Mylotta, Pamela A - DNR

From: Rice, John <JRice@trcsolutions.com>
Sent: Friday, August 10, 2012 10:30 AM
To: Lilek, Christine F - DNR
Cc: Mylotta, Pamela A - DNR; Turpin, Paul; O'Connell, Theodore
Subject: JCI - Humbolt Ave - WPDES permit application
Attachments: Former JCI WPDES_Contaminated GW from Remedial Action Operations_August 2012 _.pdf; MSDS_persulfate.pdf; msds_sodium hydroxide.pdf

Chris and Pam
I have attached a copy of the WPDES permit application that we submitted to the following address in hard copy.

Department of Natural Resources,
Water Permits Central Intake - WT/3,
P.O. Box 7185,
Madison, WI 53707-7185.

I have also attached copies of the MSDS sheets for sodium persulfate and sodium hydroxide (the two parts of the injected solution) with this email. Pam, I will submit the injection checklist to you shortly. Please let me know if there will be anything else that you will need to complete your review.
Thanks,
--John

John M Rice, PE, PH
Senior Hydrologist

TRC
Results you can rely on

708 Heartland Trail, Suite 3000 Madison, WI 53717
T: 608.826.3655 | F: 608.826.3941 | C: 608.335.1594
jrice@trcsolutions.com
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Date Received _____
(Leave blank)

Request for Coverage Under
Wisconsin Pollutant Discharge Elimination System (WPDES)
Wastewater Discharge Permit (WI-0046566-06) for
Contaminated Groundwater from Remedial Action Operations

(Revised 8 / 2012)

Please type or print required information, except for the signature.

I. GENERAL INFORMATION

A: FACILITY LOCATION INFORMATION	
Name of Facility / Project **former JCI Humboldt Avenue**	Official Representative Onsite Title **Brian Darling, Operations Manager for Tramont Corp.**
(Address or Highway / Road with Distance and Direction from nearest City) **3713 N. Humboldt Avenue**	Telephone No.: Fax # **(414) 967-8800**
City, State, Zip Code **Milwaukee, WI 53212**	County Email Address **Milwaukee**

B: **Individual, parent company, or organization with direct control over the facility.** Enter full official legal name of the owner or parent company, if there is one, the mailing address, and the name and title of the official representative (responsible party) signing this application if he/she is located at address of parent company.	
Parent Company/Owner **Johnson Controls Automotive Group**	Company Contact Title **Michael Stoelton, Director of Environmental Affairs**
Mailing Address - PO Box, Street, or Route **49200 Halyard Drive**	Telephone No.: Fax # **(734) 254-5657** **(734) 254-7899**
City, State, Zip Code **Plymouth, MI 48170**	Email Address **Michael.L.Stoelton@jci.com**

C: Consulting Firm for Groundwater	
Company Name **TRC Environmental Corporation**	Company Contact Title **Paul Turpin, Project Manager**
Mailing Address - PO Box, Street, or Route **708 Heartland Trail, Suite 3000**	Telephone No.: Fax # **(608) 826-3662** **(608) 826-3941**
City, State, Zip Code **Madison, WI 53717**	Email Address **pturpin@trcsolutions.com**

D. **Name of Person to Receive Discharge Monitoring Report Forms** from Department:
John Rice (608) 826-3655

E. **Any Other Necessary Contact Person** (name, phone, email)
NA

F. **DNR Environmental Response & Repair Project Number, and DNR Project Manager name:**
BRRTS No. 02-41-174495 Pamela Mylotta

II. SPECIFIC INFORMATION ON PROJECT

A. Pollutants

1. The suspected **sources of the pollutants** (estimate of material release quantity and contributing activities)

Historic trichloroethene (TCE) solvent released from parts cleaning/degreasing. Unknown quantity.

2. Check **all fuel and waste types** suspected in the contamination at this site:

- ☐ Unleaded Gasoline
- ☐ Leaded Gasoline
- ☐ Diesel Fuel
- ☐ Heating Oil
- ☐ Jet Fuel
- ☐ Waste Oil
- ☑ Solvents **(TCE)**
- ☐ Other:
- ☐ Pesticides
- ☐ Fertilizers

3. Check **all pollutants identified at this site:**

- ☐ BETX (Benzene, Ethylbenzene, Toluene, Xylene)
- ☐ PAHs (Polynuclear aromatic hydrocarbons)
- ☑ VOCs (Volatile Organic Chemicals)
- ☐ Pesticides/Fertilizers
- ☐ Total Recoverable Lead *
- ☐ Other_____

* Include upstream receiving water hardness analysis if lead is detected.

B. Treatment

1. **Describe the existing treatment system:**

5,200 gallons of sodium persulfate solution will be injected into the shallow groundwater. The solution will be injected through Geoprobe rods at approximately 26 locations from a depth of 5 feet to 15 feet below ground surface. No groundwater will be removed and no pollutants will be introduced. See attached workplan for details.

Treatment Techniques Used

- ☑ Pump & Treat
  - ☑ Air stripping
  - ☐ GAC (Granular Activated Carbon)
- ☐ Augmented Insitu Bioremediation (with chemicals or nutrient addition)
- ☐ Other (describe)

2. **If any cleaning, softening or descaling of the treatment system**

a. Identify any additives that are proposed or being used for cleaning, softening, or descaling of the treatment system. Provide Material Safety Data Sheets, and describe dosage.

NA

b. Describe what is done to clean, soften or descale, and how often it is done.

NA

c. Where is the reject water from cleaning and descaling discharged? **NA**

☐ same discharge point as treated effluent ☐ sanitary sewer ☐ other (please describe)

3. **Anticipated operating schedule** during the new permit term (2012 – 2017)

September - October 2012

4. **Anticipated flowrate** (in gpm), and total volume of treated water to be discharged per month:

2 - 5 gpm during injection into ground (no discharge to surface water)

5. **Effluent discharge point location**:
No water will be discharged. Treatment solution will be introduced through injection wells into the ground (see workplan for details).

6. Is an **air permit** from the DNR air management program required? If not, why not

No. No air emissions.

III. DISCHARGE MANAGEMENT PLAN UPDATE

Include the following information:

1. A **summary** of analytical results for contaminants **detected** at the site.
   (Attached)
2. Results from the most recent **volatile organic compounds (VOC) scan**, including methods used and detection levels.
   (Attached)
3. Results from an analysis of the **poly-nuclear aromatic hydrocarbons (PAHs)** shown on the right, including methods used and detection levels (unless PAH data are already submitted)

benzo(a)anthracene	dibenzo(a,h)anthracene
benzo(a)pyrene	fluoranthene
benzo(b)fluoranthene	indeno(1,2,3-cd)pyrene
benzo(g,h,i)perylene	naphthalene
benzo(k)fluoranthene	phenanthrene
chrysene	pyrene

