

STATE OF MISSOURI  
**DEPARTMENT OF NATURAL RESOURCES**

MISSOURI CLEAN WATER COMMISSION



**MISSOURI STATE OPERATING PERMIT**

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92<sup>nd</sup> Congress) as amended,

Permit No. MO-0100595

Owner: AG PROCESSING INC.  
Address: 12700 W. Dodge Road, Omaha, Nebraska 68154

Continuing Authority: Same as above  
Address: Same as above

Facility Name: AG PROCESSING INC.  
Facility Address: 900 Lower Lake Road, St. Joseph, MO 64504

Legal Description: SE ¼, NW ¼, Sec 30, T57N, R35W, Buchanan County  
UTM Coordinates: X = 339481, Y = 4399224

Receiving Stream: Missouri River (P) **303(d)**  
First Classified Stream and ID: Missouri River (P)(226)  
USGS Basin & Sub-watershed No.: 10240011-0103

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

**FACILITY DESCRIPTION**

Outfall #001 – SIC # 2075  
This outfall discharges non-contact cooling water and stormwater.  
Design flow: 4.94 MGD  
Actual flow: 4.6 MGD

This permit authorizes only discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Sections 640.013, 621.250, and 644.051.6 of the Law.

April 1, 2013  
\_\_\_\_\_  
Effective Date

\_\_\_\_\_  
Sara Parker Pauley, Director, Department of Natural Resources

September 30, 2017  
\_\_\_\_\_  
Expiration Date

\_\_\_\_\_  
John Madras, Director, Water Protection Program

<b>A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS</b>				PAGE NUMBER 2 of 6		
				PERMIT NUMBER MO-0100595		
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u>						
Flow	MGD	*		*	once/month	24-hr. total
Biochemical Oxygen Demand	mg/L	45		30	once/quarter**	grab
Total Suspended Solids	mg/L	45		30	once/quarter**	grab
pH	SU	***		***	once/quarter**	grab
Oil & Grease	mg/L	15		10	once/quarter**	grab
Temperature	°F	*		*	once/quarter**	grab
Total Residual Chlorine (Note 1)	µg/L	208 (130 ML)		104 (130 ML)	once/quarter**	grab
MONITORING REPORTS SHALL BE SUBMITTED <b>QUARTERLY</b> ; THE FIRST REPORT IS DUE <b>JULY 28, 2013</b> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
Whole Effluent Toxicity (WET) Test		% Survival	See Special Conditions		once/year	24-hr composite
MONITORING REPORTS SHALL BE SUBMITTED <b>ANNUALLY</b> ; THE FIRST REPORT IS DUE <b>JANUARY 28, 2013</b> .						
<b>B. STANDARD CONDITIONS</b>						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED PART I STANDARD CONDITIONS DATED OCTOBER 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

\* Monitoring requirement only.

\*\* See table below for quarterly sampling.

Minimum Sampling Requirements			
Quarter	Months	Effluent Parameters	Report is Due
First	January, February, March	Sample at least once during any month of the quarter	April 28 <sup>th</sup>
Second	April, May, June	Sample at least once during any month of the quarter	July 28 <sup>th</sup>
Third	July, August, September	Sample at least once during any month of the quarter	October 28 <sup>th</sup>
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28 <sup>th</sup>

\*\*\* pH is measured in pH units and is not to be averaged. The pH for all facilities is limited to the range of 6.5-9.0 pH units.

Note 1 - This permit contains a Total Residual Chlorine (TRC) limit.

- This effluent limit is below the minimum quantification level (ML) of the most common and practical EPA approved CLTRC methods. The department has determined the current acceptable ML for total residual chlorine to be 130 µg/L when using the DPD Colorimetric Method #4500 – CL G. from Standard Methods for the Examination of Waters and Wastewater. The permittee will conduct analyses in accordance with this method, or equivalent, and report actual analytical values. Measured values greater than or equal to the minimum quantification level of 130 µg/L will be considered violations of the permit and values less than the minimum quantification level of 130 µg/L will be considered to be in compliance with the permit limitation. The minimum quantification level does not authorize the discharge of chlorine in excess of the effluent limits stated in the permit.
- Disinfection is required year-round unless the permit specifically states that “Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31.” If your permit does not require disinfection during the non-recreational months, do not chlorinate in those months.
- Do not chemically dechlorinate **if it is not needed to meet the limits in your permit**.
- If no chlorine was used in a given sampling period, an actual analysis is not necessary. Simply report as “0 mg/L” TRC.

**C. SPECIAL CONDITIONS**

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:

- (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
  - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
  - (2) controls any pollutant not limited in the permit.
- (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
- (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.

3. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
  - (1) One hundred micrograms per liter (100 µg/L);
  - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
  - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
  - (4) The level established in Part A of the permit by the Director.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

4. Report as no-discharge when a discharge does not occur during the report period.

5. Water Quality Standards

- (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
- (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
  - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
  - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
  - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
  - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
  - (5) There shall be no significant human health hazard from incidental contact with the water;
  - (6) There shall be no acute toxicity to livestock or wildlife watering;
  - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
  - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

**C. SPECIAL CONDITIONS (continued)**

7. The permittee shall develop and implement a Storm water Pollution Prevention Plan (SWPPP). The SWPPP must be prepared and implemented within 90 days of permit issuance. The SWPPP must be kept on-site and should not be sent to DNR unless specifically requested. The SWPPP must be reviewed and updated, if needed, every five (5) years or as site conditions change. The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in the following document:

Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators, (Document number EPA 833-B-09-002) published by the United States Environmental Protection Agency (USEPA) in February 2009.

The SWPPP must include the following:

- (a) A listing of specific Best Management Practices (BMPs) and a narrative explaining how BMPs will be implemented to control and minimize the amount of potential contaminants that may enter storm water. Minimum BMPs are listed in SPECIAL CONDITIONS #8.
  - (b) The SWPPP must include a schedule for twice per month site inspections and brief written reports. The inspections must include observation and evaluation of BMP effectiveness. Deficiencies must be corrected within seven (7) days and the actions taken to correct the deficiencies shall be included with the written report, including photographs. Any corrective measure that necessitates major construction may also need a construction permit. Inspection reports must be kept on site with the SWPPP and maintained for a period of five (5) years. These must be made available to DNR personnel upon request.
  - (c) A provision for designating an individual to be responsible for environmental matters.
  - (d) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted on request of DNR.
8. Permittee shall adhere to the following minimum Best Management Practices:
- (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of storm water from these substances.
  - (b) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
  - (c) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to storm water or provide other prescribed BMP's such as plastic lids and/or portable spill pans to prevent the commingling of storm water with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
  - (d) Provide good housekeeping practices on the site to keep trash from entry into waters of the state.
  - (e) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property. This could include the use of straw bales, silt fences, or sediment basins, if needed, to comply with effluent limits.
9. The purpose of the SWPPP and the BMPs listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective in preventing pollution [10 CSR 20-2.010(56)] of waters of the state, and corrective actions means the facility took steps to eliminate the deficiency.
10. All paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) shall be stored so that these materials are not exposed to storm water. Spill prevention, control, and/or management shall be provided sufficient to prevent any spills of these pollutants from entering a water of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
11. Good housekeeping practices shall be maintained on the site to keep solid waste from entry into waters of the state.
12. An individual shall be designated by the permittee as responsible for environmental matters. Staff of the permitted facility shall inspect, on each workday, any structures that function to prevent pollution of storm water or to remove pollutants from storm water and of the facility in general to ensure that any Best Management Practices are continually implemented and effective.
13. All involved personnel shall be trained in material handling and storage, and housekeeping of areas having materials exposed to stormwater. Upon request, proof of training shall be submitted to the Department.

**C. SPECIAL CONDITIONS (continued)**

14. All spills must be cleaned up within 24 hours or as soon as possible, and a written report of the incident supplied with the facility's Discharge Monitoring Report. The following spills must be reported to the department at the earliest practicable moment, but no greater than 24 hours after the spill occurs:
  - (a) Any spill, of any material, that leaves the property of the facility;
  - (b) Any spill, of any material outside of secondary containment and exposed to precipitation, greater than 25 gallons or equivalent volume of solid material.
15. Substances, regulated by federal law under the Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), that are transported, stored, or used for maintenance, cleaning or repair, shall be managed according to RCRA and CERCLA.
16. Whole Effluent Toxicity (WET) tests shall be conducted as follows:

SUMMARY OF ACUTE WET TESTING FOR THIS PERMIT				
OUTFALL	AEC	FREQUENCY	SAMPLE TYPE	MONTH
001	10%	Once/year	24-hr composite	Any

DILUTION SERIES						
40%	20%	10%	5%	2.5%	(Control) 100% upstream, if available	(Control) 100% Lab Water, also called synthetic water

- (a) Test Schedule and Follow-Up Requirements
  - (1) Perform a MULTIPLE-dilution acute WET test in the months and at the frequency specified above. For tests which are successfully passed, submit test results using the Department's WET test report form #MO-780-1899 along with complete copies of the test reports as received from the laboratory, including copies of chain-of-custody forms within 30 calendar days of availability to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MO 65102. If the effluent passes the test, do not repeat the test until the next test period.
    - a. Chemical and physical analysis of the upstream control and effluent sample shall occur immediately upon being received by the laboratory, prior to any manipulation of the effluent sample beyond preservation methods consistent with federal guidelines for WET testing that are required to stabilize the sample during shipping.
    - b. Any and all chemical or physical analysis of the effluent sample performed in conjunction with the WET test shall be performed at the 100% Effluent concentration in addition to analysis performed upon any other effluent concentration.
    - c. All chemical analyses included in the Missouri Department of Natural Resources WET test report form #MO-780-1899 shall be performed and results shall be recorded in the appropriate field of the report form.
  - (2) The WET test will be considered a failure if mortality observed in effluent concentrations equal to or less than the AEC is significantly different (at the 95% confidence level;  $p = 0.05$ ) than that observed in the upstream receiving-water control sample. Where upstream receiving water is not available, synthetic laboratory control water may be used.
  - (3) All failing test results along with complete copies of the test reports as received from the laboratory, INCLUDING THOSE TESTS CONDUCTED UNDER CONDITION (3) BELOW, shall be reported to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MO 65102 within 14 calendar days of the availability of the results.
  - (4) If the effluent fails the test for BOTH test species, a multiple dilution test shall be performed for BOTH test species within 30 calendar days and biweekly thereafter (for storm water, tests shall be performed on the next and subsequent storm water discharges as they occur, but not less than 7 days apart) until one of the following conditions are met: Note: Written request regarding single species multiple dilution accelerated testing will be address by THE WATER PROTECTION PROGRAM on a case by case basis.
    - (i) THREE CONSECUTIVE MULTIPLE-DILUTION TESTS PASS. No further tests need to be performed until next regularly scheduled test period.
    - (ii) A TOTAL OF THREE MULTIPLE-DILUTION TESTS FAIL.
  - (5) Follow-up tests do not negate an initial failed test.

