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July 29, 2013

NPDES/Pretreatment Section
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

Ref: Toxic Organic Management Plan

To whom it may concern:

Enclosed please find our Toxic Organic Management Plan for your review along with two drawings, Exhibit No. 1 and Exhibit No. 2.

Sincerely,

ROACH MANUFACTURING CORPORATION

G. W. Roach, Jr.
President

GWR/st

Enclosures: TOMP
Exhibits No. 1 and No. 2

Building quality conveyors since 1953.

Toxic Organic Management Plan

Roach Manufacturing Corporation
808 Highway 463 North
Trumann, Arkansas

Prepared for:
NPDES/Pretreatment Section
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas

July 2013

I. Description of Facilities and Solvent Use

A. Process Description

The Roach Manufacturing Corporation (RMC) plant located in Trumann, Arkansas manufactures a variety of specialty conveyors, both gravity and powered types. The plant produces a broad product lineup and is continually expanding its line of package, pallet, and floor conveyors. The RMC facility features complete system integration, including design, build, and working closely with distributors to produce a mix of standard product lines and highly-specialized units. Complete gravity conveyor systems include steel/aluminum frames and steel and/or aluminum rollers. Powered conveyor systems also include gear boxes, belts, bearings, motors, wiring, and controls.

Purchased raw materials include various standard shapes and sheets of steel and aluminum and resin for plastic injection molding. For the most part, all other conveyor components, such as motors, belts, gear boxes, wiring, and controls, are purchased. All manufactured and purchased components are assembled to produce complete conveyor systems.

Exhibit No. 1 shows the location of various plant operations. The manufacturing and assembly operations include metal fabrication (cutting, forming, punching, welding), machine shop (turning and milling of round/square stock), metal parts washing (phosphatizing), powder-coat painting, plastic injection molding, roller cutting and assembly, pulley assembly, electrical assembly, power conveyor assembly, and gravity conveyor assembly. Other related operations include maintenance for forklifts and housekeeping for both manufacturing and office areas.

Exhibit No. 2 shows the location of all sewer service points and the plant's gravity sewer system which discharges to the City of Trumann wastewater treatment facilities. Some of the sanitary sewer lines existed prior to construction of the plant buildings, and thus, they are located under the plant floors. There are no floor drains in the manufacturing areas, but floor drains do exist in the bathrooms. Thus, the only direct connections to the city sewer system are the plant bathrooms, hand wash stations, water fountain drains, and the four phosphatizing washer tanks. The only wastewaters discharged to the city sewer system are discharges from the regulated phosphatizing operation, sanitary sewage, and housekeeping wastewaters. If spills occur in the manufacturing area, they are contained, absorbed, and disposed off-site by landfill.

B. Identification of Toxic Organic Chemicals Entering the Plant Wastewaters

1. Chemical Analysis of Process Wastewaters

Samples of the plant's regulated wastewater discharge (phosphatizing/washing) have been collected approximately every six months since May 10, 2010, and the results have

been submitted to the Arkansas Department of Environmental Quality (ADEQ) as part of the semi-annual reporting requirements for RMC. These samples have been analyzed for the 110 toxic organics regulated under the metal finishing categorical pretreatment standards using EPA approved Methods 608, 624, and 625. Grab samples were collected from each of the four process tanks just prior to routine dumping and cleaning which occurs about once every three months. The four grab samples were composited by the laboratory (ETC in Memphis, TN) based on tank volumes prior to analysis.

The first samples collected on May 10, 2010 indicated a low level of **Chloroform** (1.72 µg/l), **Methylene Chloride** (13.2 µg/l), **Bis (2-ethylhexyl) phthalate** (385 µg/l), and **1,2-Diphenylhydrazine** (11.9 µg/l). However, the laboratory reported that Methylene Chloride was detected in the method blank. The next semiannual samples collected on September 15, 2010 and February 10, 2011 also indicated low levels of **Bis (2-ethylhexyl) phthalate** (167 and 162 µg/l, respectively), but no other toxic organics were detected. An investigation and review of the plant's Material Safety Data Sheets (MSDS) in 2010/11 failed to show the source of this compound. Analysis of the subsequent four semiannual samples collected since February 10, 2011 and last collected on March 19, 2013 indicated that **Bis (2-ethylhexyl) phthalate** and all other toxic organics were not present in concentrations above the detection limits of the tests.