   The lab needs to reach the lowest detection level achievable for each parameter because of the low limit for total PAHs. EPA test method SW-846 8310 is recommended.
   NA
4. **Contaminants proposed for periodic monitoring** and demonstration of why any monitoring required in the permit should be exempted due to low level of contaminants in the wastewater discharge.
   No wastewater discharge. Groundwater monitoring is in the workplan.
5. **Information to support request for any alternate effluent limit** for discharges to groundwater (Part 5 of permit) or request for temporary exemption for in-situ discharges (Part 6 of permit).
   The MSDS sheets for the treatment additives are attached.
6. **Plans and specifications for the proposed treatment system** identifying sampling points. For supplier furnished package treatment units, only a flow diagram, design summary, and unit sizing calculations are required.
   See workplan.
7. **General description of operations**, identifying operational tasks, who is responsible to do that task, and how frequently the task is done (particularly needed at pump & treat systems).
   See workplan.
8. A **site plan** that identifies general land uses, underground storage tanks and pipelines, groundwater monitoring and recovery wells, contaminant plume definition and zone of influence, other known spills in the area, septic tanks and drain fields, separation distances to potable water supply wells and residences, and other pertinent information.
   See workplan.
9. A **detailed map** of the discharge location, showing if discharge is direct or via a storm sewer or other conveyance. Indicate distance from site to discharge location and other impacted water bodies or wetlands.
   - If a city storm sewer is used, approval from the municipality is required.
   - If a new outfall structure is proposed, the plans should identify the outfall and incorporate appropriate erosion control methods. A permit for riprap projects (available at most DNR offices) should be obtained.
   - Wetland discharges are not allowed unless they meet wetland protection requirements of Ch. NR 103, Wis. Admin. Code.

   See workplan.

III. SIGNATURES

A. Signature of person completing the form, attesting to the accuracy and completeness of the statements made.

Name	Title	Date Signed
	Hydrologist	

Address	Email	Telephone Number
708 Heartland Trail, Suite 3000; Madison, WI	jrice@trcsolutions.com	(608) 826-3655

B. This application must be signed by the official representative of the permitted facility (responsible party) who is: the owner, the sole proprietor for a sole proprietorship, a general partner for a partnership, or by a ranking elected official or other duly authorized representative for a unit of government, or an executive officer of at least the level of vice president for a corporation, having overall responsibility for the operation of the facility. If the application is not signed, or is found to be incomplete, it will be returned.

Typed or Printed Name of Official Representative	Title
Paul Turpin for Michael Stoelton	Director of Environmental Affairs

Signature of Official Representative	Date Signed
	8/9/12

Submit this General Permit Request for Coverage:

Department of Natural Resources,
Water Permits Central Intake - WT/3,
P.O. Box 7185,
Madison, WI 53707-7185.

The decision on whether to cover this discharge under the remediation general permit will be made by regional DNR wastewater staff. Upon receipt in Madison, this application will be forwarded to the appropriate regional staff person.

A copy of the submittal should also be sent to the Department Remediation & Redevelopment Project Manager.
Watershed Central:\General Permits\Reissue Docs\Grw Remediation\Request For Coverage 2012.doc

Table 4
Summary of Groundwater Monitoring Analytical Results
Former Johnson Controls, Inc. - Humboldt Facility
3713 North Humboldt Boulevard
Milwaukee, Wisconsin

WELL ID	DATE	NR 140 (µg/L)	BENZENE	1,2,4-TRI-METHYL-BENZENE	1,3,5-TRI-METHYL-BENZENE	TRIMETHYL-BENZENE (total)	ETHYL-BENZENE	NAPH-THALENE	O-XYLENES	M-, P-XYLENES	XYLENES (total)	TOLUENE	TRI-CHLORO-ETHENE	METHYL TERT-BUTYL ETHER (MTBE)
		ES	5	NS	NS	480	700	40	NS	NS	10,000	1,000	5	60
		PAL	0.5	NS	NS	96	140	8	NS	NS	1,000	200	0.5	12
MW01	7/29/1999		<0.1	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.3
	9/30/1999		<0.1	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.3
	2/7/2000		<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.2	<0.2	<0.2	<0.2	<0.3
	4/9/2002		<0.1	<0.2	<0.3	<0.3	<0.1	<0.7	<0.1	<0.2	<0.2	<0.1	<0.3	<1.1
	9/30/2002		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	<0.5	<0.5
	4/10/2003		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	0.61	<0.6	<0.5
	4/21/2004		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	0.61	<0.6	<0.5
	12/12/2005		<0.4	<0.4	<0.5	<0.5	<0.5	<0.6	<0.4	<1.0	<1.0	<0.4	<0.15	<0.6
MW02	7/29/1999		0.2 (J)	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.3
	9/30/1999		0.2 (J)	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.3
	2/7/2000		<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.2	<0.2	<0.2	*1*	<0.3
	4/9/2002		<0.1	<0.2	<0.3	<0.3	<0.1	<0.7	<0.1	<0.2	<0.2	<0.1	<0.3	<1.1
	9/30/2002		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	<0.6	<0.5
	4/10/2003		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	0.62	<0.6	<0.5
	4/21/2004		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	0.62	<0.6	<0.5
	12/12/2005		<0.4	<0.4	<0.5	<0.5	<0.5	<0.6	<0.4	<1.0	<1.0	<0.4	<0.15	<0.6
MW03	7/29/1999		<0.1	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.3
	9/30/1999		0.1 (J)	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.3
	2/7/2000		<0.1	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.3
	4/9/2002		<0.1	<0.2	<0.3	<0.3	<0.1	<0.7	<0.1	<0.2	<0.2	<0.1	<0.3	<1.1
	9/30/2002		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	<0.6	<0.5
	4/10/2003		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	0.5	<0.6	<0.5
	4/21/2004		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	0.5	<0.6	<0.5
	12/12/2005		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	6/27/2006		<0.4	<0.5	<0.4	<0.5	<0.5	<0.7	<0.6	<0.9	<0.9	0.4	<0.15	<0.4

Table 4 (continued)
Summary of Groundwater Monitoring Analytical Results
Former Johnson Controls, Inc. - Humboldt Facility
3713 North Humboldt Boulevard
Milwaukee, Wisconsin