**SPECIAL CONDITIONS** (continued)

- (6) The permittee shall submit a summary of all test results for the test series along with complete copies of the test reports as received from the laboratory to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MO 65102 within 14 calendar days of the third failed test.
- (7) Additionally, the following shall apply upon failure of the third follow up MULTIPLE DILUTION test The permittee should contact THE WATER PROTECTION PROGRAM within 14 calendar days from availability of the test results to ascertain as to whether a TIE or TRE is appropriate. If the permittee does not contact THE WATER PROTECTION PROGRAM upon the third follow up test failure, a toxicity identification evaluation (TIE) or toxicity reduction evaluation (TRE) is automatically triggered. The permittee shall submit a plan for conducting a TIE or TRE to the WATER PROTECTION PROGRAM within 60 calendar days of the date of the automatic trigger or DNR's direction to perform either a TIE or TRE. This plan must be approved by DNR before the TIE or TRE is begun. A schedule for completing the TIE or TRE shall be established in the plan approval.
- (8) Upon DNR's approval, the TIE/TRE schedule may be modified if toxicity is intermittent during the TIE/TRE investigations. A revised WET test schedule may be established by DNR for this period.
- (9) If a previously completed TIE has clearly identified the cause of toxicity, additional TIEs will not be required as long as effluent characteristics remain essentially unchanged and the permittee is proceeding according to a DNR approved schedule to complete a TRE and reduce toxicity. Regularly scheduled WET testing as required in the permit, without the follow-up requirements, will be required during this period.
- (10) When WET test sampling is required to run over one DMR period, each DMR report shall contain a copy of the Department's WET test report form that was generated during the reporting period.
- (11) Submit a concise summary in tabular format of all WET test results with the annual report.

(b) Test Conditions

- (1) Test Type: Acute Static non-renewal
- (2) All tests, including repeat tests for previous failures, shall include both test species listed below unless approved by the department on a case by case basis.
- (3) Test species: Ceriodaphnia dubia and Pimephales promelas (fathead minnow). Organisms used in WET testing shall come from cultures reared for the purpose of conducting toxicity tests and cultured in a manner consistent with the most current USEPA guidelines. All test animals shall be cultured as described in the most current edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms.
- (4) Test period: 48 hours at the "Allowable Effluent Concentration" (AEC) specified above.
- (5) Upstream receiving stream water shall be used as dilution water. If upstream water is unavailable or if mortality in the upstream water exceeds 10%, "reconstituted" water will be used as dilution water. Procedures for generating reconstituted water will be supplied by the MDNR upon request.
- (6) Tests will be run with 100% receiving-stream water (if available), collected upstream of the outfall at a point beyond any influence of the effluent, and reconstituted water.
- (7) If reconstituted-water control mortality for a test species exceeds 10%, the entire test will be rerun.
- (8) If upstream control mortality exceeds 10%, the entire test will be rerun using reconstituted water as the dilutant.
- (9) Whole-effluent-toxicity test shall be consistent with the most current edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms

**MISSOURI DEPARTMENT OF NATURAL RESOURCES**  
**FACT SHEET**  
**FOR THE PURPOSE OF RENEWAL**  
**OF**  
**MO-0100595**  
**AG PROCESSING INC.**

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

A Factsheet is not an enforceable part of an operating permit.

This Factsheet is for an  Industrial Facility

**Part I – Facility Information**

Facility Type: IND  
Facility SIC Code(s): 2075 and 2079

**Facility Description:**

Ag Processing Inc. (AGP) is an organization supplying soy bean products and services on a worldwide basis. This facility consists of an extraction plant, a methyl ester plant, and soy plant. The facility's stormwater is collected and sent to Southside pretreatment facility. It is then sent to the City of St. Joseph Wastewater Treatment Facility. This area includes the refinery, silos, tanker wash and loading basins. This plant uses citric acid to remove iron deposits in pipes.

AGP has two concrete catch basins serving the loading stations. A linear basin also runs along the entire length of the loading area to capture spilled Methyl Ester. Spilled product is captured and separated from water. The product is recovered. The water sent to Southside pretreatment and on to St Joseph Wastewater Treatment Facility.

Any runoff water that contains oil, on the entire site, is run through an oil skimmer. The oil and water are separated. The oil is recovered and the water is sent to Southside pretreatment facility. AGP discharges non-contact cooling water into the Missouri River. The cooling water is drawn from private water well and then used to cool the refinery process. The non-contact cooling water is then discharged to the Missouri River.

Northeast end of AGP facility— Stormwater runoff breaks at the right side of the street and flows to the Missouri River. Stormwater runoff breaks to the left and runs to stormwater collection drains.

**SIC 2075 Soybean Oil Mills**

-Establishments primarily engaged in manufacturing soybean oil, cake, and meal, and soybean protein isolates and concentrates, or in processing purchased soybean oil other than into edible cooking oils.

**SIC 2079 Shortening, Table Oils, Margarine, and Other Edible Fats and Oils, Not Elsewhere Classified**

- Establishments primarily engaged in manufacturing shortening, table oils, margarine, and other edible fats and oils, not elsewhere classified.

Have any changes occurred at this facility or in the receiving water body that effects effluent limit derivation?

- No.

Application Date: 10/17/2012  
 Expiration Date: 03/13/2013  
 Last Inspection: 04/27/2012 Non-compliance

Facility failed to implement and maintain Best Management Practices for storage of industrial materials in order to comply with the Missouri Clean Water Law and applicable permit conditions [Section 644.076.1, RSMo and 10 CSR 20-6.200].

The facility has had four site inspections for the past 4 years.

April 29, 2008: non-compliance

- At the time of the inspection, refinery construction was underway in the northwest section. The site was open to definite discharge leading to sediment flowing into the Missouri River. There was no Best Management Practices for the site.
- The construction discharge pits were filled with mud. The whistles were filled with mud. Uncovered containers were not protected from traffic and rain. These containers held products such as concrete cure, form release, and like products.

May 27, 2008: re-inspection: compliance

- Best Management practices had been put into place. The mud had been cleaned out of the pits. The pits had been lined with shot-rock, fabric fences and hay bales. The containers were protected and stored out of site.
- On May 28th, Larry Kull, superintendent for M & W contractors reported to the department that additional shot rock had been placed around the whistles and along the corridor of the whistles, which aids in protecting the runoff area from sedimentation.

April 27, 2012: non-compliance

- In the “bone yard”, there were over 50 drums that were not protected from stormwater. The area did not have adequate best management practices, which may include secondary containment and covered areas in order to prevent the petroleum products from storm water. There were also 5 gal buckets of roofing coating and resurfacing products. There were also approximately seven (7) of the 55 gal drums that were not adequately sealed and were missing bungs, six (6) exposed fuel canisters, and open/spilled 5 gal buckets. The facility failed to implement practices that control plant site runoff, spillage or leaks, and was issued a Letter of Warning.
- Failed to implement and maintain Best Management Practices for storage of industrial materials in order to comply with the Missouri Clean Water Law and applicable permit conditions [Section 644.076.1, RSMo and 10 CSR 20-6.200].

July 3, 2012: satisfactory

- One area on the northwest side of the AGP plant did have some spillage of a solid filter media. Dumpsters used to store and transport this filter media are stored in an area on the northwest side of the plant. There was considerable spillage on the graveled pick-up area around these dumpsters. The filter media looked to contain a significant amount of organic material; therefore, this spillage will contribute to the overall stormwater pollution load. This is one area where more attention to containment of the used filter media within the provided dumpsters would lessen any chances of potential stormwater contamination.

There seems to have a need for SWPPP development for the facility. The facility’s Spill Prevention, Control and Countermeasures Plan may be incorporated into the development and implementation of SWPPP to ensure protection of the water quality.

**OUTFALL(S) TABLE:**

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
001	7.657	BMP	Non-contact cooling water & stormwater	0

Receiving Water Body’s Water Quality & Facility Performance History:

The U.S. Environmental Protection Agency, or EPA, approved the TMDL document for the Missouri River, WBIDs 0226, 0356, 0701 and 1604, across 25 counties, Atchison to St. Louis counties for Chlordane and PCBs. For more information, please visit <http://dnr.mo.gov/env/wpp/tmdl/0226-0356-0701-1604-missouri-r-record.htm>

Comments:

REPORTED INCIDENTS:

In an incident report dated September 5, 2007 AGP responded a mineral oil leak through a gasket in the cooling water that discharges into the Missouri River. AGP added an evaluation process and a response plan in the event that oil is detected.

On August 9, 2000, the department was copied by the City of St. Joseph for a violation of the City Ordinance Section 29-156 General Discharge Prohibition and 161 of the City Code. On November 7, 2000, the department was copied by the City of St. Joseph for a revocation to this Violation.

