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, 92nd Congress) as amended,

Permit No.	MO-0092754
Owner:	Findett Corporation
Address:	8 Governor Drive, St. Charles, MO 63301
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	Findett Corporation
Address:	8 Governor Drive, St. Charles, MO 63301
Legal Description:	NW ¼, SE ¼, Sec. 23, T47N, R4W, St. Charles County
Receiving Stream:	Unnamed Tributary to Dardenne Creek (U)
First Classified Stream and ID:	Dardenne Creek (P1)(00219)
USGS Basin & Sub-watershed No.:	(07110009-030003)

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

FACILITY DESCRIPTION

See page 2

This permit authorizes only wastewater 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 Section 644.051.6 of the Law.

September 19, 2003
Effective Date

Stephen M. Mahfood, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

June 24, 2007
Expiration Date

Jim Hull, Director of Staff, Clean Water Commission

FACILITY DESCRIPTION (continued)

Outfall #001 - Industry/Storm Water Runoff - SIC #2869
Non-contact cooling water/floor drain.
Average flow is 4500 gallons per day.

Outfall #002 – Boiler blowdown - SIC #2869
Average flow is 30 gallons per day.

Outfall #003 – No longer exists.

Outfall #004 – Stormwater from loading & west containment areas - SIC #2869
Average flow is 106 gallons per day.

Outfall #005 - Stormwater from east containment area- SIC #2869
Average flow is 162 gallons per day.

Outfall #006 – Fuel tank containment/stormwater - SIC #2869
Average flow is 34 gallons per day.

Outfall #007 – Stormwater - SIC #2869
Average flow is 1766 gallons per day or less.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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
Outfall #001						
Flow	MGD	*		*	once/month	24 hr. total
Chemical Oxygen Demand	mg/L	*		*	once/quarter**	grab
Total Suspended Solids	SU	45		30	once/quarter**	grab
Oil & Grease	mg/L	15		10	once/quarter**	grab
pH - Units	mg/L	***		***	once/quarter**	grab
Ammonia as N	mg/L	0.5		0.3	once/quarter**	grab
Temperature	°C	****		****	once/quarter**	grab
MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE January 28, 2004.						
Whole Effluent Toxicity (WET) Test	% Survival	(Special Condition #9)			once/year in April	24 hr. composite
MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE October 28, 2004.						
Outfall #002 (Note 1)						
Flow	MGD	*		*	once/month	24 hr. total
Total Suspended Solids	mg/L	45		30	once/quarter**	grab
Oil and Grease	mg/L	15		10	once/quarter**	grab
pH – Units	SU	***		***	once/quarter**	grab
Temperature	°C	****		****	once/quarter**	grab
MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE January 28, 2004.						
Outfalls #004, #005, #006 & #007						
Flow	MGD	*		*	once/year	24 hr. total
Chemical Oxygen Demand	mg/L	*		*	once/year	grab
Total Suspended Solids	mg/L	45		30	once/year	grab
Oil and Grease	mg/L	15		10	once/year	grab
pH – Units	SU	*		*	once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE October 28, 2004. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Parts I & III STANDARD CONDITIONS DATED October 1, 1980 and August 15, 1994, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.
** Sample once per quarter in the months of March, June, September, and December.
*** pH is measured in pH units and is not to be averaged. The effluent pH shall not be less than 6.0 nor greater than the incoming water supply. The pH of the incoming water supply shall be reported whenever the effluent pH is greater than 9.0.
**** Effluents shall not elevate the temperature of the receiving stream more than 5°F nor shall the receiving stream temperature exceed 90°F due to effluent.

Note 1 - Samples are not to be collected from the end of the pipe. Samples shall be collected at the east ditch where the effluent leaves the property.

B. STANDARD CONDITIONS

IN ADDITION TO THE SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED PART I STANDARD CONDTIONS DATED OCTOBER 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FOURTH HEREIN.

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

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

4. Permittee is to abandon the treatment facilities described herein and shall connect the tributary waste load to trunk sewers within 90 days of notice of availability if trunk sewers operated by one of the authorities outlined in Section (3)(B) 1 or 2 of Clean Water Commission Regulation 10 CSR 20-6.010 are made available to the site during the time a valid discharge permit exists.

5. No spilled materials shall be discharged through Outfalls #004, #005 and #006. These outfalls are permitted to discharge uncontaminated storm water only.

C. SPECIAL CONDITIONS (continued)

6. 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.