WELL ID	DATE	NR 140 (µg/L)	BENZENE	1,2,4-TRI-METHYL-BENZENE	1,3,5-TRI-METHYL-BENZENE	TRIMETHYL-BENZENE (total)	ETHYL-BENZENE	NAPH-THALENE	O-XYLENES	M-, P-XYLENES	XYLENES (total)	TOLUENE	TRI-CHLORO-ETHENE	METHYL TERT-BUTYL ETHER (MTBE)
		ES	**5**	**NS**	**NS**	**480**	**700**	**40**	**NS**	**NS**	**10,000**	**1,000**	**5**	**60**
		PAL	**0.5**	**NS**	**NS**	**96**	**140**	**8**	**NS**	**NS**	**1,000**	**200**	**0.5**	**12**
MW04A	2/8/2000		<0.1	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.3
	2/17/2000		0.26	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.2	<0.2	0.2 (J)	<0.2	<0.3
	4/9/2002		<0.1	<0.2	<0.3	<0.3	<0.1	<0.7	<0.1	<0.2	<0.2	<0.1	*1.5*	<1.1
	9/30/2002		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	*1.1*	<0.5
	4/10/2003		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	<0.6	<0.5
	4/21/2004		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	*0.89*	<0.5
	10/13/2004		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	<0.6	<0.5
	6/27/2005		<0.4	<0.4	<0.5	<0.5	<0.5	<0.6	<0.4	<1.0	<1.0	<0.4	*0.54*	<0.6
	12/12/2005		<0.4	<0.4	<0.5	<0.5	<0.5	<0.6	<0.4	<1.0	<1.0	<0.4	0.25	<0.6
	6/27/2006		<0.4	<0.5	<0.4	<0.5	<0.5	<0.7	<0.6	<0.9	<0.9	<0.4	*0.75*	<0.4
	8/16/2007		<0.16	<0.24	<0.19	<0.24	<0.28	<0.6	<0.5	<0.5	<0.5	<0.2	0.2	<0.23
	8/26/2008		<0.16	<0.24	<0.19	<0.24	<0.28	<0.6	<0.5	<0.5	<0.5	<0.2	0.43	<0.23
	9/17/2009		<0.16	<0.24	<0.19	<0.24	<0.28	<0.6	<0.5	<0.5	<0.5	<0.2	*0.5*	<0.23
	12/15/2009		<0.16	<0.24	<0.19	<0.24	<0.28	<0.6	<0.5	<0.5	<0.5	<0.2	0.36	<0.23
	6/7/2010		<0.19	<0.20	<0.23	<0.23	<0.22	<0.4 A	<0.24	<0.5	<0.5	<0.22	*0.56**	<0.29
	12/9/2010		< 0.19	<0.20	<0.23	<0.23	<0.22	<0.4	<0.24	<0.5	<0.5	<0.22	*0.37**	<0.29
	6/29/2011		<0.30	<0.30	<0.30	<0.30	<0.29	<0.40	<0.29	<0.60	<0.60	<0.30	*0.88**	<0.30
	11/28/2011		<0.30	< 0.30	<0.30	<0.30	<0.29	<0.40	<0.29	<0.60	<0.60	<0.30	*0.57**	<0.30
	6/25/2012		<0.30	<0.40	<0.40	<0.40	<0.30	<0.30	<0.30	<0.60	<0.60	<0.30	*0.95**	<0.4
MW04B	4/9/2002		<0.1	<0.2	<0.3	<0.3	<0.1	<0.7	<0.1	<0.2	<0.2	<0.1	<0.3	<1.1
	9/30/2002		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	<0.6	<1.0
	4/21/2004		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	<0.6	<1.0
	12/12/2005		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	6/27/2006		<0.4	<0.5	<0.4	<0.5	<0.5	<0.7	<0.6	<0.9	<0.9	<0.4	<0.15	<0.4
	8/16/2007		<0.16	<0.24	<0.19	<0.24	<0.28	<0.6	<0.5	<0.5	<0.5	<0.2	<0.15	<0.23
	12/15/2009		<0.16	<0.24	<0.19	<0.24	<0.28	<0.6	<0.5	<0.5	<0.5	<0.2	<0.15	<0.23
	6/7/2010		<0.19	<0.2	<0.23	<0.23	<0.22	<0.4	<0.24	<0.5	<0.5	<0.22	<0.21	<0.29
	6/29/2011		<0.30	<0.30	<0.30	<0.30	<0.29	<0.40	<0.29	<0.60	<0.60	<0.30	<0.40	<0.30
	11/28/2011		<0.30	<0.30	<0.30	<0.30	<0.29	<0.40	<0.29	<0.60	<0.60	<0.30	<0.40	<0.30
	6/25/2012			<0.40	<0.40	<0.40	<0.30	<0.30	<0.30	<0.60	<0.60	<0.30	<0.50	<0.40

Table 4 (continued)
Summary of Groundwater Monitoring Analytical Results
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3713 North Humboldt Boulevard
Milwaukee, Wisconsin

WELL ID	DATE	NR 140 (µg/L)	BENZENE	1,2,4-TRI-METHYL-BENZENE	1,3,5-TRI-METHYL-BENZENE	TRIMETHYL-BENZENE (total)	ETHYL-BENZENE	NAPH-THALENE	O-XYLENES	M-, P-XYLENES	XYLENES (total)	TOLUENE	TRI-CHLORO-ETHENE	METHYL TERT-BUTYL ETHER (MTBE)
		ES	5	NS	NS	480	700	40	NS	NS	10,000	1,000	5	60
		PAL	0.5	NS	NS	96	140	8	NS	NS	1,000	200	0.5	12
MW05	2/8/2000		<0.1	1.1	<0.1	1.1	<0.1	<0.2	<0.1	<0.2	<0.2	0.49	0.21	<0.3
	4/9/2002		<0.1	<0.2	<0.3	<0.3	<0.1	<0.7	<0.1	<0.2	<0.2	<0.1	<0.3	<1.1
	9/30/2002		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	<0.6	<0.5
	4/10/2003		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	<0.6	<0.5
	4/21/2004		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	<0.6	<0.5
	12/12/2005		<0.4	<0.4	<0.5	<0.5	<0.5	<0.6	<0.4	<1.0	<1.0	<0.4	<0.15	<0.6
	11/6/2006		<0.4	<0.5	<0.4	<0.5	<0.5	<0.7	<0.6	<0.9	<0.9	<0.4	<0.15	<0.4
	2/28/2007		<0.4	<0.5	<0.4	<0.5	<0.5	<0.7	<0.6	<0.9	<0.9	<0.4	<0.15	<0.4
	2/21/2008		<0.16	<0.24	<0.19	<0.24	<0.28	<0.60	<0.50	<0.50	<0.5	1.8	<0.15	<0.23
	6/11/2009		<0.16	<0.24	<0.19	<0.24	<0.28	<0.60	<0.5	<0.5	<0.5	<0.2	<0.15	<0.23
	12/15/2009		<0.16	<0.24	<0.19	<0.24	<0.28	<0.60	<0.5	<0.5	<0.5	<0.2	<0.15	<0.23
	6/7/2010		<0.19	<0.2	<0.23	<0.23	<0.22	<0.4	<0.24	<0.5	<0.5	<0.22	<0.21	<0.29
	6/29/2011		<0.30	<0.30	<0.30	<0.30	<0.29	<0.40	<0.29	<0.60	<0.60	<0.30	<0.40	<0.30
	6/25/2012		<0.30	<0.4	<0.4	<0.40	<0.30	<0.30	<0.30	<0.60	<0.60	<0.30	<0.50	<0.40
MW06	2/8/2000		<0.1	1.1	<0.1	1.1	<0.1	<0.2	<0.1	<0.2	<0.2	0.2	*0.65*	<0.3
	4/9/2002		<0.1	<0.2	<0.3	<0.3	<0.1	<0.7	<0.1	<0.2	<0.2	<0.1	*3.3*	<1.1
	9/30/2002		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	**8.4**	<0.5
	4/10/2003		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	*4.6*	<0.5
	4/21/2004		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	*4.7*	<0.5
	10/13/2004		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	*4.2*	<0.5
	12/12/2005		<0.4	<0.4	<0.5	<0.5	<0.5	<0.6	<0.4	<1.0	<1.0	<0.4	*3.4*	<0.6
	11/6/2006		<0.4	<0.5	<0.4	<0.5	<0.5	<0.7	<0.6	<0.9	<0.9	<0.4	*3*	<0.4
	2/28/2007		<0.4	<0.5	<0.4	<0.5	<0.5	<0.7	<0.6	<0.9	<0.9	<0.4	3.2	<0.4
	2/21/2008		<0.16	<0.24	<0.19	<0.24	<0.28	<0.60	<0.50	<0.50	<0.50	<0.20	*4.4*	<0.23
	6/11/2009		<0.16	<0.24	<0.19	<0.24	<0.28	<0.6	<0.5	<0.5	<0.5	<0.2	*2.4*	<0.23
	12/15/2009		<0.16	<0.24	<0.19	<0.24	<0.28	<0.6	<0.5	<0.5	<0.5	<0.2	*5.0*	<0.23
	6/7/2010		<0.19	<0.2	<0.23	<0.23	<0.22	<0.4	<0.24	<0.5	<0.5	<0.22	2.8	<0.29
	12/9/2010		<0.19	<0.2	<0.23	<0.23	<0.22	<0.4	<0.24	<0.5	<0.5	<0.22	3.2	<0.29
	6/29/2011		<0.30	<0.30	<0.30	<0.30	<0.29	<0.40	<0.29	<0.60	<0.60	<0.30	3.3	<0.30
	11/28/2011		<0.30	<0.30	<0.30	<0.30	<0.29	<0.40	<0.29	<0.60	<0.60	<0.30	*4.8*	<0.30
	6/25/2012		<0.30	<0.40	<0.40	<0.40	<0.3	<0.3	<0.3	<0.6	<0.6	<0.30	*3.6*	<0.40