INSPECTION REPORT: 4/27/2012

In the “bone yard”, there were over 50 drums that were not protected from stormwater. The area did not have adequate best management practices, which may include secondary containment and covered areas in order to prevent the petroleum products from stormwater. There were also 5-gallon buckets of roofing coating and resurfacing products. There were also approximately seven (7) of the 55-gallon drums that were not adequately sealed and were missing bungs, six (6) exposed fuel canisters, and open/spilled 5-gallon buckets. The facility failed to implement practices that control plant site runoff, spillage or leaks, and was issued a **Letter of Warning**.

The facility did have a current edition of their Spill Prevention, Control and Countermeasures plan, which was compiled by Compliance Engineering, Inc. on August 15, 2008.

**LIMITATION EXCEEDANCE: DMR Data from March 14, 2008 to November 26, 2012.**

<i>PF No</i>	<i>MPED</i>	<i>Param Description</i>	<i>Unit</i>	<i>Conc 1</i>	<i>Stat Base Code</i>	<i>DMR Conc 1</i>	<i>Conc Min Limit</i>	<i>Conc Min DMR</i>	<i>DMR Conc 2</i>
001	01/31/2012	Chlorine, total residual	mg/L	0.104	Monthly Avg.	<b>0.45</b>	0.208	Daily Max.	<b>0.45</b>
001	01/31/2011	Chlorine, total residual	mg/L	0.104	Monthly Avg.	<b>1.57</b>	0.208	Daily Max.	<b>1.57</b>

**Part II – Operator Certification Requirements**

As per [10 CSR 20-6.010(8) Terms and Conditions of a Permit], permittees shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions and regulations. Operators or supervisors of operations at regulated wastewater treatment facilities shall be certified in accordance with [10 CSR 20-9.020(2)] and any other applicable state law or regulation.

Not Applicable;  
 This facility is not required to have a certified operator.

**Part III – Receiving Stream Information**

**APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:**

As per Missouri’s Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into the listed seven (7) categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall’s Effluent Limitation Table and further discussed in the Derivation & Discussion of Limits section.

Missouri or Mississippi River [10 CSR 20-7.015(2)]:

10 CSR 20-7.031 Missouri Water Quality Standards, the Department defines the Clean Water Commission water quality objectives in terms of “water uses to be maintained and the criteria to protect those uses.” The receiving stream and/or 1<sup>st</sup> classified receiving stream’s beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(3)].

**RECEIVING STREAM(S) TABLE:**

WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	12-DIGIT HUC**
Missouri River	P	226	IRR, LWW, AQL, WBC-B, SCR, DWS, IND	10240011-0103

\* - Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL), Cool Water Fishery (CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation (WBC), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND), Groundwater (GRW).

\*\* - Hydrological Unit Code

**RECEIVING STREAM(S) LOW-FLOW VALUES:**

The flows and level of the Missouri River are controlled by the US Army Corps of Engineers and are subject to human interference. The critical low flow values for the Missouri River were calculated by the U.S. EPA, at a 30Q10 of 28,823 cfs in the summer and 17,248 cfs in the winter (applicable to Ammonia); a 7Q10 of 11,674 cfs (applicable to all other parameters). US EPA conducted their study on February 13-14, 2008.

**MIXING CONSIDERATIONS THERMAL:**

Missouri's Water Quality Standards [10 CSR 20-7.031(4)(A)1.], specifically state that mixing considerations for toxics do not apply to thermal mixing considerations and that thermal mixing considerations are located in [10 CSR 20-7.031(4)(D)6.], which states thermal mixing considerations are limited to 25% of the cross-sectional area or volume of a river, unless a biological survey performed in response to 316(a) of the Clean Water Act indicate no significant adverse effect on aquatic life. For the purpose of mixing considerations, the Department typically uses the 25% of the daily flow vs cross-sectional area.

**Part IV – Rationale and Derivation of Effluent Limitations & Permit Conditions**

**ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:**

As per [10 CSR 20-7.015(4)(A)], discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

Not Applicable;

The facility does not discharge to a Losing Stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], or is an existing facility.

**ANTI-BACKSLIDING:**

A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

- All limits in this operating permit are at least as protective as those previously established; therefore, backsliding does not apply.

**ANTIDegradation:**

In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(2)], the Department is to document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

- Renewal no degradation proposed and no further review necessary.

**AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:**

As per [10 CSR 20-6.010(3)(B)], ...An applicant may utilize a lower preference continuing authority by submitting, as part of the application, a statement waiving preferential status from each existing higher preference authority, providing the waiver does not conflict with any area-wide management plan approved under section 208 of the Federal Clean Water Act or any other regional sewage service and treatment plan approved for higher preference authority by the Department.

**BIOSOLIDS & SEWAGE SLUDGE:**

Biosolids are solid materials resulting from domestic wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sewage sludge is solids, semi-solids, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a

treatment works. Additional information regarding biosolids and sludge is located at the following web address:  
<http://dnr.mo.gov/env/wpp/pub/index.html>, items WQ422 through WQ449.

Not applicable;  
This condition is not applicable to the permittee for this facility.

**COMPLIANCE AND ENFORCEMENT:**

Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

Not Applicable;  
The permittee/facility is not currently under Water Protection Program enforcement action.

**PRETREATMENT PROGRAM:**

The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a Publicly Owned Treatment Works [40 CFR Part 403.3(q)].

Pretreatment programs are required at any POTW (or combination of POTW operated by the same authority) and/or municipality with a total design flow greater than 5.0 MGD and receiving industrial wastes that interfere with or pass through the treatment works or are otherwise subject to the pretreatment standards. Pretreatment programs can also be required at POTWs/municipals with a design flow less than 5.0 MGD if needed to prevent interference with operations or pass through.

Several special conditions pertaining to the permittee's pretreatment program may be included in the permit, and are as follows:

- Implementation and enforcement of the program,
- Annual pretreatment report submittal,
- Submittal of list of industrial users,
- Technical evaluation of need to establish local limitations, and
- Submittal of the results of the evaluation

Not Applicable;  
The permittee, at this time, is not required to have a Pretreatment Program or does not have an approved pretreatment program.

**REASONABLE POTENTIAL ANALYSIS (RPA):**

Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard.

In accordance with [40 CFR Part 122.44(d)(iii)] if the permit writer determines that any give pollutant has the reasonable potential to cause, or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for that pollutant.

Applicable;  
AN RPA was conducted for this facility.

**REMOVAL EFFICIENCY:**

Removal efficiency is a method by which the Federal Regulations define Secondary Treatment and Equivalent to Secondary Treatment, which applies to Biochemical Oxygen Demand 5-day (BOD<sub>5</sub>) and Total Suspended Solids (TSS) for Publicly Owned Treatment Works (POTWs)/municipals.

Not Applicable;  
Influent monitoring is not being required to determine percent removal.

**SANITARY SEWER OVERFLOWS (SSO) AND INFLOW AND INFILTRATION (I&I):**

Sanitary Sewer Overflows (SSOs) are defined as an untreated or partially treated sewage release are considered bypassing under state regulation [10 CSR 20-2.010(11)] and should not be confused with the federal definition of bypass. SSO's have a variety of causes including blockages, line breaks, and sewer defects that allow excess storm water and ground water to (1) enter and overload the collection system, and (2) overload the treatment facility. Additionally, SSO's can be also be caused by lapses in sewer system operation and maintenance, inadequate sewer design and construction, power failures, and vandalism. SSOs also include overflows out of manholes and onto city streets, sidewalks, and other terrestrial locations.

Additionally, Missouri RSMo §644.026.1 mandates that the Department require proper maintenance and operation of treatment facilities and sewer systems and proper disposal of residual waste from all such facilities.

Not applicable;

This facility is not required to develop or implement a program for maintenance and repair of the collection system; however, it is a violation of Missouri State Environmental Laws and Regulations to allow untreated wastewater to discharge to waters of the state.

**SCHEDULE OF COMPLIANCE (SOC):**

A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit.

Not Applicable;

This permit does not contain a SOC.

**STORM WATER POLLUTION PREVENTION PLAN (SWPPP):**

In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; (2) Authorized under section 402(p) of the CWA for the control of storm water discharges; (3) Numeric effluent limitations are infeasible; or (4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. BMPs may take the form of a process, activity, or physical structure.

Additionally in accordance with the Storm Water Management, a SWPPP is a series of steps and activities to (1) identify sources of pollution or contamination, and (2) select and carry out actions which prevent or control the pollution of storm water discharges.

Applicable;

A SWPPP shall be developed and implemented for each site and shall incorporate required practices identified by the Department with jurisdiction, incorporate erosion control practices specific to site conditions, and provide for maintenance and adherence to the plan.

**VARIANCE:**

As per the Missouri Clean Water Law § 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §644.006 to 644.141.

Not Applicable;

This operating permit is not drafted under premises of a petition for variance.

**WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:**

As per [10 CSR 20-2.010(78)], the amount of pollutant each discharger is allowed by the Department to release into a given stream after the Department has determined total amount of pollutant that may be discharged into that stream without endangering its water quality.

Applicable;

Wasteload allocations were calculated.

**WLA MODELING:**

There are two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs). If TBELs do not provide adequate protection for the receiving waters, then WQBEL must be used.

Not Applicable;

A WLA study was either not submitted or determined not applicable by Department staff.

**WATER QUALITY STANDARDS:**

Per [10 CSR 20-7.031(3)], General Criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, [40 CFR 122.44(d)(1)] directs the Department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including State narrative criteria for water quality.

**WHOLE EFFLUENT TOXICITY (WET) TEST:**

A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with or through synergistic responses when mixed with receiving stream water.

Applicable;

The permittee is required to conduct WET test for this facility.