2. Identification of Toxic Organics Used in Manufacturing Operations

The MSDS for all products (135 total) purchased and used onsite by RMC were reviewed by Dr. R. C. Clift in May 2013 and compared to the list of 110 regulated toxic organic compounds. This review indicated that several regulated toxic organic compounds are used in the manufacturing operations. A summary of the compounds is given below and a description of control measures is given in the following section.

- a. The Pulley Making Department uses UltraFlush which contains a small amount of **Phenol** (< 25 ppm). This department also uses Cone Solvent which contains **Methylene Chloride** and **Perchloroethylene**.
- b. The Assembly Department uses Flat Cold Galvanizing Compound which contains **Toluene** and **Ethylbenzene**. This department also uses touchup spray paints that contain **Toluene**, **Ethylbenzene**, **Xylene**, and **Methyl Ethyl Ketone**.

3. Identification of Other Potential Sources of Toxic Organic Compounds Introduced to the City Sewer System

There are no other potential sources of toxic organic compounds introduced to the city sewer system. Accidental spills can occur in manufacturing areas, but there are no floor drains connected to the city sewer. Any spillage is contained, absorbed, and disposed off-site. Housekeeping wastewaters are discharged to the city sewer, but the review of MSDS for cleaning products indicated no regulated toxic organic compounds are present in these products.

II. Description of Control Measures

A. Chemical Substitution

The plant has a standing practice of reviewing MSDS for new products that are considered for use in the manufacturing operations and for housekeeping. Mr. Larry Cossey is responsible for reviewing the MSDS for new products at least annually and comparing the composition listed by the MSDS with the list of the 110 regulated toxic organics. If new products contain regulated compounds, these products are not purchased and substitute products are found.

Cone Solvent is currently being used in the Pulley Making Department as described below. This product is now under review and RMC has plans to replace this product as soon as practical.

B. Pulley Making Department

The Pulley Making Department uses UltraFlush which contains **Phenol** (<25ppm). UltraFlush is purchased in 5-gallon containers, and the Pulley Department uses approximately 15 gallons each year.

UltraFlush is used to flush the lines on the application machine for ribbon flow material about 3 or 4 times each year. Ribbon flow material provides a coating on pulleys to increase contact friction (gripping) for belts. A black colored material is used daily, but occasionally, an orange colored material is used. Since it is not used often, the orange colored material sits in the lines and can harden quickly. Thus, most flushing is to remove the orange ribbon flow material.

To flush the lines, the suction end of the line on the application machine is removed and placed in a 5-gallon container of UltraFlush. UltraFlush is then pumped by the machine through the lines, and the discharge end of the line is placed in a 270 gallon tote tank. The tote tanks are held for pick up and off-site disposal of flushing wastes by Safety-Kleen. As the lines are flushed, there is a small potential for spillage. When this occurs, any spillage is contained; safety absorbent is applied and dried; and the solid waste is disposed off-site by landfill. A portable spill kit is kept in the Pulley Making Department area in case of spillage.

The Pulley Making Department also uses Cone Solvent which contains 70-80% **Methylene Chloride** and 15-25% **Perchloroethylene**. Cone Solvent is purchased in 55-gallon drums, and the Pulley Making Department uses approximately 3 drums each year. Only one drum is purchased at a time and the drum is kept in the Pulley Making Department area.

Cone Solvent is used for miscellaneous cleaning of pulley components to remove grease, oils, and dust. Cleaning is performed by hand using a cloth with a small amount of Cone Solvent. A hand-crank pump is mounted on the drum and remains in the drum until the contents have been used. Empty drums are picked up by the solvent supplier. To dispense the solvent, a small amount is placed in a dispensing bottle which is used to apply solvent to the cleaning cloth.