Table 4 (continued)
Summary of Groundwater Monitoring Analytical Results
Former Johnson Controls, Inc. - Humboldt Facility
3713 North Humboldt Boulevard
Milwaukee, Wisconsin

WELL ID	DATE	NR 140 (µg/L)	BENZENE	1,2,4-TRI-METHYL-BENZENE	1,3,5-TRI-METHYL-BENZENE	TRIMETHYL-BENZENE (total)	ETHYL-BENZENE	NAPH-THALENE	O-XYLENES	M-, P-XYLENES	XYLENES (total)	TOLUENE	TRI-CHLORO-ETHENE	METHYL TERT-BUTYL ETHER (MTBE)
		ES	5	NS	NS	480	700	40	NS	NS	10,000	1,000	5	60
		PAL	0.5	NS	NS	96	140	8	NS	NS	1,000	200	0.5	12
MW07A	2/17/2000		<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.2	<0.2	<0.2	*0.78*	<0.3
	1/29/2002		<0.1	<0.2	<0.3	<0.3	<0.1	<0.7	<0.1	<0.2	<0.2	<0.1	**7.6**	<1.1
	4/9/2002		<0.1	<0.2	<0.3	<0.3	<0.1	<0.7	<0.1	<0.2	<0.2	<0.1	**8.8**	<1.1
	7/2/2002		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	**6.3**	<0.5
	4/10/2003		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	**18**	<0.5
	7/28/2003		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	**11**	<0.5
	10/6/2003		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	**7.8**	<0.5
	2/20/2004		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	**11**	<0.5
	4/21/2004		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	**11**	<0.5
	10/13/2004		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	**9.2**	<0.5
	6/27/2005		<0.4	<0.4	<0.5	<0.5	<0.5	<0.6	<0.4	<1.0	<1.0	<0.4	**10**	<0.6
	12/12/2005		<0.4	<0.4	<0.5	<0.5	<0.5	<0.6	<0.4	<1.0	<1.0	<0.4	**6.4**	<0.6
	6/27/2006		<0.4	<0.5	<0.4	<0.5	<0.5	<0.7	<0.6	<0.9	<0.9	<0.4	**12**	<0.4
	8/16/2007		<0.16	<0.24	<0.19	<0.24	<0.28	<0.6	<0.5	<0.5	<0.5	<0.2	**9.9**	<0.23
	8/26/2008		<0.16	<0.24	<0.19	<0.24	<0.28	<0.6	<0.5	<0.5	<0.5	<0.2	**9.7**	<0.23
	9/17/2009		<0.16	<0.24	<0.19	<0.24	<0.28	<0.6	<0.5	<0.5	<0.5	<0.2	**11**	<0.23
	12/15/2009		<0.16	<0.24	<0.19	<0.24	<0.28	<0.6	<0.5	<0.5	<0.5	<0.2	**21**	<0.23
	6/7/2010		<0.19	<0.2	<0.23	<0.23	<0.22	<0.4 A	<0.24	<0.5	<0.5	<0.22	**11**	<0.29
	6/7/2010 Duplicate		<0.19	<0.2	<0.23	<0.23	<0.22	<0.4 A	<0.24	<0.5	<0.5	<0.22	**11**	<0.29
	12/9/2010		<0.19	<0.2	<0.23	<0.23	<0.22	<0.4	<0.24	<0.5	<0.5	<0.22	**11**	<0.29
	12/9/2010 Duplicate		<0.19	<0.2	<0.23	<0.23	<0.22	<0.4	<0.24	<0.5	<0.5	<0.22	9.7	<0.29
	6/29/2011		<0.30	<0.30	<0.30	<0.30	<0.29	<0.40	<0.29	<0.60	<0.60	<0.30	17	<0.30
	11/28/2011		<0.30	<0.30	<0.30	<0.30	<0.29	<0.40	<0.29	<0.60	<0.60	<0.30	**12**	<0.30
	6/25/2012		<0.30	<0.40	<0.40	<0.40	<0.30	<0.30	<0.3	<0.60	<0.60	<0.30	**11**	<0.40
MW07B	12/15/2009		<0.16	<0.24	<0.19	<0.24	<0.28	<0.6	<0.5	<0.5	<0.5	<0.2	0.28	<0.23
	6/7/2010		$NM^{(Dry)}$	$NM^{(Dry)}$	$NM^{(Dry)}$	$NM^{(Dry)}$	$NM^{(Dry)}$	$NM^{(Dry)}$	$NM^{(Dry)}$	$NM^{(Dry)}$	$NM^{(Dry)}$	$NM^{(Dry)}$	$NM^{(Dry)}$	$NM^{(Dry)}$
	12/9/2010		<0.19	<0.20	<0.23	<0.23	<0.22	<0.4	<0.24	<0.50	<0.50	<0.22	<0.21	<0.29
	6/29/2011		<0.30	<0.30	<0.30	<0.30	<0.29	<0.40	<0.29	<0.60	<0.60	<0.30	<0.40	<0.30
	11/28/2011		<0.30	<0.30	<0.30	<0.30	<0.29	<0.40	<0.29	<0.60	<0.60	<0.30	<0.40	<0.30
	6/25/2012		<0.30	<0.4	<0.4	<0.4	<0.30	<0.30	<0.30	<0.60	<0.6	<0.30	<0.50	<0.40

Table 4 (continued)
Summary of Groundwater Monitoring Analytical Results
Former Johnson Controls, Inc. - Humboldt Facility
3713 North Humboldt Boulevard
Milwaukee, Wisconsin