**40 CFR 122.41(M) - BYPASSES:**

The federal Clean Water Act (CWA), Section 402 prohibits wastewater dischargers from “bypassing” untreated or partially treated sewage (wastewater) beyond the headworks. A bypass, which includes blending, is defined as an intentional diversion of waste streams from any portion of a treatment facility, [40 CFR 122.41(m)(1)(i)]. Additionally, Missouri regulation 10 CSR 20-2.010(11) defines a bypass as the diversion of wastewater from any portion of wastewater treatment facility or sewer system to waters of the state. Only under exceptional and specified limitations do the federal regulations allow for a facility to bypass some or all of the flow from its treatment process. Bypasses are prohibited by the CWA unless a permittee can meet all of the criteria listed in 40 CFR 122.41(m)(4)(i)(A), (B), & (C). Any bypasses from this facility are subject to the reporting required in 40 CFR 122.41(l)(6) and per Missouri’s Standard Conditions I, Section B, part 2.b. Additionally, Anticipated Bypasses include bypasses from peak flow basins or similar devices designed for peak wet weather flows.

Not Applicable;

This facility does not bypass.

**303(d) LIST & TOTAL MAXIMUM DAILY LOAD (TMDL):**

Section 303(d) of the federal Clean Water Act requires that each state identify waters that are not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock and wildlife. The 303(d) list helps state and federal agencies keep track of waters that are impaired but not addressed by normal water pollution control programs.

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation

Applicable; Missouri River (WBIDs 0226, 0356, 0701 and 1604, across 25 counties, Atchison to St. Louis counties) is listed on the 2006 Missouri 303(d) List for chlordane and PCBs. However, the facility is not contributing to the impairment.

<http://dnr.mo.gov/env/wpp/tmdl/0226-0356-0701-1604-missouri-r-record.htm>

## **Part V – Effluent Limits Determination**

### ***Basis for Effluent Limits***

In general, the Clean Water Act (CWA) requires that the effluent limits for a particular pollutant be the more stringent of either technology-based limits or water quality-based limits. Technology-based limits are set according to the level of treatment that is achievable using available technology. A water quality-based effluent limit is designed to ensure that the water quality standards applicable to a waterbody are being met and may be more stringent than technology-based effluent limits.

### ***How Water Quality-based Effluent Limits are derived***

The first step in developing a water quality-based effluent limit is to develop a wasteload allocation (WLA) for the pollutant. A wasteload allocation is the concentration or loading of a pollutant that the permittee may discharge without causing or contributing to an exceedance of water quality standards in the receiving water.

In cases where a mixing zone is not authorized, either because the receiving water already exceeds the criterion, the receiving water flow is too low to provide dilution, or the State does not authorize one, the criterion becomes the WLA. Establishing the criterion as the wasteload allocation ensures that the permittee will not cause or contribute to an exceedance of the criterion. The following discussion details the specific water quality-based effluent limits in the draft permit.

**Chronic WLA:**  $C_e = ((\text{design flow} + 7Q10 \text{ MZ}) \text{ WQ Criterion} - (7Q10 \text{ MZ} * \text{background concentration upstream})) / \text{design flow}$   
 $C_e = \text{xx } \mu\text{g/L}$

**Acute WLA:**  $C_e = ((\text{design flow} + 7Q10 \text{ ZID}) \text{ WQ Criterion} - (7Q10 \text{ ZID} * \text{background concentration upstream})) / \text{design flow}$   
 $C_e = \text{xx } \mu\text{g/L}$

$$C_e = [((Q_e + Q_s) * C) - (Q_s * C_s)] / Q_e$$

*Where:*

$Q_e$  = volume of effluent discharge (design flow in cfs)

$Q_s$  = volume of receiving stream available for mixing (7Q10 of MZ in cfs for chronic; use ZID for acute)

$C_e$  = concentration of a pollutant of concern in the effluent (effluent limit)

$C_s$  = upstream concentration of pollutant of concern (background concentration)

**Outfall #001**

**EFFLUENT LIMITATIONS TABLE:**

PARAMETER	UNIT	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	MGD	*		*	NO	
BIOCHEMICAL OXYGEN DEMAND	MG/L	45		30	NO	
TOTAL SUSPENDED SOLIDS	MG/L	45		30	NO	
pH	SU	6.5-9.0		6.5-9.0	YES	6.0-9.0
OIL & GREASE	MG/L	15		10	YES	20/15
TEMPERATURE	°F	*		*	NO	
TOTAL RESIDUAL CHLORINE	µG/L	208		104	NO	
WHOLE EFFLUENT TOXICITY TEST	See Special Condition				YES	% SURVIVAL

\* - Monitoring requirement only.

**OUTFALL #001 – DERIVATION AND DISCUSSION OF LIMITS:**

- **Flow.** In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.
- **Biochemical Oxygen Demand (BOD).** This parameter has effluent limits of 45 mg/L daily maximum and 30 mg/L monthly average. The facility's 5-year DMR showed BOD concentrations ranging from 2 mg/L – 3.4 mg/L.
- **Total Suspended Solids (TSS).** This parameter has effluent limits of 45 mg/L daily maximum and 30 mg/L monthly average. The facility's 5-year DMR showed concentrations ranging 8 mg/L – 14 mg/L.
- **pH.** In accordance with [10 CSR 20-7.031(4)(E)], pH shall be maintained in the range from six and one-half to nine (6.5-9.0) standard units.
- **Oil & Grease.** Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum. The facility's 5-year DMR showed O&G concentrations ranging from 0.0 mg/L – 5 mg/L.
- **Temperature.** Monitoring requirement only. In accordance with 10 CSR 20-7.031(4)(D)5., this facility shall not exceed the monthly temperature criteria established of 90°F. The facility's 5-year DMR showed Temperature ranging from 68.4 °F – 83 °F.
- **Total Residual Chlorine as Cl<sub>2</sub>.** Warm-water Protection of Aquatic Life CCC = 10 µg/L, CMC = 19 µg/L [10 CSR 20-7.031, Table A]. Background TRC = 0.0 µg/L. **Design flow:** 7.657 cfs    **ZID:** 76.57 cfs    **MZ:** 2,916 cfs

$$\text{Chronic WLA: } C_e = 10 \mu\text{g/L} (7.657 \text{ cfs} + \mathbf{2,916} \text{ cfs}) / 7.657 \text{ cfs} = 3,818 \mu\text{g/L}$$

$$\text{Acute WLA: } C_e = 19 \mu\text{g/L} (7.657 \text{ cfs} + \mathbf{76.57} \text{ cfs}) / 7.657 \text{ cfs} = 209 \mu\text{g/L}$$

$$\text{LTA}_c = 3,818 \mu\text{g/L} (0.527) = 2,012 \mu\text{g/L} \quad [\text{CV} = 0.6, 99^{\text{th}} \text{ Percentile}]$$

$$\text{LTA}_a = 209 \mu\text{g/L} (0.321) = 67 \mu\text{g/L} \quad [\text{CV} = 0.6, 99^{\text{th}} \text{ Percentile}]$$

Use most protective number of LTA<sub>c</sub> or LTA<sub>a</sub>.

$$\text{MDL} = 67 \mu\text{g/L} (3.11) = 208 \mu\text{g/L} \quad [\text{CV} = 0.6, 99^{\text{th}} \text{ Percentile}]$$

$$\text{AML} = 67 \mu\text{g/L} (1.55) = 104 \mu\text{g/L} \quad [\text{CV} = 0.6, 95^{\text{th}} \text{ Percentile}, n = 4]$$

Total Residual Chlorine effluent limits of 208 µg/L daily maximum and 104 µg/L monthly average are recommended if chlorine is used as a disinfectant. The department has determined the current acceptable ML for Total Residual Chlorine to be 130 µg/L when using the DPD Colorimetric Method #4500 – CL G from Standard Methods for the Examination of Waters and Wastewater. If this facility obtains a Missouri State Operating Permit, then they shall conduct analyses in accordance with this method, or equivalent, and report actual analytical values.

- **WET Test.** WET Testing schedules and intervals are established in accordance with the Department’s Permit Manual; Section 5.2 *Effluent Limits / WET Testing for Compliance Bio-monitoring*. It is recommended that WET testing be conducted during the period of lowest stream flow.

Acute

No less than ONCE/YEAR:

Facility is designated as a Major facility or has a design flow  $\geq 1.0$  MGD.

**ALLOWABLE EFFLUENT CONCENTRATION (% AEC) CALCULATION:** For streams with 7Q10 low flow of greater than 20 cfs; Zone of Initial Dilution (ZID): no more than 10 times the effluent design flow volume [10 CSR 20-7.031(4)(B)(III)].

Design Flow of Outfall #001= 7.657 cfs; ZID= 76.57 cfs

$$\% \text{ AEC} = \frac{\text{Design Flow of Outfall \#001}}{\text{Zone of Initial Dilution} + \text{Design Flow of Outfall \#001}} \times 100$$

$$\text{Acute AEC\%} = [7.657 / (7.567 + 76.57)] * 100 = \mathbf{10\%}$$

Whole Effluent Toxicity test shall be conducted as follows:

Summary of Wet Testing for This Permit				
Outfall	A.E.C. %	Frequency	Sample Type	Month
001	10	Once/year	24-hr composite	Any

**PART VI: Finding of Affordability**

Pursuant to Section 644.145, RSMo, the Department is required to determine whether a permit or decision is affordable and makes a finding of affordability for certain permitting and enforcement decisions. This requirement applies to discharges from combined or separate sanitary sewer systems or publically-owned treatment works.

Not Applicable;

The Department is not required to determine findings of affordability because the facility is not a **combined or separate sanitary sewer system for a publically-owned treatment works**.

**Part VII – Administrative Requirements**

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

**PERMIT SYNCHRONIZATION:**

The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is that all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. This will allow further streamlining by placing multiple permits within a smaller geographic area on public notice simultaneously, thereby reducing repeated administrative efforts. This will also allow the department to explore a watershed based permitting effort at some point in the future.

This permit will expire on **September 30, 2017** in order to meet the permit synchronization goals.

**PUBLIC NOTICE:**

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

- The Public Notice period for this operating permit is tentatively scheduled to begin in January 2013.

The Public Notice period for this operating permit was from January 25, 2013 to February 25, 2013. No comments received.