Because the Cone Solvent evaporates rapidly, minimal (if any) residual remains after drying. Used wipe cloths are placed in a drum that is held for pickup and off-site disposed by Safety-Kleen. There is also a small potential for spillage of Cone Solvent during use. Any spillage would be contained, cleaned up with absorbent, and placed in the drum for used wipe cloths for disposal.

C. Assembly Department

The Assembly Department uses Flat Cold Galvanizing Compound which contains **Toluene and Ethylbenzene**. This product is used in very small amounts to touch-up welds on galvanized parts after fabrication. The product is purchased in a 20 ounce aerosol can and only two cans were used in 2012. Galvanized parts are not painted, and thus, are not put through the parts washer prior to the painting operation. Empty containers of the product are punctured, allowed to air dry, and are then disposed by landfill. As the product is applied to the welds, the volatile organic compounds evaporate, and thus, the organic compounds have no means of entering the city sewer. There is no potential for spillage of this product.

The Assembly Department also uses touchup spray paints that contain **Toluene, Ethylbenzene, Xylene, and Methyl Ethyl Ketone**. Small cans (16-20 ounce) of spray paint are used to touch up areas on parts not covered adequately by the paint line. Approximately 260 cans of various colors of paint were purchased in 2012. As the paints are applied, the volatile organic components evaporate. Empty cans of spray paint are punctured, dried, and disposed by landfill. There is no potential for spillage of this product.

III. Toxic Organic Management Plan

A. Chemical Substitution

The plant has a standing practice of reviewing MSDS of new products that are considered for use in the manufacturing operations and for housekeeping. This practice is described above in section II.A. Products that evaporate and that are non-hazardous are preferred. If products contain regulated compounds, these products are generally not purchased and substitute products are found. An example is the review that is currently taking place to find a substitute chemical for Cone Solvent.

B. Product Storage Procedures

All liquid products (mostly cutting/cooling fluids, hydraulic fluids, and oils) are stored in the warehouse portion of the plant. There are no floor drains connected to the sewer system in the warehouse area of the plant. A portable spill kit is located in the warehouse area. RMC does not use large quantities of liquid products in manufacturing areas. As chemicals, paints, and other liquid products are needed, they are brought in the smallest container possible to the area where used.

C. Spent Chemical Disposal Practices

Waste oils, lubricants, and other petroleum-based used liquids are stored on-site in an elevated 500 gallon storage tank. The waste oils are periodically removed from the tank by RS Used Oil Services, Inc. of Olive Branch, MS for recycling.

Spent containers of UltraFlush, touchup spray paints, and other small liquid products are disposed along with other plant trash including plastics and office wastes. These materials are removed and disposed by Marc Recycling of Jonesboro, AR. Clean cardboard is bailed for sale to a local recycler, and recycled paper is donated to a recycler in Jonesboro, AR. Empty drums and 5-gallon containers of hydraulic fluids and oils are reused for various purposes as needed. Empty drums of Cone Solvent are picked up by the supplier.

D. Training

Annual safety meetings are held with all plant personnel and new employees. Mr. Kevin Hazelwood, Human Resources Manager, is the plant safety coordinator, and he provides a document covering applicable safety procedures, including handling and use of products containing toxic organics. Department supervisors are responsible for providing more detailed instructions to all personnel in their department and for ensuring the proper procedures are used. During these department safety meetings, plant personnel are reminded of standard practices for handling, cleanup, and disposal of all wastes in the department. Supervisors and personnel working in the Pulley Making Department and the Assembly Department sign the form included in Appendix A to document that they are aware of the proper procedures for handling products containing toxic organics and that these compounds are not to enter the sewer system.

E. Inspections

Department supervisors are responsible for daily inspections and cleanup of their assigned areas. Supervisors verify that chemical use and cleaning procedures adhere to this Toxic Organic Management Plan and that toxic organics do not enter the plant sewer system.