WELL ID	DATE	NR 140 (µg/L)	BENZENE	1,2,4-TRI-METHYL-BENZENE	1,3,5-TRI-METHYL-BENZENE	TRIMETHYL-BENZENE (total)	ETHYL-BENZENE	NAPH-THALENE	O-XYLENES	M-, P-XYLENES	XYLENES (total)	TOLUENE	TRI-CHLORO-ETHENE	METHYL TERT-BUTYL ETHER (MTBE)
		ES	**5**	**NS**	**NS**	**480**	**700**	**40**	**NS**	**NS**	**10,000**	**1,000**	**5**	**60**
		PAL	**0.5**	**NS**	**NS**	**96**	**140**	**8**	**NS**	**NS**	**1,000**	**200**	**0.5**	**12**
MW08	2/8/2000		<50	<150	<50	<150	<50	<100	<50	<100	<100	<100	**11,000**	<150
	1/29/2002		<25	<50	<75	<75	<25	<180	<25	<50	<50	<25	**78,000**	<280
	4/9/2002		<250	<500	<750	<750	<250	<1,800	<250	<500	<500	<250	**68,000**	<2,800
	7/2/2002		**2,100**	2,200	2,800	**5,000**	**2,100**	<1,300	2,100	4,200	**6,300**	**2,000**	**64,000**	<1,300
	9/30/2002		<1000	<1300	<1300	<1300	<1300	<1300	<1300	<1500	<1500	<1300	**81,000**	<1300
	4/10/2003		<1000	<1300	<1300	<1300	<1300	<1300	<1300	<1500	<1500	<1300	**79,000**	<1300
	7/28/2003		<800	<1000	<1000	<1000	<1000	<1000	<1000	<1200	<1200	<1000	**63,000**	<1000
	10/6/2003		<800	<1000	<1000	<1000	<1000	<1000	<1000	<1200	<1200	<1000	**59,000**	<1000
	2/20/2004		<2000	<2500	<2500	<2500	<2500	<2500	<2500	<3000	<3000	<2500	**78,000**	<2500
	4/21/2004		<130	<130	<130	<130	<130	<130	<130	<150	<130	<130	**73,000**	<130
	10/13/2004		<1000	<1300	<1300	<1300	<1300	<1300	<1300	<1500	<1500	<1300	**49,000**	<1300
	6/27/2005		<800	<800	<1000	<1000	<1000	<1200	<800	<2000	<2000	<800	**42,000**	<1200
	12/12/2005		<2000	<2000	<2500	<2500	<2500	<3000	<2000	<5000	<5000	<2000	**36,000**	<3000
	6/27/2006		<2000	<2500	<2000	<2500	<2500	<3500	<3000	<4500	<4500	<2000	**35,000**	<2000
	8/16/2007		<320	<480	<380	<480	<560	<1200	<1000	<1000	<1000	<400	**24,000**	<460
	8/26/2008		<160	<240	<190	<240	<280	<600	<500	<500	<500	<200	**26,000**	<230
	9/17/2009		<80	<120	<95	<120	<140	<300	<250	<250	<250	<100	**30,000**	<120
	12/15/2009		<16	<24	<19	<24	<28	<60	<50	<50	<50	<20	**7,400**	<23
	6/7/2010		<19	<20	<23	<23	<22	<40	<24	<50	<50	<22	**16,000**	<29
	12/9/2010		<48	<50	<58	<58	<55	<100	<60	<130	<130	<55	**16,000**	<73
	6/30/2011		<75	<75	<75	<75	<73	<100	<73	<150	<150	<75	**6,700**	<75
	11/28/2011		<60	<60	<60	<60	<58	<80	<58	<120	<120	<60	**6,200**	<60
	11/28/2011 Duplicate		<60	<60	<60	<60	<58	<80	<58	<120	<120	<60	**6,500**	<60
	6/25/2012		<60	<80	<80	<80	<60	<60	<60	<120	<120	<60	**8,900**	<80
	6/25/2012 Duplicate		<60	<80	<80	<80	<60	<60	<60	<120	<120	<60	**8,900**	<80

Table 4 (continued)
Summary of Groundwater Monitoring Analytical Results
Former Johnson Controls, Inc. - Humboldt Facility
3713 North Humboldt Boulevard
Milwaukee, Wisconsin

WELL ID	DATE	NR 140 (µg/L)	BENZENE	1,2,4-TRI-METHYL-BENZENE	1,3,5-TRI-METHYL-BENZENE	TRIMETHYL-BENZENE (total)	ETHYL-BENZENE	NAPH-THALENE	O-XYLENES	M-, P-XYLENES	XYLENES (total)	TOLUENE	TRI-CHLORO-ETHENE	METHYL TERT-BUTYL ETHER (MTBE)
		ES	**5**	**NS**	**NS**	**480**	**700**	**40**	**NS**	**NS**	**10,000**	**1,000**	**5**	**60**
		PAL	**0.5**	**NS**	**NS**	**96**	**140**	**8**	**NS**	**NS**	**1,000**	**200**	**0.5**	**12**
MW09	1/29/2002		<0.1	<0.2	<0.3	<0.3	<0.1	<0.7	<0.1	<0.2	<0.2	<0.1	<0.3	<1.1
	4/9/2002		<0.1	<0.2	<0.3	<0.3	<0.1	<0.7	<0.1	<0.2	<0.2	<0.1	<0.3	<1.1
	7/2/2002		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	<0.6	<0.5
	9/30/2002		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	<0.6	<0.5
	4/10/2003		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	<0.6	<0.5
	7/28/2003		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	<0.6	<0.5
	10/6/2003		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	<0.6	<0.5
	2/20/2004		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	<0.6	<0.5
	4/21/2004		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.5	<0.6	<0.5
	12/12/2005		<0.4	<0.4	<0.5	<0.5	<0.5	<0.6	<0.4	<1.0	<1.0	<0.4	<0.15	<0.6
	11/6/2006		<0.4	<0.5	<0.4	<0.5	<0.5	<0.7	<0.6	<0.9	<0.9	<0.4	<0.15	<0.4
	2/28/2007		<0.4	<0.5	<0.4	<0.5	<0.5	<0.7	<0.6	<0.9	<0.9	<0.4	<0.15	<0.4
	2/21/2008		<0.16	<0.24	<0.19	<0.24	<0.28	<0.60	<0.50	<0.50	<0.50	<0.20	0.17*	<0.23
	6/11/2009		<0.16	<0.24	<0.19	<0.24	<0.28	<0.6	<0.5	<0.5	<0.5	<0.2	0.2*	<0.23
	12/15/2009		<0.16	<0.24	<0.19	<0.24	<0.28	<0.6	<0.5	<0.5	<0.5	<0.2	0.3*	<0.23
	6/7/2010		<0.19	<0.2	<0.23	<0.23	<0.22	<0.4	<0.24	<0.5	<0.5	<0.22	0.3*	<0.29
	6/30/2011		<0.30	<0.30	<0.30	<0.30	<0.29	<0.40	<0.29	<0.60	<0.60	<0.30	<0.40	<0.30
	6/25/2012		<0.30	<0.40	<0.40	<0.40	<0.30	<0.30	<0.30	<0.60	<0.60	<0.30	*0.53**	<0.40

Notes:

1. NM = not measured/not sampled.
2. NS = no standard established in Wisconsin Administrative Code Chapter NR140 (NR 140).
3. Italics = reported concentration equals or exceeds NR140 Preventive Action Limit (PAL).
4. **Bold** = reported concentration equals or exceeds NR140 Enforcement Standard (ES).
5. (*) = value in between the LOD (limit of detection) and the LOQ (limit of quantitation).
6. (A) = analyte averaged calibration criteria within acceptable limits.
7. (J) = estimated value.
8. $^{(Dry)}$ = well is dry.