**DATE OF FACT SHEET: JANUARY 16, 2013**

**COMPLETED BY:**

**JOY JOHNSON, ENVIRONMENTAL SPECIALIST III**  
**NPDES PERMITS UNIT**  
**WATER PROTECTION PROGRAM**  
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**PRE-PN COMMENTS**

**Comment #1 – Total Residual Chlorine Limit**

AGP maintains its concerns about the overly strict Total Residual Chlorine (TRC) limit for this facility. Chlorine is used by AGP to prevent biofilm growth in the non-contact cooling water system. In order to be effective, there needs to be some amount of free chlorine always available. With a permit limit below the minimum quantification level (ML) it is extremely difficult to measure enough free chlorine to be effective without exceeding the TRC limit in the permit.

AGP expressed these concerns about the overly restrictive nature of the TRC limit before the current permit was issued. Subsequently on December 16, 2010, AGP representatives met with Refaat Mefrakis and Michael Abbott to further discuss concerns and possible solutions. During that meeting, the MDNR indicated the willingness to evaluate three approaches:

- Establishment of a mass limit (lbs/day) instead of the existing concentration based limit
- Re-examination of the Variability Coefficient used to calculate the TRC limit
- The possible use of both the mixing zone and zone of initial dilution when calculating the TRC limit.

The Fact Sheet did not include any information about whether or not any of the above approaches were further explored during the review for the renewal of this permit. AGP would like an opportunity to discuss these further if they were not explored in order to establish a more reasonable TRC that still provides a necessary level of protection.

**Response to Comment # 1**

Waste Load Allocation calculation (WLA) is used to derive TRC limits. Both the mixing zone and zone of initial dilution, when available, are used in the calculation as shown below.

<u>Symbol</u>	<u>Analyte</u>	<u>CMC</u>	<u>RWC Acute</u>	<u>CCC</u>	<u>RWC Chronic</u>	<u>Potential</u>	<u>n</u>	<u>CV</u>
TRC	Total Residual Chlorine	0.019	3.03	0.01	0.09	YES	13	1.943634

Additionally, a Reasonable Potential Analysis (RPA) was conducted to determine the coefficient of variance (CV) using data reported in the facility’s discharge monitoring report. The RPA showed a CV of 1.686289 (or 1.7); calculating the TRC limit using a CV= 1.7 showed a much lower value than using the default CV= 0.6. At CV=0.6, the MDL was 208 µg/L while AML was 104 µg/L.

**Total Residual Chlorine as Cl<sub>2</sub>**, Warm-water Protection of Aquatic Life CCC = 10 µg/L, CMC = 19 µg/L [10 CSR 20-7.031, Table A]. Background TRC = 0.0 µg/L.

**Design flow:** 7.657 cfs     **ZID:** 76.57 cfs     **MZ:** 2,916 cfs

Chronic WLA:      $C_e = 10 \mu\text{g/L} (7.657 \text{ cfs} + \mathbf{2,916} \text{ cfs}) / 7.657 \text{ cfs} = 3,818 \mu\text{g/L}$

Acute WLA:      $C_e = 19 \mu\text{g/L} (7.657 \text{ cfs} + \mathbf{76.57} \text{ cfs}) / 7.657 \text{ cfs} = 209 \mu\text{g/L}$

$LTA_c = 3,818 \mu\text{g/L} (0.214) = 817 \mu\text{g/L}$      [CV = 1.9, 99<sup>th</sup> Percentile]

$LTA_a = 209 \mu\text{g/L} (0.121) = 25 \mu\text{g/L}$      [CV = 1.9, 99<sup>th</sup> Percentile]

Use most protective number of  $LTA_c$  or  $LTA_a$ .

$MDL = 25 \mu\text{g/L} (8.26) = 207 \mu\text{g/L}$      [CV = 1.9, 99<sup>th</sup> Percentile]

$AML = 25 \mu\text{g/L} (2.27) = 57 \mu\text{g/L}$      [CV = 1.9, 95<sup>th</sup> Percentile, n = 13]

Total Residual Chlorine effluent limits of 207 µg/L daily maximum and 57 µg/L monthly average are recommended if chlorine is used as a disinfectant. The department has determined the current acceptable ML for Total Residual Chlorine to be 130 µg/L when using the DPD Colorimetric Method #4500 – CL G from Standard Methods for the Examination of Waters and Wastewater. If this facility

obtains a Missouri State Operating Permit, then they shall conduct analyses in accordance with this method, or equivalent, and report actual analytical values.

Calculating TRC using a mass limit (lbs/day):

Design Flow: 4.94 MGD

TRC Average Monthly Limitation: 0.057 mg/L

TRC Daily Maximum Limitation: 0.207 mg/L (the daily max limit using CV=0.6)

Density of water: 8.34 lbs/gal

$$\begin{aligned} \text{TRC Average Monthly Mass Loading Limitation} &= (4.94 \text{ MGD})(0.057 \text{ mg/L})(8.34 \text{ lbs/gal}) \\ &= 2.3 \text{ lbs/day} \end{aligned}$$

$$\begin{aligned} \text{TRC Daily Maximum Mass Loading Limitation} &= (4.94 \text{ MGD})(0.207 \text{ mg/L})(8.34 \text{ lbs/gal}) \\ &= 8.5 \text{ lbs/day} \end{aligned}$$

Using the three approaches mentioned above to derive the TRC limits, Outfall #001 will have TRC limits of Daily maximum: 207 µg/L and 8.5 lbs/day and Monthly average: 57 µg/L and 2.3 lbs/day

**Follow-up: Response to Comment # 1**

During the January 16, 2013 conference call between MO DNR staff and the facility staff, it has been agreed that a CV = 0.6 will be used to calculate the TRC limits, which yields 208 µg/L daily maximum and 104 µg/L monthly average. Mass limits will be removed.

**Comment #2 – Additional Monitoring Requirements**

Section A, “Effluent Limitations and Monitoring Requirements” of the draft permit includes the addition of quarterly sampling and analysis for iron, manganese, hardness, sulfate, and chlorides. Quarterly monitoring of each of these constituent’s appears to be excessive and unnecessary for the reasons outlined below.

- A. **Iron:** Iron specific toxicity testing that AGP has performed at another AGP location has demonstrated that levels far in excess of 1 mg/L are protective of aquatic life. Also, as stated in the fact Sheet for this draft permit, WLA calculations due to mixing and based on an iron toxicity level of 1 mg/L results in a “derived effluent limit” which is much greater than the water quality standard of 1 mg/L.

The effluent iron concentration is entirely dependent on the iron concentration of the source water, as the AGP facility does not add iron to the water. The iron concentration of the source water is reasonably constant. Given that a derived effluent limit based on WLA is “much greater than either a water quality standard of 1.0 mg/L or the AGP reported level of 1.16 mg/L, AGP requests that the requirement to monitor iron in the effluent be removed from the permit.

**Response to Comment #2 A:**

Monitoring has been established for iron because the expanded effluent testing (Form C of the application) showed a concentration of 1,160 µg/L which exceeded the 1,000 µg/L water quality criterion for iron for AQL. In order to establish water quality based numeric limits for iron, a waste load allocation was calculated. Due to the receiving stream’s mixing zone and zone of initial dilution flow availability, the WLA calculation yielded a number greater than the standard. In this case, only monitoring requirement was established; no numeric limits.

**Follow-up: Response to Comment #2 A:**

The WLA calculation yields numeric limits greater than the water quality criterion for iron, thus, monitoring requirement has been removed.

- B. **Manganese:** The Fact Sheet for this draft permit under the section for Manganese refers to “iron” instead of Mn. AGP presumes that this is a typographical error. However, AGP could not find a DWS water criterion of 0.015 mg/L for either iron or manganese. For Manganese, AGP could only find a GRW water quality criterion of 0.05 mg/L.

Based on the statement in the Fact Sheet that a WLA calculations due to mixing results in a derive effluent limit which is much greater than a DWS of 0.015 mg/L, then the derived effluent limit would be even that much greater if comparing against a groundwater standard of 0.05 mg/L. In either case, given that:

1. A derived effluent limit needed to protect a drinking water supply or groundwater standard would be so greatly in excess of any reported level of 0.823 mg/L, and
2. The level of Mn that would impact groundwater or a drinking water supply would only be used in the diluted state after mixing,

AGP requests that the requirement to monitor Mn in the effluent be removed from the draft permit.

**Response to Comment #2 B:**

It is a typographical error; it is supposed to be Mn, not Fe.

The designated uses of the Missouri River are the following: IRR, LWW, AQL, WBC-B, SCR, DWS, IND. The 15 µg/L (0.015 mg/L) DWS was for a parameter located above manganese. Manganese has GRW criterion of 50 µg/L, however, the Missouri River does not have a GRW designated use. Thus, manganese monitoring will be removed from the draft permit.

- C. **Hardness, sulfate, and chloride.** The requirement to monitor all three of these constituents appears to be only related to concerns about protection of aquatic life, as the measured sulfate level if 154 mg/L is well below the DWS standard of 250 mg/L, even without taking into account the effects of mixing. AGP has completed a number of WET tests that show protection of AQL is currently achieved at the typical levels of hardness, sulfate and chloride present in the AGP facility’s effluent. AGP therefore requests that the requirements to monitor these three constituents for the purpose of calculating unneeded sulfate and chloride limitations be removed from the draft.

**Response to Comment #2 C:**

In order to establish consistency in permitting, parameters (in Form C or D) with effluent concentrations at least half of the water quality criteria will have either numeric limitation or monitoring requirement established. The facility’s expanded effluent testing showed sulfate of 154 mg/L which is more than half of 250 mg/L DWS (one of the beneficial uses of the Missouri River).