7. Industrial Sludge Disposal. Disposal of industrial sludge is not authorized by this permit. Industrial sludge shall be disposed at a permitted solid waste disposal facility in accordance with 10 CSR 80; or if the sludge is determined to be hazardous waste, shall be disposed at a permitted hazardous waste disposal facility pursuant to 10 CSR 25.

a. Non-hazardous sludge that is disposed on site or that is exempted under 10 CSR 80 must obtain applicable permits under 10 CSR 20-6.015 and 10 CSR 20-6.200.
b. Each effluent monitoring report shall also specify the date any sludge is removed from the facility, who removed the sludge and the number of gallons or quantity of sludge removed. The final disposal location shall be reported, including the name of the disposal facility, the solid waste or hazardous waste disposal permit number, and date of permit issuance.
c. This permit may (after due process) be modified, or alternatively revoked and reissued, to comply with any applicable sludge disposal standard or limitation issued or approved under Section 405(d) of the Clean Water Act.

8. General Criteria. The following 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:
(a) 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;
(b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
(c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
(d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
(e) There shall be no significant human health hazard from incidental contact with the water;
(f) There shall be no acute toxicity to livestock or wildlife watering;
(g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
(h) 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)

9. Whole Effluent Toxicity (WET) tests will be conducted as follows:

SUMMARY OF WET TESTING FOR THIS PERMIT				
OUTFALL	A.E.C. %	FREQUENCY	SAMPLE TYPE	MONTH
#001	100%	Annually	24 hr. composite	April

a. Test Schedule and Follow-Up Requirements

(1) Perform a single-dilution test in the months and at the frequency specified above.

If the effluent passes the test, do not repeat the test until the next test period. Submit results with the annual report.
If the effluent fails the test, a multiple dilution test shall be performed within 30 days, and biweekly thereafter, until one of the following conditions are met:

(a) THREE CONSECUTIVE MULTIPLE-DILUTION TESTS PASS. No further tests need to be performed until next regularly scheduled test period.
(b) A TOTAL OF THREE MULTIPLE-DILUTION TESTS FAIL.

(2) The permittee shall submit a summary of all test results for the test series to the WPCP, Planning Section, P.O. Box 176, Jefferson City, MO 65102 within 14 days of the third failed test. DNR will contact the permittee with initial guidance on conducting a toxicity identification evaluation (TIE) or toxicity reduction evaluation (TRE). The permittee shall submit a plan for conducting a TIE or TRE to the Planning Section of the WPCP within 60 days of the date of DNR's letter. 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.

(3) 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.

(4) 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.

(5) In addition to the WET test summary report required in part (2), all failing test results shall be reported to DNR within 14 days of the availability of the results.

(6) All WET test results for the reporting period shall be summarized and submitted to DNR by the end of the following October. When WET test sampling is required to run over one DMR period, each DMR report shall contain information generated during the reporting period.

C. SPECIAL CONDITIONS (continued)

9. Whole Effluent Toxicity (WET)(continued)

b. PASS/FAIL procedure and effluent limitations

(1) To pass a single-dilution test, mortality observed in the AEC test concentration shall not be significantly different (at the 95% confidence level; p = 0.05) than that observed in the upstream receiving-water control sample. The appropriate statistical tests of significance will be those outlined in the most current USEPA acute toxicity manual or those specified by the MDNR.

(2) To pass a multiple-dilution test:

(a) the computed percent effluent at the edge of the zone of initial dilution, Acceptable Effluent Concentration (AEC), must be less than three-tenths (0.3) of the LC_{50} concentration for the most sensitive of the test organisms; or,
(b) all dilutions equal to or greater than the AEC must be nontoxic. Failure of one multiple-dilution test is an effluent limit violation.

c. Test Conditions

(1) Test species: Ceriodaphnia dubia and Pimephales promelas (fathead minnow). Organisms used in WET testing should come from cultures reared for the purpose of conducting toxicity tests and should be cultured in a manner consistent with the most current USEPA guidelines. All test animals should be cultured as described in EPA-600/4-90/027.

(2) Test period: 48 hours at the "Acceptable Effluent Concentration" (AEC) specified above.

(3) When dilutions are required, 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.

(4) Tests should be initiated immediately after the sample is collected, but tests must be initiated no later than 36 hours after sample collection.

(5) Single-dilution tests will be run with:

(a) Effluent at the AEC concentration;
(b) 100% receiving-stream water (if available), collected upstream of the outfall at a point beyond any influence of the effluent; and
(c) reconstituted water.