708 Heartland Trail
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July 16, 2012

Mr. Jesse Jensen
Wastewater Specialist
Water District South
Wisconsin Department of Natural Resources
2300 N. Martin Luther King Jr. Drive,
Milwaukee, WI 53212

Subject: Discharge Monitoring Report Form – April through June 2012
Outfalls No. 001 and No. 002
Former Johnson Controls, Inc. Facility
3713 N. Humboldt Boulevard – Milwaukee, WI

Dear Mr. Jensen:

In accordance with the requirements of the WPDES General Permit No. WI-0046566 for the Former Johnson Controls, Inc. facility located at 3713 N. Humboldt Boulevard, Milwaukee, Wisconsin, enclosed in Attachment A is the Discharge Monitoring Report Form for April through June 2012. The west-side treatment system (Outfall No. 001, also referred to as sump S03) was started on January 16, 2002. The basement treatment system (Outfall No. 002, also referred to as sump S01) was started on January 29, 2002.

An effluent sample was collected from outfalls S01 and S03 on June 25, 2012. The analytical results for each sample were below general permit effluent limitations for all targeted compounds. The laboratory report for this period is included in Attachment B.

If you have any questions or comments, please do not hesitate to call me at (608) 826-3665.

Sincerely,

TRC Environmental Corporation

Andrew M. Stehn

Andrew M. Stehn
Staff Engineer

Attachments: Attachment A – WPDES Discharge Monitoring Report Form
Attachment B – Analytical Laboratory Report

cc: Mike Stoelton – Johnson Controls, Inc.
Paul Turpin – TRC

Attachment A

WPDES Discharge Monitoring Report Form

General Permit Short Report

Facility Name: **JOHNSON CONTROLS INC HUMBOLDT**
Contact Address: 708 Heartland Trail, Suite 300
Madison WI 53717-

Facility Contact: Andrew Stehn
Phone number: (608)826-3665
Reporting Period: 04/01/2012 - 06/30/2012 Frequency: Quarterly
Form Due Date: 07/15/2012
Permit Number: **0046566**

For DNR Use Only

Date Received:	
DOC:	291285
FIN:	8007
FID:	241039040
Region:	Southeast
Permit Drafter:	
Reviewer:	Jesse M Jensen
Office:	Milwaukee

Sample Point Number	Para-meter Number	Parameter	Date Sample Taken	Sample Type	Sample Results	Units	Limit	Limit Type	LOD	LOQ	QC Exce.	Lab Certification Number
002	211	Flow Rate 3/22/12	- 6/25/12	ESTIMATED	213	gpd	*****		*****	*****		
	393	PAHs	6/25/12	GRAB	< 0.13	ug/L	.1	Monthly Avg	*****	*****		157066030
	508	Trichloro- ethylene	6/25/12	GRAB	< 0.50	ug/L	50	Monthly Avg	0.50	1.6		157066030
	517	Vinyl chloride	6/25/12	GRAB	< 0.18	ug/L	10	Monthly Avg	0.18	0.61		157066030
001	211	Flow Rate 3/22/12	- 6/25/12	ESTIMATED	79	gpd	*****		*****	*****		
	393	PAHs	6/25/12	GRAB	< 0.13	ug/L	.1	Monthly Avg	*****	*****		157066030
	508	Trichloro- ethylene	6/25/12	GRAB	< 0.50	ug/L	50	Monthly Avg	0.5	1.6		157066030
	517	Vinyl chloride	6/25/12	GRAB	< 0.18	ug/L	10	Monthly Avg	0.18	0.61		157066030

General Permit Short Report

General Remarks

Laboratory Quality Control Comments

Submittal of this form is required by section 283.55, Wis. Stats. and chapters NR 205 and 214, Wis. Adm. Code.

Personally identifiable information collected on this form may be used for purposes other than that for which it was originally collected. Under Wisconsin's open records laws, DNR is required to provide all non-confidential information to any person who requests it. Such information may be provided to the public in written or electronic form. Information reported may be made available to the public via a DNR web page.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions about this form, please call Jesse Jensen at (262)574-2132.

Return Form To

WI Department of Natural Resources
Jesse Jensen
2300 N Martin Luther King Jr. Drive
Milwaukee, WI 53212

Authorized Representative Signature — Date

Paul Lupin for JCJ — 7/16/12

Operator Signature — Certificate Number — Date

Make two copies of the completed form. Keep one copy and return the original and one copy to the DNR address provided.

Attachment B

Analytical Laboratory Data

CT LABORATORIES
delivering more than data from your environmental analyses

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ANALYTICAL REPORT

TRC ENVIRONMENTAL
KATHERINE VATER
708 HEARTLAND TRAIL
MADISON, WI 53717

Copy: MARK WALTER

Project Name: HUMBOLDT JOHNSON CONTROLS
Project Phase:
Contract #: 2402
Project #: 189244
Folder #: 91623
Purchase Order #:

Arrival Temperature: See COC
Report Date: 7/9/2012
Date Received: 6/26/2012
Reprint Date: 7/9/2012

CT LAB Sample#: 182357 Sample Description: EFFLUENT S01 Sampled: 6/25/2012 1020

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1-Methylnaphthalene	<0.42	ug/L	0.42	1.4	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310
2-Methylnaphthalene	<0.53	ug/L	0.53	1.6	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310
Acenaphthene	<0.53	ug/L	0.53	1.7	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310
Acenaphthylene	<0.53	ug/L	0.53	1.7	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310
Anthracene	<0.16	ug/L	0.16	0.53	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310
Benzo(a)anthracene	<0.017	ug/L	0.017	0.057	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310
Benzo(a)pyrene	<0.042	ug/L	0.042	0.15	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310
Benzo(b)fluoranthene	<0.032	ug/L	0.032	0.11	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310
Benzo(g,h,i)perylene	<0.063	ug/L	0.063	0.22	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310
Benzo(k)fluoranthene	<0.019	ug/L	0.019	0.064	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310
Chrysene	<0.084	ug/L	0.084	0.29	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310
Dibenzo(a,h)anthracene	<0.095	ug/L	0.095	0.33	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310
Fluoranthene	<0.025	ug/L	0.025	0.083	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310
Fluorene	<0.27	ug/L	0.27	0.92	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	<0.053	ug/L	0.053	0.16	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310
Naphthalene	<0.53	ug/L	0.53	1.7	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310

Solid sample results reported on a Dry Weight Basis

CT LAB Sample#: 182357 Sample Description: EFFLUENT S01 Sampled: 6/25/2012 1020

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Phenanthrene	<0.12	ug/L	0.12	0.40	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310
Pyrene	<0.13	ug/L	0.13	0.42	1		6/28/2012 13:00	7/7/2012 06:05	RED	EPA 8310
Trichloroethene	<0.50	ug/L	0.50	1.6	1			6/28/2012 15:05	APG	EPA 8260B
Vinyl chloride	<0.18	ug/L	0.18	0.61	1			6/28/2012 15:05	APG	EPA 8260B

CT LAB Sample#: 182364 Sample Description: EFFLUENT S03 Sampled: 6/25/2012 1050

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1-Methylnaphthalene	<0.42	ug/L	0.42	1.4	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310