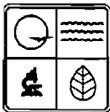
Sulfate, chloride, and hardness data are being monitored in order to determine the aquatic life protection limits (10 CSR 20-7.031(4)(L)) for the next permit cycle as shown in the formula found in Table A of 10 CSR 20-7.

$$S1 = [-57.478 + 5.79 (\text{hardness}) + 54.163 (\text{chloride})] * 0.65$$
$$S2 = [1276.7 + 5.508 (\text{hardness}) - 1.457 (\text{chloride})] * 0.65$$

**Follow-up: Response to Comment #2 C:**

Monitoring requirement for Cl, SO<sub>4</sub>, and hardness has been removed from the draft. Utilizing the old chloride plus sulfate standard, the facility’s sulfate concentration of 154 mg/L is well below the standard of 1,000 mg/L.

C10202  
AP13363



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH  
**FORM A - APPLICATION FOR CONSTRUCTION OR OPERATING PERMIT  
UNDER MISSOURI CLEAN WATER LAW**

FOR AGENCY USE ONLY	
CHECK NUMBER	
DATE RECEIVED	FEE SUBMITTED

**RECEIVED**  
SEP 17 2012  
KANSAS CITY REGIONAL OFFICE  
NOCK

**Note** PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.

1. This application is for:

An operating permit and antidegradation review public notice

A construction permit following an appropriate operating permit and antidegradation review public notice

A construction permit and concurrent operating permit and antidegradation review public notice

A construction permit (submitted before Aug. 30, 2008 or antidegradation review is not required)

An operating permit for a new or unpermitted facility

An operating permit renewal: permit # MO- MJ-0100595 Construction Permit # \_\_\_\_\_

An operating permit modification: permit # MO- \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Reason: \_\_\_\_\_

1.1 Is the appropriate fee included with the application? (See instructions for appropriate fee)  YES  NO

**2. FACILITY**

NAME		TELEPHONE WITH AREA CODE	
AG PROCESSING INC		(816) 238-1700	
		FAX (816) 396-2278	
ADDRESS (PHYSICAL)	CITY	STATE	ZIP CODE
900 LOWER LAKE ROAD	ST. JOSEPH	MO	64504

**3. OWNER**

NAME		E-MAIL ADDRESS	TELEPHONE WITH AREA CODE	
AG PROCESSING INC			(402) 496-7809	
			FAX (402) 498-2208	
ADDRESS (MAILING)	CITY	STATE	ZIP CODE	
12700 W. DODGE ROAD	OMAHA	NE	68154	

3.1 Request review of draft permit prior to public notice?  YES  NO

**4. CONTINUING AUTHORITY**

NAME		TELEPHONE WITH AREA CODE	
(SAME)			
		FAX	
ADDRESS (MAILING)	CITY	STATE	ZIP CODE

**5. OPERATOR**

NAME		CERTIFICATE NUMBER	TELEPHONE WITH AREA CODE	
(SAME)				
			FAX	
ADDRESS (MAILING)	CITY	STATE	ZIP CODE	

**6. FACILITY CONTACT**

NAME		TITLE	TELEPHONE WITH AREA CODE	
SCOTT REESE OR MIKE FUNCK		COMPLIANCE COORDINATORS	(816) 238-1700	
			FAX (816) 396-2278	

**7. ADDITIONAL FACILITY INFORMATION**

7.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)

001 SE 1/4 NW 1/4 Sec 30 T 57N R 35W Buch County

UTM Coordinates Easting (X): \_\_\_\_\_ Northing (Y): \_\_\_\_\_

*For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)*

002 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 Sec \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ \_\_\_\_\_ County

UTM Coordinates Easting (X): \_\_\_\_\_ Northing (Y): \_\_\_\_\_

003 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 Sec \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ \_\_\_\_\_ County

UTM Coordinates Easting (X): \_\_\_\_\_ Northing (Y): \_\_\_\_\_

004 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 Sec \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ \_\_\_\_\_ County

UTM Coordinates Easting (X): \_\_\_\_\_ Northing (Y): \_\_\_\_\_

7.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.

001 - SIC 2075 and NAICS \_\_\_\_\_ 002 - SIC \_\_\_\_\_ and NAICS \_\_\_\_\_

003 - SIC \_\_\_\_\_ and NAICS \_\_\_\_\_ 004 - SIC \_\_\_\_\_ and NAICS \_\_\_\_\_

**8. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION**  
**(Complete all forms that are applicable.)**

A.	Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility? If yes, complete Form C (unless storm water only, then complete U.S. Environmental Protection Agency Form 2F per Item C below).	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
B.	Is your facility considered a "Primary Industry" under EPA guidelines: If yes, complete Forms C and D.	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
C.	Is application for storm water discharges only? If yes, complete EPA Form 2F.	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
D.	Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.		
E.	Is wastewater land applied? If yes, complete Form I.	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
F.	Is sludge, biosolids, ash or residuals generated, treated, stored or land applied? If yes, complete Form R.	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>

**9. DOWNSTREAM LANDOWNER(S) Attach additional sheets as necessary. See Instructions.**  
**(PLEASE SHOW LOCATION ON MAP. SEE 8.D ABOVE).**

NAME KC P&L			
ADDRESS 1413 LOWER LAKE ROAD	CITY ST. JOSEPH	STATE MO	ZIP CODE 64502

**10.** I certify that I am familiar with the information contained in the application, that to the best of my knowledge and belief such information is true, complete and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions, subject to any legitimate appeal available to applicant under the Missouri Clean Water Law to the Missouri Clean Water Commission.

NAME AND OFFICIAL TITLE (TYPE OR PRINT) Mark Craigmile - Senior Vice President of Operations	TELEPHONE WITH AREA CODE (402) 496-7809
SIGNATURE 	DATE SIGNED 9/13/12

MO 780-1479 (01-09)

**BEFORE MAILING, PLEASE ENSURE ALL SECTIONS ARE COMPLETED AND ADDITIONAL FORMS, IF APPLICABLE, ARE INCLUDED.**

Submittal of an incomplete application may result in the application being returned.

HAVE YOU INCLUDED:

- Appropriate Fees?
- Map at 1" = 2000' scale?
- Signature?
- Form C, if applicable?
- Form D, if applicable?
- Form 2F, if applicable?
- Form I (Irrigation), if applicable?
- Form R (Sludge), if applicable?



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
 WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH  
**FORM C – APPLICATION FOR DISCHARGE PERMIT –**  
**MANUFACTURING, COMMERCIAL, MINING,**  
**SILVICULTURE OPERATIONS, PROCESS & STORM WATER**

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

**TE: DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS**

1.00 NAME OF FACILITY  
 Ag Processing Inc

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER  
 MO-0100595

1.20 THIS IS A NEW FACILITY AND WAS CONSTRUCTED UNDER MISSOURI CONSTRUCTION PERMIT NUMBER (COMPLETE ONLY IF THIS FACILITY DOES NOT HAVE AN OPERATING PERMIT).  
 N/A

2.00 LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES APPLICABLE TO YOUR FACILITY (FOUR DIGIT CODE)

A. FIRST 2075 - Soybean Processing B. SECOND 2079 - Soybean Oil Refining

C. THIRD \_\_\_\_\_ D. FOURTH \_\_\_\_\_

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION.

OUTFALL NUMBER (LIST) SE 1/4 NW 1/4 SEC 30 T 57N R 35W BUCHANAN COUNTY

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST) 001 RECEIVING WATER MISSOURI RIVER

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS  
 AGP is a soybean extraction and soy oil refining company.

**RECEIVED**  
 SEP 17 2012  
 KANSAS CITY REGIONAL OFFICE



**2.40 CONTINUED**

C. EXCEPT FOR STORM RUNOFF, LEAKS OR SPILLS, ARE ANY OF THE DISCHARGES DESCRIBED IN ITEMS A OR B INTERMITTENT OR SEASONAL?

**YES (COMPLETE THE FOLLOWING TABLE)**       **NO (GO TO SECTION 2.50)**

1. OUTFALL NUMBER <i>(list)</i>	2. OPERATION(S) CONTRIBUTING FLOW <i>(list)</i>	3. FREQUENCY		4. FLOW				C. DURATION <i>(in days)</i>
		A. DAYS PER WEEK <i>(specify average)</i>	B. MONTHS PER YEAR <i>(specify average)</i>	A. FLOW RATE <i>(in mgd)</i>		B. TOTAL VOLUME <i>(specify with units)</i>		
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	4. LONG TERM DAILY	3. MAXIMUM AVERAGE	
001	Well water used for non-contact cooling in the oil refinery	7	3	0.74	1.44	0.74 mgd	1.44 mgd	92

**2.50 MAXIMUM PRODUCTION**

A. DOES AN EFFLUENT GUIDELINE LIMITATION PROMULGATED BY EPA UNDER SECTION 304 OF THE CLEAN WATER ACT APPLY TO YOUR FACILITY?

**YES (COMPLETE B.)**       **NO (GO TO SECTION 2.60)**

B. ARE THE LIMITATIONS IN THE APPLICABLE EFFLUENT GUIDELINES EXPRESSED IN TERMS OF PRODUCTION (OF OTHER MEASURE OF OPERATION)?

**YES (COMPLETE c.)**       **NO (GO TO SECTION 2.60)**

C. IF YOU ANSWERED "YES" TO B. LIST THE QUANTITY THAT REPRESENTS AN ACTUAL MEASUREMENT OF YOUR MAXIMUM LEVEL OF PRODUCTION, EXPRESSED IN THE TERMS AND UNITS USED IN THE APPLICABLE EFFLUENT GUIDELINE AND INDICATE THE AFFECTED OUTFALLS.

1. MAXIMUM QUANTITY			2. AFFECTED OUTFALLS <i>(list outfall numbers)</i>
A. QUANTITY PER DAY	B. UNITS OF MEASURE	C. OPERATION, PRODUCT, MATERIAL, ETC. <i>(specify)</i>	

**2.60 IMPROVEMENTS**

A. ARE YOU NOW REQUIRED BY ANY FEDERAL, STATE OR LOCAL AUTHORITY TO MEET, ANY IMPLEMENTATION SCHEDULE FOR THE CONSTRUCTION, UPGRADING OR OPERATION OF WASTEWATER TREATMENT EQUIPMENT OR PRACTICES OR ANY OTHER ENVIRONMENTAL PROGRAMS THAT MAY AFFECT THE DISCHARGES DESCRIBED IN THIS APPLICATION? THIS INCLUDES, BUT IS NOT LIMITED TO, PERMIT CONDITIONS, ADMINISTRATIVE OR ENFORCEMENT ORDERS, ENFORCEMENT COMPLIANCE SCHEDULE LETTERS, STIPULATIONS, COURT ORDERS AND GRANT OR LOAN CONDITIONS.