The warehouse area is inspected monthly by the plant safety coordinator to verify proper storage of raw materials and liquids. A log of inspections and sign-off will be maintained by the safety coordinator. Plant management personnel are routinely in the manufacturing and warehouse areas and conduct inspections to ensure that the plant practices are being implemented so as to minimize spillage and keep areas clean.

F. Implementation

All provisions of this plan will be fully implemented by August 1, 2013.

IV. Certification

Based on my inquiry of the person or persons directly responsible for managing compliance with the TTO limitations, I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last report. I further certify that this facility is implementing this toxic organic management plan submitted to the Control Authority on July 31, 2013.



G. W. Roach, Jr.
President
Roach Manufacturing Corporation
870-483-7631

Appendix A

Personnel Training for
Proper Use and Disposal of Products Containing
Regulated Toxic Organics

**TRAINING VERIFICATION FORM
PULLING MAKING DEPARTMENT**

UltraFlush contains <25 ppm **Phenol** and Cone Solvent contains 70-80% **Methylene Chloride** and 15-25% **Perchloroethylene**. These organic compounds are regulated under the metal finishing categorical pretreatment standards by EPA. It is imperative that you understand rules and regulations relating to the usage and disposal of these products and their containers.

UltraFlush is only to be used to flush lines of the application machine for ribbon flow material as directed by the department supervisor. During the use of UltraFlush, it must be understood that none of the product or the flushing residue must ever enter the plant sewer system or the parts washer prior to painting. Flushing residue is to be pumped directly into 270 gallon totes for pick up and off-site disposal by the approved contractor.

Cone Solvent is only to be applied in small quantities to cloth wipes for cleaning of parts to remove oils, grease, and dust as directed by the department supervisor. During the handling and use of Cone Solvent, it must be understood that none of the product, spillage, or residue must ever enter the plant sewer system or the parts washer prior to painting. Used wipe cloths must be returned to the department supervisor for proper disposal.

I have received instructions on the proper use, handling, cleanup, and disposal of UtraFlush and Cone Solvent, and I understand my responsibilities related to these products.

Name: _____ Date: _____

Name: _____ Date: _____

Name: _____ Date: _____

Name: _____ Date: _____

Name: _____ Date: _____

Name: _____ Date: _____

Name: _____ Date: _____

Name: _____ Date: _____

**TRAINING VERIFICATION FORM
ASSEMBLY DEPARTMENT**

Flat Cold Galvanizing Compound contains less than 20% **Toluene** and 1% **Ethylbenzene**. Touch-up spray paints contain a high percent by weight of **Toluene, Ethylbenzene, Xylene, and Methyl Ethyl Ketone**. These organic compounds are regulated under the metal finishing categorical pretreatment standards by EPA. It is imperative that you understand rules and regulations relating to the usage and disposal of these products and their containers.

Flat Cold Galvanizing Compound is only to be used to touch-up welds on galvanized parts after fabrication. Touch-up spray paints are only to be used to touch-up areas on parts not covered adequately by the paint line. During the use of these products, it must be understood that none of the product must ever enter the plant sewer system or the parts washer prior to painting. Empty aerosol cans must be punctured, allowed to dry, and then disposed as directed by the department supervisor.

I have received instructions on the proper use, handling, cleanup, and disposal of Flat Cold Galvanizing Compound and touch-up spray paints, and I understand my responsibilities related to these products.

Name: _____ Date: _____

Name: _____ Date: _____

Name: _____ Date: _____

Name: _____ Date: _____

Name: _____ Date: _____

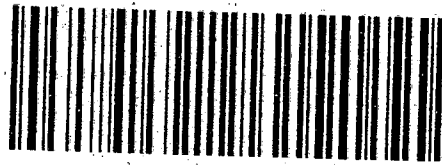
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**MAP(S)/PLAN(S) SCANNED IN
SEPARATE FILE**

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