Solid sample results reported on a Dry Weight Basis

CT LAB Sample#: 182364 Sample Description: EFFLUENT S03 Sampled: 6/25/2012 1050

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
2-Methylnaphthalene	<0.53	ug/L	0.53	1.6	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310
Acenaphthene	<0.53	ug/L	0.53	1.7	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310
Acenaphthylene	<0.53	ug/L	0.53	1.7	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310
Anthracene	<0.16	ug/L	0.16	0.53	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310
Benzo(a)anthracene	<0.017	ug/L	0.017	0.057	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310
Benzo(a)pyrene	<0.042	ug/L	0.042	0.15	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310
Benzo(b)fluoranthene	<0.032	ug/L	0.032	0.11	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310
Benzo(g,h,i)perylene	<0.063	ug/L	0.063	0.22	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310
Benzo(k)fluoranthene	<0.019	ug/L	0.019	0.064	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310
Chrysene	<0.084	ug/L	0.084	0.29	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310
Dibenzo(a,h)anthracene	<0.095	ug/L	0.095	0.33	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310
Fluoranthene	<0.025	ug/L	0.025	0.083	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310
Fluorene	<0.27	ug/L	0.27	0.92	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310
Indeno(1,2,3-cd)pyrene	<0.053	ug/L	0.053	0.16	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310
Naphthalene	<0.53	ug/L	0.53	1.7	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310
Phenanthrene	<0.12	ug/L	0.12	0.40	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310
Pyrene	<0.13	ug/L	0.13	0.42	1		6/28/2012 13:00	7/7/2012 06:42	RED	EPA 8310
Trichloroethene	<0.50	ug/L	0.50	1.6	1			6/28/2012 15:35	APG	EPA 8260B
Vinyl chloride	<0.18	ug/L	0.18	0.61	1			6/28/2012 15:35	APG	EPA 8260B

Solid sample results reported on a Dry Weight Basis

CT LAB Sample#: 182413 Sample Description: TRIP BLANK Sampled: 6/25/2012

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
Trichloroethene	<0.50	ug/L	0.50	1.6	1			7/3/2012 10:58	APG	EPA 8260B
Vinyl chloride	<0.18	ug/L	0.18	0.61	1			7/3/2012 10:58	APG	EPA 8260B

Solid sample results reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation).

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: PML

Project Manager
608-356-2760

Current CT Laboratories Certifications

Illinois NELAP ID# 002413
Kansas NELAP ID# E-10368
Kentucky ID# 0023
Pennsylvania NELAP ID# 68-04201
New Jersey NELAP ID# WI001
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA Cert # 3317.013
Alaska ID # UST-099
Louisiana ID # 115843
Virginia ID# 460203
ISO/IEC 17025-2005 A2LA Cert # 3317.01
GA EPD Stipulation ID 115843, Exp 6-30-12

GA EPD Stipulation

Accreditor:	LA NELAP
Scope:	Hazardous/Solid Waste Non-potable water
Effective:	07/01/2011

Rev. 4/2010

CHAIN OF CUSTODY

Page 1 of 2

Company: TRC
Project Contact: John Roelke
Telephone: (608) 826-3656
Project Name: Johnson Controls
Project #: 189244
Location: Milwaukee
Sampled By: JAR

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder #: 91623
Company: TRC ENVIRONMENTA
Project: HUMBOLDT JOHNSON C
Logged By: TMM PM: PM

gram: RCRA SDWA NPDES
Waste Other _____

Report To: Katherine Kater
EMAIL: kkater@trcsolutions.com
Company: TRC
Address: 708 Hartland Trail Madison WI 53717
Invoice To:* ACC. Rec.
EMAIL:
Company: TRC
Address: Sample

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW - groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample ID Description	Filtered? Y/N	ANALYSES REQUESTED: VOC's	PAH's	Diss. Fe & Mn	Tot. Alk Sulfate, Hardness	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
						Fill in Spaces with Bottles per Test						
6/25/12	1020	GW	Grab	Effluent S01	N	3	1					182357
	1025			Between Carbon S01	N	3						182362
	1030			Influent S01	N	3						182363
	1050			Effluent S03	N	3	2					182364
	1105			Carbon Vessel Post 2 S03	N	3						182365
	1110			Carbon Vessel Post 1 S03	N	3						182366
	1115			Influent S03	N	3						182367
	1215			mw-4A	F	3		1	1			182387
	1310			mw-4B	F	3						182389
	1331			mw-5	F	3		1	1			182393
	1400			mw-6	F	3		1	1			182394
↓	1430	↓	↓	mw-7A	F	3		1	1			182395

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Relinquished By:	Date/Time	Received By:	Date/Time
	6/25 1745		
Received by:	**Date/Time**	**Received for Laboratory by:**	**Date/Time**
		IV	06/26/12 0936

Lab Use Only
Ice Present (Yes) No
Temperature 5.4
Cooler # 5042

IV 06/26/12 0900

Rev. 4/2010

CHAIN OF CUSTODY

Company: TRC
Project Contact: J. Roelke
Telephone: (608) 826-3656
Project Name: Johnson Controls
Project #: 189244
Location: Milwaukee
Sampled By: JAR

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

91623

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: Katherine Vater
EMAIL: Kvater@trcsolutions.com
Company: TRC
Address: 708 Hartland Trail
Madison WI 53717

Invoice To:* Mac Lee
EMAIL:
Company: TRC
Address: Same

**Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions*

Client Special Instructions

Matrix:
GW - groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

ANALYSES REQUESTED

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Collection Date	Collection Time	Matrix	Grab/Comp	Sample ID Description	Filtered? Y/N	VOC's	Diss. Fe & Mn	Sulfate, NO2+NO3, Total Alk											Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
6/25/12	15:00	GW	Grab	MW-8	Y	3	1	1													182396
↓	15:00	↓	↓	MW-8 DUP	Y	3	1	1													182397
↓	15:40	↓	↓	MW-9	Y	3	1	1													182398
↓	14:40	↓	↓	MW-7B	Y	3															182408
—	—	↓	↓	Trip Blank	N	1															182413

Fill in Spaces with Bottles per Test

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	6/25 1745		
Received by:	Date/Time	Received for Laboratory by:	Date/Time

Lab Use Only
Ice Present Yes No
Temperature _____
Cooler # _____

MATERIAL SAFETY DATA SHEET

Sodium Persulfate

MSDS Ref. No.: 7775-27-1
Date Approved: 04/28/2004
Revision No.: 8

This document has been prepared to meet the requirements of the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200; the Canada's Workplace Hazardous Materials Information System (WHMIS) and, the EC Directive, 2001/58/EC.

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Sodium Persulfate

SYNONYMS: Sodium Peroxydisulfate; Disodium Peroxydisulfate

ALTERNATE PRODUCT NAME(S): RemedOx™

GENERAL USE: Polymerization initiator. Etchant and cleaner in manufacture of printed circuit boards. Booster in hair bleaching formulations in cosmetics. Secondary oil recovery systems as a polymerization initiator and a gel breaker.

MANUFACTURER

FMC CORPORATION
Active Oxidants Division
1735 Market Street
Philadelphia, PA 19103
(215) 299-6000 (General Information)

EMERGENCY TELEPHONE NUMBERS

(800) 424-9300 (CHEMTREC - U.S.)
(303) 595-9048 (Medical - Call Collect)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

- White, odorless, crystals
- Oxidizer: Decomposes in storage under conditions of moisture (water/water vapor) and/or excessive heat causing release of oxides of sulfur, nitrogen and oxygen that supports combustion. Decomposition could form a high temperature melt.