**YES (COMPLETE THE FOLLOWING TABLE)**       **NO (GO TO 3.00)**

1. IDENTIFICATION OF CONDITION AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
				A. REQUIRED	B. PROJECTED

B. OPTIONAL: YOU MAY ATTACH ADDITIONAL SHEETS DESCRIBING ANY ADDITIONAL WATER POLLUTION CONTROL PROGRAMS (OR OTHER ENVIRONMENTAL PROJECTS THAT MAY AFFECT YOUR DISCHARGES) YOU NOW HAVE UNDER WAY OR ARE YOU PLANNING. INDICATE WHETHER EACH PROGRAM IS NOW UNDER WAY OR PLANNED, AND INDICATE YOUR ACTUAL OR PLANNED SCHEDULES FOR CONSTRUCTION.

**MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED.**



3.10 BIOLOGICAL TOXICITY TESTING DATA

DO YOU HAVE ANY KNOWLEDGE OR REASON TO BELIEVE THAT ANY BIOLOGICAL TEST FOR ACUTE OR CHRONIC TOXICITY HAS BEEN MADE ON ANY OF YOUR DISCHARGES OR ON RECEIVING WATER IN RELATION TO YOUR DISCHARGE WITHIN THE LAST THREE YEARS?

YES (IDENTIFY THE TEST(S) AND DESCRIBE THEIR PURPOSES BELOW.)  NO (GO TO 3.20)

3.20 CONTRACT ANALYSIS INFORMATION

WERE ANY OF THE ANALYSES REPORTED PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

YES (LIST THE NAME, ADDRESS AND TELEPHONE NUMBER OF AND POLLUTANTS ANALYZED BY EACH SUCH LABORATORY OR FIRM BELOW.)  NO (GO TO 3.30)

A. NAME	B. ADDRESS	C. TELEPHONE (area code and number)	D. POLLUTANTS ANALYZED (list)
Pace Analytical Services, Inc.	9608 Loiret Blvd. Lenexa, KS 66219	(913) 599-5665	BOD, Suspended Solids, Oil & Grease
Midwest Laboratories, Inc.	13611 B Street Omaha, NE 68144-3693	(402) 344-7770	Whole Effluent Toxicity

3.30 CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME AND OFFICIAL TITLE (TYPE OR PRINT) Mark Craigmile - Senior Vice President of Operations	TELEPHONE NUMBER WITH AREA CODE (402) 496-7809
SIGNATURE (SEE INSTRUCTIONS) 	DATE SIGNED 9/13/00

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheet instead of completing these pages.  
(Use the same format)  
SEE INSTRUCTIONS

FORM C  
TABLE 1 FOR 3.00 ITEM A AND B

OUTFALL NO.  
001

INTAKE AND EFFLUENT CHARACTERISTICS

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT				3. UNITS (specify if blank)				4. INTAKE (optional)		B. NO. OF ANALYSES	
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION		(2) MASS
A. Biochemical Oxygen Demand (BOD)	2.8	14			1.225	3.18	4	mg/l	kg			
B. Chemical Oxygen Demand (COD)	N.D.	N.D.					1	mg/l	kg			
C. Total organic Carbon (TOC)	3.4	7.71					4	mg/l	kg			
D. Total Suspended Solids (TSS)	14	69.89			6.75	17.5	1	mg/l	kg			
E. Ammonia (as N)	.14	0.32					1	mg/l	kg			
F. Flow	VALUE 1319000		VALUE		VALUE 685,000		12	gal/day		VALUE		
G. Temperature (winter)	VALUE 22.0		VALUE				1	°C		VALUE		
H. Temperature (summer)	VALUE 26.5		VALUE				1	°C		VALUE		
I. pH	MINIMUM 7.4	MAXIMUM 8.0	MINIMUM	MAXIMUM			4	STANDARD UNITS				

PART B - Mark 'X' in column 2-a for each pollutant you know or have reason to believe is present. Mark 'X' in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant, you must provide the results for at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS				5. INTAKE (optional)		B. NO. OF ANALYSES	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION		(2) MASS
A. Bromide (24959-67-9)		X												
B. Chlorine Total Residual	X		0.45	1.02			.155	0.36	4	mg/l	kg			
C. Color		X												
D. Fecal Coliform		X												
E. Fluoride (16984-48-8)		X												
F. Nitrate-Nitrate (as N)		X												

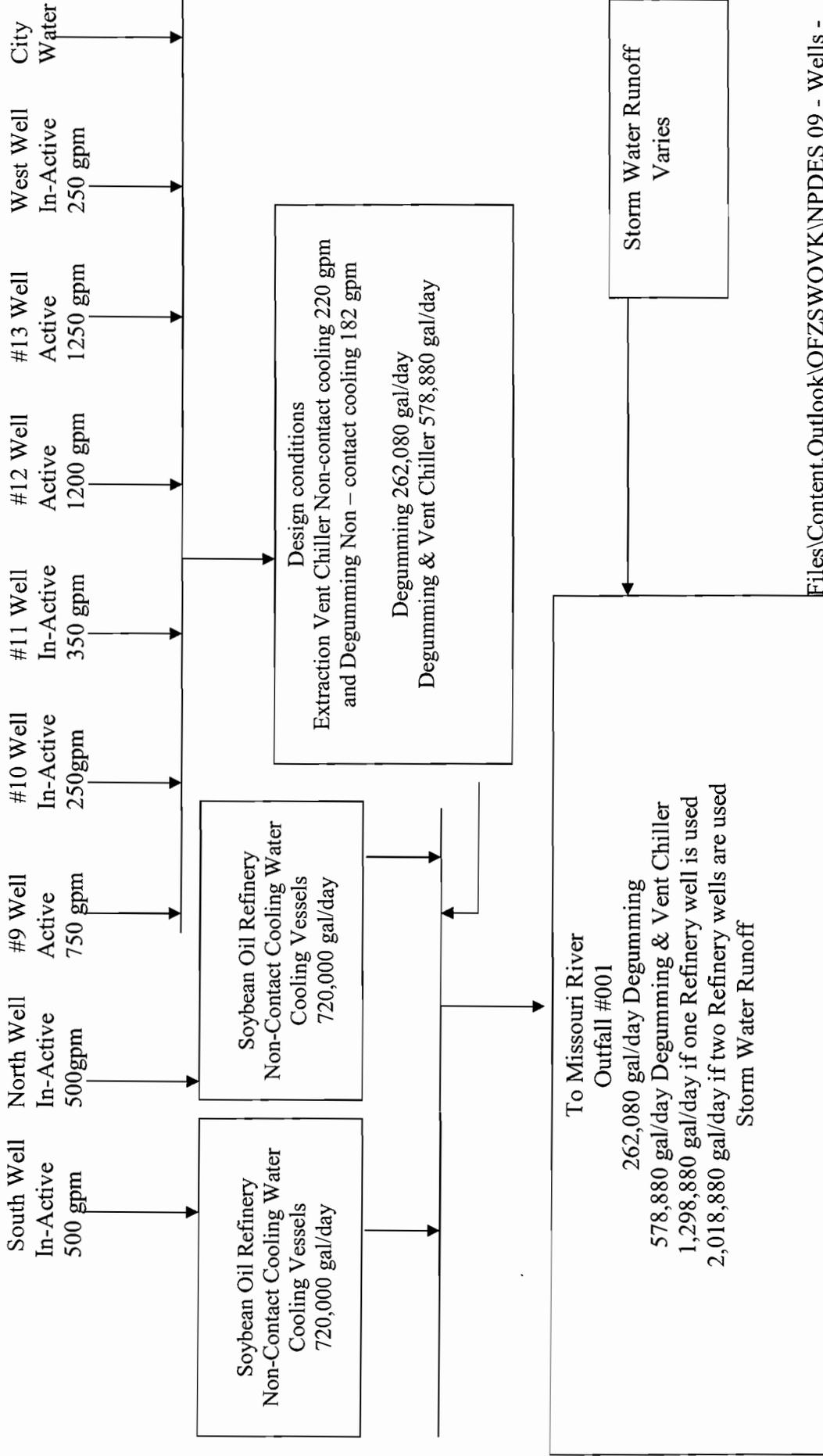
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
G. Nitrogen Total Organic (as N)		X												
H. Oil and Grease		X												
I. Phosphorus (as P) Total (7723-14-0)		X												
J. Sulfate (as SO <sub>4</sub> ) (14808-79-8)	X		154	349.15					1	mg/l	kg			
K. Sulfide (as S)		X												
L. Sulfite (as SO <sub>3</sub> ) (14265-45-3)		X												
M. Surfactants		X												
N. Aluminum Total (7429-90-5)		X												
O. Barium Total (7440-39-3)		X												
P. Boron Total (7440-42-8)		X												
Q. Cobalt Total (7440-48-4)		X												
R. Iron Total (7439-89-6)	X		1.16	2.63					1	mg/l	kg			
S. Magnesium Total (7439-95-4)	X		30.4	68.92					1	mg/l	kg			
T. Molybdenum Total (7439-98-7)		X												
U. Manganese Total (7439-96-5)	X		0.823	1.87					1	mg/l	kg			
V. Tin Total (7440-31-5)		X												
W. Titanium Total (7440-32-6)		X												