(6) Multiple-dilution tests will be run with:

(a) 100%, 50%, 25%, 12.5%, and 6.25% effluent, unless the AEC is less than 25% effluent, in which case dilutions will be 4 times the AEC, two times the AEC, AEC, 1/2 AEC and 1/4 AEC;
(b) 100% receiving-stream water (if available), collected upstream of the outfall at a point beyond any influence of the effluent; and
(c) reconstituted water.

(7) If reconstituted-water control mortality for a test species exceeds 10%, the entire test will be rerun.

SUMMARY OF TEST METHODOLOGY FOR WHOLE-EFFLUENT TOXICITY TESTS

Whole-effluent-toxicity test required in NPDES permits shall use the following test conditions when performing single or multiple dilution methods. Any future changes in methodology will be supplied to the permittee by the Missouri Department of Natural Resources (MDNR). Unless otherwise specified by MDNR, procedures should be consistent with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, EPA/600/4-90/027.

Test conditions for Ceriodaphnia dubia:

Test duration:	48 h
Temperature:	25 ± 2°C
Light Quality:	Ambient laboratory illumination
Photoperiod:	16 h light, 8 h dark
Size of test vessel:	30 mL (minimum)
Volume of test solution:	15 mL (minimum)
Age of test organisms:	<24 h old
No. of animals/test vessel:	5
No. of replicates/concentration:	4
No. of organisms/concentration:	20 (minimum)
Feeding regime:	None (feed prior to test)
Aeration:	None
Dilution water:	Upstream receiving water; if no upstream flow, synthetic water modified to reflect effluent hardness.
Endpoint:	Mortality (Statistically significant difference from upstream receiving water control at $p \leq 0.05$)
Test acceptability criterion:	90% or greater survival in controls

Test conditions for (Pimephales promelas):

Test duration:	48 h
Temperature:	25 ± 2°C
Light Quality:	Ambient laboratory illumination
Photoperiod:	16 h light/ 8 h dark
Size of test vessel:	250 mL (minimum)
Volume of test solution:	200 mL (minimum)
Age of test organisms:	1-14 days (all same age)
No. of animals/test vessel:	10
No. of replicates/concentration:	4 (minimum) single dilution method 2 (minimum) multiple dilution method
No. of organisms/concentration:	40 (minimum) single dilution method 20 (minimum) multiple dilution method
Feeding regime:	None (feed prior to test)
Aeration:	None, unless DO concentration falls below 4.0 mg/L; rate should not exceed 100 bubbles/min.
Dilution water:	Upstream receiving water; if no upstream flow, synthetic water modified to reflect effluent hardness.
Endpoint:	Mortality (Statistically significant difference from upstream receiving water control at $p \leq 0.05$)
Test Acceptability criterion:	90% or greater survival in controls

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
FACT SHEET

This Fact Sheet explains the applicable regulations, rationale for development of this permit and the public participation process.

NPDES PERMIT NUMBER: MO-0092754

FACILITY NAME: Findett Corporation

OWNER NAME: Manuel Joachim

LOCATION: Sec. 23, T47N, R4E, St. Charles County

RECEIVING STREAM: Tributary to Dardenne Creek

FACILITY CONTACT PERSON: Steve Burian

TELEPHONE: (314) 946-2355

FACILITY DESCRIPTION AND RATIONALE

The Findett Corporation, No. 8 Governor Drive, St. Charles, Missouri 63301 has applied for reissuance of the State Operating Permit MO-0092754. The company is involved in the manufacture of specialty chemicals. The applicable Standard Industrial Classification (SIC) Code for this facility is 2869. The facility has five permitted outfalls as follows:

Outfall #001: Discharge from two settling basins operated in series with capacities of 2,000 gallons and 2,300 gallons, respectively these basins receive essentially non-contact cooling water along with steam condensate and wastewater from the plant sink and floor drains. Average flow is 4,500 gallons per day.

Outfall #002: Discharge of boiler blowdown. This discharge is not expected to reach the creek under dry weather conditions. Average daily discharge is 30 gallons per day.

Outfall #003: This outfall no longer exists.

Outfall #004: Discharge of storm water from the northwest tank farm diked area with an average discharge of 106 gallons per day.

Outfall #005: Discharge of storm water from the northeast tank farm diked area with an average discharge of 162 gallons per day.

Outfall #006: Discharge of storm water from the fuel tank containment area. Water is periodically pumped out to keep the containment empty. The average discharge is 34 gallons per day.

Outfall #007: Discharge stormwater from loading dock area. The average discharge is 1,766 gallons per day.

