yr)</u>			<u>(T/Mo)</u>	<u>(T/Yr)</u>
Wheat Cooling	21,024	210,240	7.2	95	3.8	37.9
Shredders	21,024	210,240	0.48	95	0.25	2.5
Compactor System	10,074	100,740	0.48	95	<u>0.13</u>	<u>1.21</u>
				Total	4.18	41.61

These limits define the potential emissions of particulate matter (PM) and are based on maximum material usage and standard emission factors.

- b. This permit is issued based on negligible emissions of particulate matter from the wheat receiving and storage, wheat cleaning, clean wheat transfer, rye berry transfer, curing, and fines reclaim system. For this purpose emissions from each emission source, shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.
- c. Emissions and operation of the ovens shall not exceed the following limits:

<u>Material</u>	<u>(mmscf/Mo)</u>	<u>(mmscf/Yr)</u>	<u>Pollutant</u>	<u>Emission Factor</u>	<u>Emissions</u>	
				<u>(Lbs/mmscf)</u>	<u>(T/Mo)</u>	<u>(T/Yr)</u>
Natural Gas	73	730	CO	84	3.07	30.65
			NO _x	100	3.65	36.49

<u>Material</u>	<u>(mmscf/Mo)</u>	<u>(mmscf/Yr)</u>	<u>Pollutant</u>	<u>Emission Factor (Lbs/mmscf)</u>	<u>Emissions (T/Mo)</u>	<u>(T/Yr)</u>
			PM	7.6	0.28	2.77
			SO ₂	0.6	0.02	0.22
			VOM	5.5	0.20	2.01

These limits are based on the maximum fuel usage and standard emission factors (Tables 1.4-1 and 1.4-2, AP-42, Fifth Edition, Volume I, Supplement D, July 1998).

- d. Emissions and operation of the two 20.412 mmBtu/hour boilers shall not exceed the following limits:
 - i. Natural Gas Usage: 35.76 mmscf/month, 357.62 mmscf/year
 - ii. Emissions from the combustion of natural gas:

<u>Material</u>	<u>(mmscf/Mo)</u>	<u>(mmscf/Yr)</u>	<u>Pollutant</u>	<u>Emission Factor (Lbs/mmscf)</u>	<u>Emissions (T/Mo)</u>	<u>(T/Yr)</u>
Natural Gas	35.76	357.62	CO	36.0	0.64	6.44
			NO _x	71.0	1.27	12.70
			PM	10.0	0.18	1.79
			SO ₂	1.7	0.03	0.30
			VOM	4.0	0.07	0.72

These limits are based on the maximum fuel usage and standard emission factors (Clever Brooks Manufacturer's Specifications).

- e. Emissions and operation of the two 8.37 mmBtu/hour boilers shall not exceed the following limits:
 - i. Natural Gas Usage: 14.66 mmscf/month, 146.64 mmscf/year
 - ii. Emissions from the combustion of natural gas:

<u>Material</u>	<u>(mmscf/Mo)</u>	<u>(mmscf/Yr)</u>	<u>Pollutant</u>	<u>Emission Factor (Lbs/mmscf)</u>	<u>Emissions (T/Mo)</u>	<u>(T/Yr)</u>
Natural Gas	14.66	146.64	CO	84	0.62	6.16
			NO _x	100	0.73	7.33
			PM	7.6	0.06	0.56
			SO ₂	0.6	0.01	0.04
			VOM	5.5	0.04	0.40

These limits are based on the maximum fuel usage and standard emission factors (Tables 1.4-1 and 1.4-2, AP-42, Fifth Edition, Volume I, Supplement D, July 1998).

- f. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- 11. This permit is issued based on the Potential to Emit (PTE) for Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act from the source being less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements to obtain a Clean Air Act Permit Program (CAAPP) Permit.
- 12a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
 - i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.
 - ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.
- b. Testing required by Condition 13 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
- 13. Pursuant to 35 Ill. Adm. Code 212.110(c), upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or

visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA.

- 14a. Pursuant to 40 CFR 60.7(b), any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

- b. Pursuant to 40 CFR 60.7(f), any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR Part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

- 15a.
 - i. Pursuant to 40 CFR 60.48c(g)(1), except as provided under 40 CFR 60.48c(g)(2) and (g)(3), the owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each operating day.

 - ii. Pursuant to 40 CFR 60.48c(g)(2), as an alternative to meeting the requirements of 40 CFR 60.48c(g)(1), the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in 40 CFR 60.48c(f) to demonstrate compliance with the SO₂ standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

 - iii. Pursuant to 40 CFR 60.48c(g)(2), as an alternative to meeting the requirements of 40 CFR 60.48c(g)(1), the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to 40 CFR 60 Subpart Dc) at that property are natural gas, wood, distillate oil meeting the most current requirements in 40 CFR 60.42c to use fuel certification to demonstrate compliance with the SO₂ standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

- b. Pursuant to 40 CFR 60.48c(i), all records required under 40 CFR 60.48 shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

- 16. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.

- 17. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.

- 18a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
 - i. Records addressing use of good operating practices for the dust collectors, cyclones, scrubbers, filter receivers, and socks:
 - A. Records for periodic inspection of the dust collectors, cyclones, scrubbers, filter receivers, and socks with date, individual performing the inspection, and nature of inspection; and

- B. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
 - ii. Records of housekeeping check lists;
 - iii. Process weight rate for Wheat Cooling, Shredders, and Compactor System (tons/month and tons/year);
 - iv. Type and amount of material received by rail car (tons/month and tons/year);
 - v. Natural gas usage for the sources (mmscf/month and mmscf/year); and
 - vi. Monthly and aggregate annual emissions of CO, NO_x, PM, PM₁₀, SO₂, and VOM from source with supporting data and calculations (tons/month and tons/year).
- b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
- 19. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.
- 20. Pursuant to 35 Ill. Adm. Code 218.990, upon request by the Illinois EPA, the owner or operator of an emission unit which is exempt from the requirements of 35 Ill. Adm. Code 218 Subparts PP, QQ, RR, TT or 35 Ill. Adm. Code 218.208(b) shall submit records to the Illinois EPA within 30 calendar days from the date of the request that document that the emission unit is exempt from those requirements.
- 21a. If there is an exceedance of or a 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 within 30 days after the exceedance or 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.

- b. 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 Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

It should be noted that this permit has been revised to include the operation of the equipment described in Construction Permits 08080016, and 10050002.

If you have any questions on this permit, please contact Mike Dragovich at 217/785-1705.

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

Date Signed: _____

ECB:MJD:psj

cc: Illinois EPA, FOS Region 1
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the Kraft Manufacturing Plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels, (e.g., 100 tons per year of PM₁₀) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)				
	<u>CO</u>	<u>NO_x</u>	<u>PM</u>	<u>SO₂</u>	<u>VOM</u>
Wheat Cooling			37.90		
Shredders			2.50		
Compactor System			1.21		
Wheat Receiving and Storage			0.44		
Wheat Cleaning			0.44		
Clean Wheat Transfer			0.44		
Rye Berry Transfer			0.44		
Curing			0.44		
Fines Reclaim System			0.44		
Fuel Combustion					
	<u>43.24</u>	<u>56.51</u>	<u>5.12</u>	<u>0.57</u>	<u>3.12</u>
Totals	<u>43.24</u>	<u>56.51</u>	<u>49.37</u>	<u>0.57</u>	<u>3.12</u>