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS			5. INTAKE (optional)		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVRG. VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(if available)	(1) CONCENTRATION				(2) MASS	(1) CONCENTRATION	
<b>METALS, AND TOTAL PHENOLS</b>														
1M. Antimony, Total (7440-36-9)		X												
2M. Beryllium, Total (7440-41-7)		X												
3M. Magnesium, Total (7439-95-4)		X												
4M. Molybdenum, Total (7439-98-7)		X												
5M. Tin, Total (7440-31-5)		X												
6M. Titanium, Total (7440-32-6)		X												
7M. Mercury, Total (7439-97-6)		X												
8M. Selenium, Total (7782-49-2)		X												
9M. Thallium, Total (7440-28-0)		X												
10M. Phenols, Total		X												
<b>RADIOACTIVITY</b>														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												

2.40A

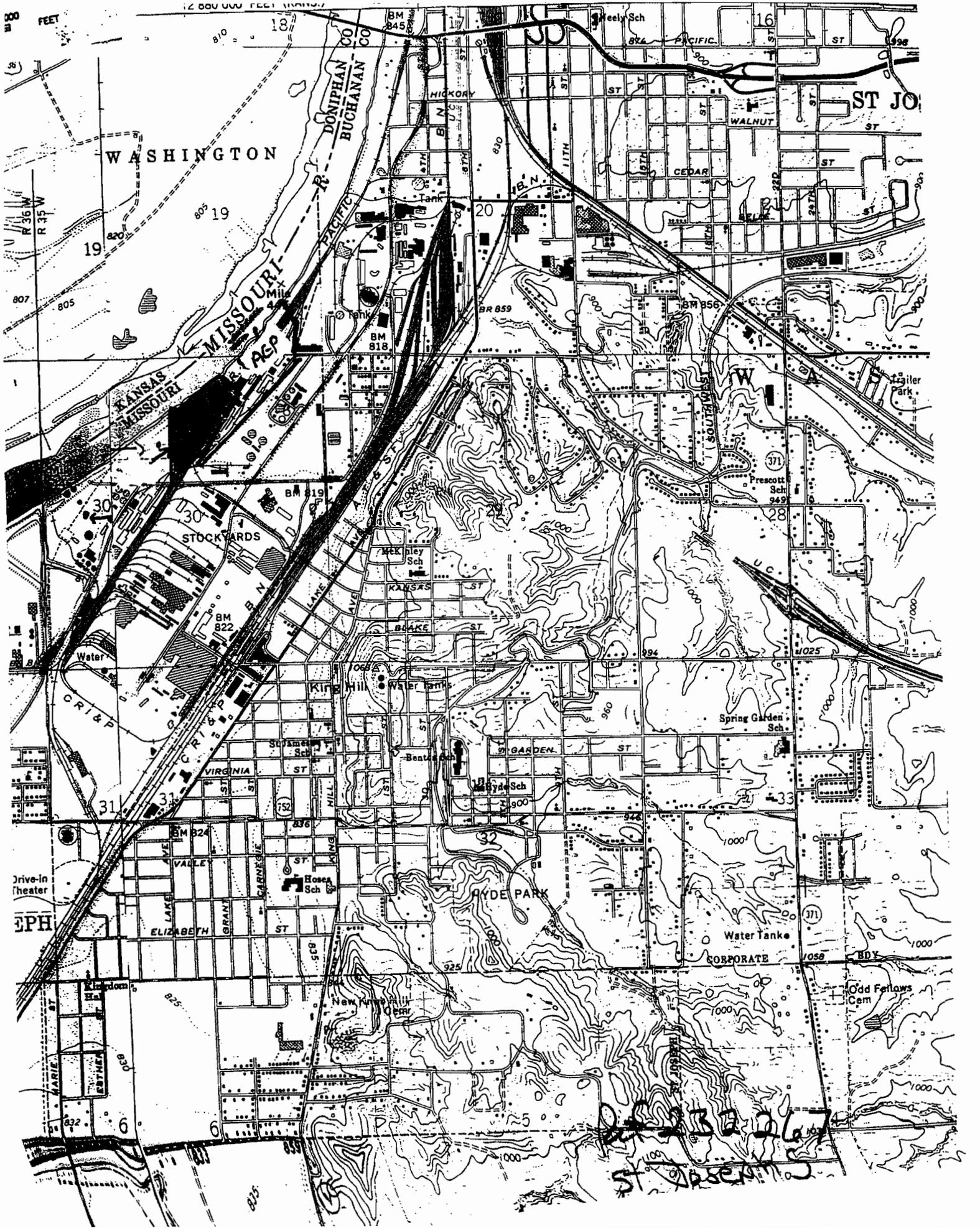
Water flow 2009

Ag Processing Inc St. Joseph, MO



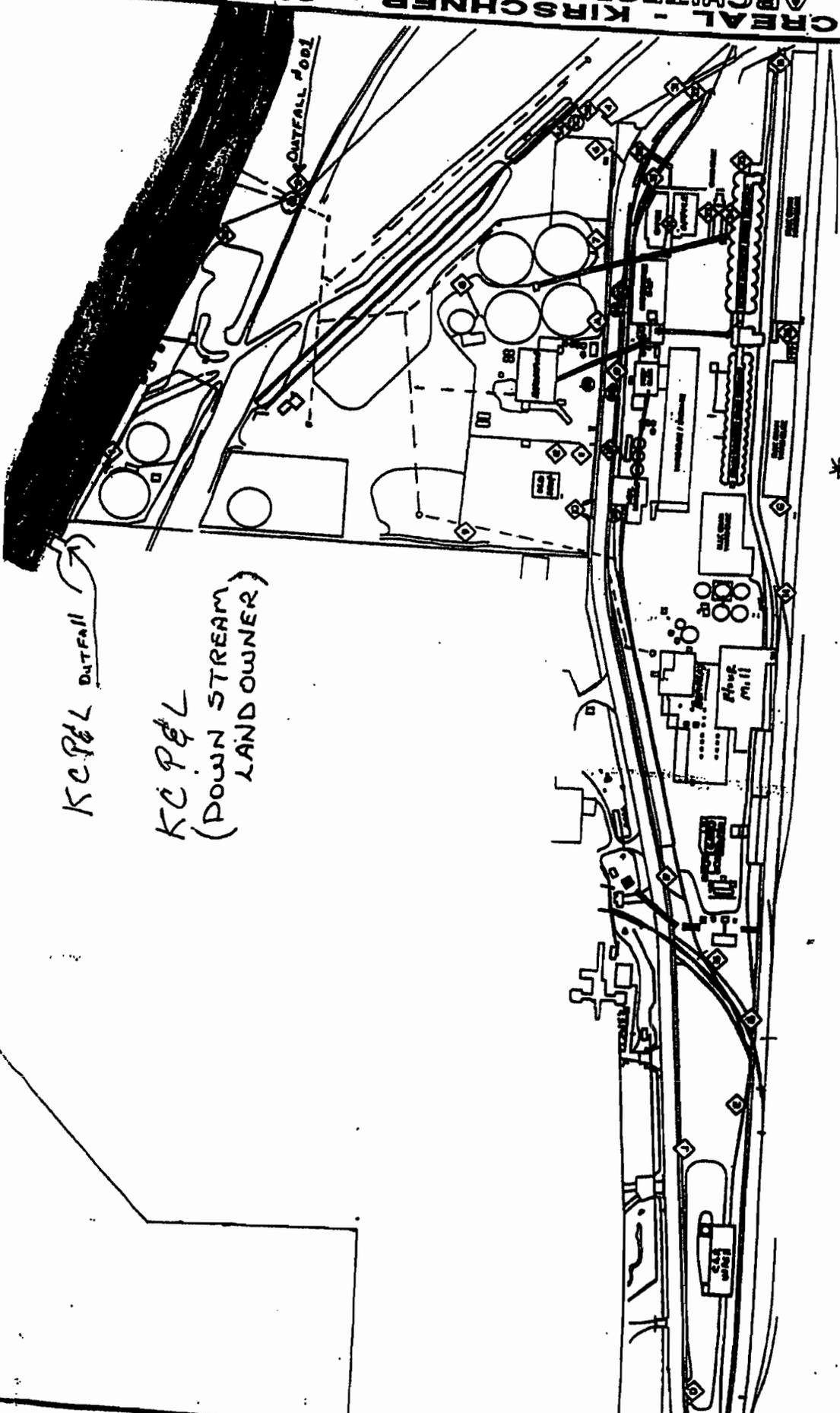
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Permit Application.doc



GREAT KIRSCHNER - CLARK  
 ENGINEERS - INC.  
 1000 WEST 10TH STREET, SUITE 100, OMAHA, NE 68104

BUILDING LAYOUT  
 FOR  
 AG PROCESSING  
 900 LOWER LAKE ROAD  
 ST. JOSEPH, MISSOURI



\* LEGEND -  
 --- Lines  
 --- INDICATE COOLING  
 WATER / Steam WATER  
 PIPES TO OUTFALL

KCP&L OUTFALL  
 KCP&L  
 (DOWN STREAM  
 LANDOWNER)

"NOT TO SCALE"

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 KANSAS CITY REGIONAL OFFICE



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SEP 24 2012

WATER PROTECTION PROGRAM

RECEIVED

SEP 17 2012

KANSAS CITY REGIONAL OFFICE

September 13, 2012

Jimmy Coles  
Missouri Department of Natural Resources  
500 NE Colbern Road  
Lee's Summit, MO 64086-4710

CERTIFIED MAIL

RE: Permit Renewal Application for MO-0100595  
Ag Processing Inc – 900 Lower Lake Road, St. Joseph

Dear Mr. Coles:

Please find enclosed, the permit renewal application for operating permit number MO 0100595 associated with the Ag Processing Inc facility located at 900 Lower Lake Road in St. Joseph, Missouri.

If you have any questions or require additional information, please feel free to contact the facility's Compliance Coordinator, Scott Reese, at (816) 396-2284 or [sreese@agp.com](mailto:sreese@agp.com).

Sincerely,

Allison G. Willis  
Environmental Compliance Manager

Cc: Scott Reese – AGP St. Joe  
Kelly Jorgensen – AGP Omaha

John Rever – AGP St. Joe