All above described outfalls discharge to a wet weather tributary to Dardenne Creek in the Peruque Dardenne Creeks Basin. The discharges are located in the NW ¼, SE ¼, of Section 23, T47N, R4E, St. Charles County, Missouri.

10 CSR 20-7.031 Missouri Water Quality Standards, Missouri Department of Natural Resources (the Department) defines the Clean Water Commission's water quality objectives in terms of water uses to be maintained and the criteria to protect those uses. For Dardenne Creek at the points of these discharge outfalls, the Water Quality Standards list the following uses to be maintained: livestock watering, wildlife watering, protection of aquatic life and boating. Dardenne Creek is not classified as a protected stream at the points of these discharge outfalls.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
FACT SHEET

Findett Corporation
MO-0092754

In order to protect these beneficial uses and the water quality of the Dardenne Creek, effluent limitations are being established under federal and state laws. Guided by the Effluent Regulations and the Water Quality Standards, the Department has established the limitations noted in the draft permit. Federal Effluent Guidance Documents are not applicable to these discharges. Therefore, the limitation proposed in this draft permit have been established by the permit writer based on the expired permit and "best professional judgment".

The monitoring requirements for all parameters have been established by the Department in compliance with 10 CSR 20-7.015 Effluent Regulation.

The standard conditions attached to the draft permit are applied to all state operating permittees. They reflect requirements of federal (40 CFR 122) and state law (10 CSR 20-Chapter 6) with respect to state operating permittee duties, responsibilities and liabilities.

This permit will expire five (5) years from the date of issuance.

PUBLIC PARTICIPATION

Public comments on the proposed permit are being requested in accordance with Public Participation regulation under 10 CSR 20-6.020.

A copy of the public notice and this fact sheet are being forwarded to the applicant, the District Engineer of the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Environmental Protection Agency and the Missouri Department of Conservation. Other interested individuals may obtain a copy on request by writing to the address listed below for comment letters.

Comments should be confined to the issues relating to the proposed action and permit and their effect on water quality. The Missouri Department of Natural Resources may not consider comments or objections to a permit based on questions of zoning, location, or other non-water quality issues. See, Curdt v. MO Clean Water Commission, 586 S.W. 2d 58 (Mo. App. 1979).

The proposed determinations of the draft permit are tentative pending the public notice process.

Persons wishing to comment upon or object to the proposed determinations are invited to submit them in writing to: Department of Natural Resources, Division of Environmental Quality, (Missouri Clean Water Commission), P.O. Box 176, Jefferson City, Missouri 65102, ATTN: Daniel R. Schuette, Chief of Permit Section. Please include the permit number of the draft permit in all comment letters.

Within 30 days from the public notice date, as listed on page one, all water quality comments received will be considered in the formulation of all final determinations regarding this application. If response to the public notice indicates significant public interest, a public hearing may be held after due notice. Public hearing and/or issuance of the NPDES permit will be processed according to 10 CSR 20-6.020.

Copies of all draft permits, comments and other information are available for inspection and copying at the Department of Natural Resources, Division of Environmental Quality, (Missouri Clean Water Commission) Water Pollution Control Program, P.O. Box 176, 205 Jefferson Street, Jefferson City, MO 65102.

FACT SHEET
Findett Corporation
MO-0092754

PERMIT REGULATIONS

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollutant Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States. 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. NPDES permits in Missouri are issued by the Director of the Department of Natural Resources under an approved NPDES program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended).

WATER QUALITY STANDARDS

10 CSR 20-7.031 Missouri Water Quality Standards, Missouri Department of Natural Resources (the Department) "defines the Clean Water Commission's water quality objectives in terms of water uses to be maintained and the criteria to protect those uses".

EFFLUENT LIMITATIONS

In order to protect these beneficial uses and the water quality of surface waters and groundwater, effluent limitations are being established under federal and state laws. The monitoring requirements for all parameters have been established by the Department in compliance with 10 CSR 20-7.015 Effluent Regulation.

The current Department effluent regulations 10 CSR 20-7.015 states that non-domestic waste discharges "shall meet the applicable control technology currently effective or that which will become effective during the life of the permit. Where this definition is not available or applicable the Department shall set specific parameter limitations using best engineering judgment as defined in 402(a)(1) of the Federal Clean Water Act".

STANDARD CONDITIONS

The standard conditions attached to the draft permit are applied to all NPDES permittees. They reflect requirements of federal (40 CFR 122) and state law (10 CSR 20-Chapter 6) with respect to NPDES permittee duties, responsibilities and liabilities.