POTENTIAL HEALTH EFFECTS: Airborne persulfate dust may be irritating to eyes, nose, lungs, throat and skin upon contact. Exposure to high levels of persulfate dust may cause difficulty in breathing in sensitive persons.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Wt.%	EC No.	EC Class
Sodium Persulfate	7775-27-1	>99	231-892-1	Not classified as hazardous

4. FIRST AID MEASURES

EYES: Flush with plenty of water. Get medical attention if irritation occurs and persists.

SKIN: Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

INGESTION: Rinse mouth with water. Dilute by giving 1 or 2 glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. See a medical doctor immediately.

INHALATION: Remove to fresh air. If breathing difficulty or discomfort occurs and persists, contact a medical doctor.

NOTES TO MEDICAL DOCTOR: This product has low oral toxicity and is not irritating to the eyes and skin. Flooding of exposed areas with water is suggested, but gastric lavage or emesis induction for ingestions must consider possible aggravation of esophageal injury and the expected absence of system effects. Treatment is controlled removal of exposure followed by symptomatic and supportive care.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Deluge with water.

FIRE / EXPLOSION HAZARDS: Product is non-combustible. On decomposition releases oxygen which may intensify fire. Presence of water accelerates decomposition.

FIRE FIGHTING PROCEDURES: Do not use carbon dioxide or other gas filled fire extinguishers; they will have no effect on decomposing persulfates. Wear full protective clothing and self-contained breathing apparatus.

FLAMMABLE LIMITS: Non-combustible

SENSITIVITY TO IMPACT: No data available

SENSITIVITY TO STATIC DISCHARGE: No data available

6. ACCIDENTAL RELEASE MEASURES

RELEASE NOTES: Spilled material should be collected and put in approved DOT container and isolated for disposal. Isolated material should be monitored for signs of decomposition (fuming/smoking). If spilled material is wet, dissolve with large quantity of water and dispose as a hazardous waste. All disposals should be carried out according to regulatory agencies procedures.

7. HANDLING AND STORAGE

HANDLING: Use adequate ventilation when transferring product from bags or drums. Wear respiratory protection if ventilation is inadequate or not available. Use eye and skin protection. Use clean plastic or stainless steel scoops only.

STORAGE: Store (unopened) in a cool, clean, dry place away from point sources of heat, e.g. radiant heaters or steam pipes. Use first in, first out storage system. Avoid contamination of opened product. In case of fire or decomposition (fuming/smoking) deluge with plenty of water to control decomposition. For storage, refer to NFPA Bulletin 430 on storage of liquid and solid oxidizing materials.

COMMENTS: VENTILATION: Provide mechanical general and/or local exhaust ventilation to prevent release of dust into work environment. Spills should be collected into suitable containers to prevent dispersion into the air.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS

Chemical Name	ACGIH	OSHA	Supplier
Sodium Persulfate	0.1 mg/m^3 (TWA)		

ENGINEERING CONTROLS: Provide mechanical local general room ventilation to prevent release of dust into the work environment. Remove contaminated clothing immediately and wash before reuse.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Use cup type chemical goggles. Full face shield may be used.

RESPIRATORY: Use approved dust respirator when airborne dust is expected.

PROTECTIVE CLOTHING: Normal work clothes. Rubber or neoprene footwear.

GLOVES: Rubber or neoprene gloves. Thoroughly wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR:	None
APPEARANCE:	White crystals
AUTOIGNITION TEMPERATURE:	Not applicable. No evidence of combustion up to 800°C. Decomposition will occur upon heating.
BOILING POINT:	Not applicable
COEFFICIENT OF OIL / WATER:	Not applicable
DENSITY / WEIGHT PER VOLUME:	Not available
EVAPORATION RATE:	Not applicable (Butyl Acetate = 1)
FLASH POINT:	Non-combustible
MELTING POINT:	Decomposes
ODOR THRESHOLD:	Not applicable
OXIDIZING PROPERTIES:	Oxidizer
PERCENT VOLATILE:	Not applicable
pH:	typically 5.0 - 7.0 @ 25 °C (1% solution)
SOLUBILITY IN WATER:	73 % @ 25 °C (by wt.)
SPECIFIC GRAVITY:	2.6 (H_2O=1)
VAPOR DENSITY:	Not applicable (Air = 1)
VAPOR PRESSURE:	Not applicable

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID:	Heat and moisture.
STABILITY:	Stable (becomes unstable in presence of heat, moisture and contamination).
POLYMERIZATION:	Will not occur
INCOMPATIBLE MATERIALS:	Acids, alkalis, halides (fluorides, chlorides, bromides), combustible materials, heavy metals, oxidizable materials, reducing agents and organic compounds.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxygen that supports combustion and oxides of sulfur and nitrogen.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Non-irritating (rabbit) [FMC Study Number: ICG/T-79.029]

SKIN EFFECTS: Non-irritating (rabbit) [FMC Study Number: ICG/T-79.029]

DERMAL LD_{50}: > 10 g/kg [FMC Study Number: ICG/T-79.029]

ORAL LD_{50}: 895 mg/kg (rat) [FMC Study Number: ICG/T-79.029]

INHALATION LC_{50}: 5.1 mg/l (rat) [FMC I95-2017]

SENSITIZATION: May be sensitizing to allergic persons. [FMC Study Number: ICG/T-79.029]

TARGET ORGANS: Eyes, skin, respiratory passages

ACUTE EFFECTS FROM OVEREXPOSURE: Dust may be harmful and irritating. May be harmful if swallowed.

CHRONIC EFFECTS FROM OVEREXPOSURE: Sensitive persons may develop dermatitis and asthma [Respiration 38:144, 1979]. Groups of male and female rats were fed 0, 300 or 3000 ppm sodium persulfate in the diet for 13 weeks, followed by 5000 ppm for 5 weeks. Microscopic examination of tissues revealed some injury to the gastrointestinal tract at the high dose (3000 ppm) only. This effect is not unexpected for an oxidizer at high concentrations. [Ref. FMC I90-1151, Toxicologist 1:149, 1981].

CARCINOGENICITY:

NTP:	Not listed
IARC:	Not listed
OSHA:	Not listed
OTHER:	ACGIH: Not listed

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:

Bluegill sunfish, 96-hour LC_{50} = 771 mg/L [FMC Study I92-1250]
Rainbow trout, 96-hour LC_{50} = 163 mg/L [FMC Study I92-1251]
Daphnia, 48-hour LC_{50} = 133 mg/L [FMC Study I92-1252]

Grass shrimp, 96-hour LC_{50} = 519 mg/L [FMC Study I92-1253]

CHEMICAL FATE INFORMATION: Biodegradability does not apply to inorganic substances.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose as a hazardous waste in accordance with local, state and federal regulatory agencies.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

PROPER SHIPPING NAME:	Sodium Persulfate
PRIMARY HAZARD CLASS / DIVISION:	5.1 (Oxidizer)
UN/NA NUMBER:	UN 1505
PACKING GROUP:	III
LABEL(S):	5.1 (Oxidizer)
PLACARD(S):	5.1 (Oxidizer)
MARKING(S):	Sodium Persulfate, UN 1505
ADDITIONAL INFORMATION:	Hazardous Substance/RQ: Not applicable 49 STCC Number: 4918733 This material is shipped in 225 lb. fiber drums, 55 lb. poly bags and 1000 - 2200 lb. IBC's (supersacks).

INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG)

PROPER SHIPPING NAME:	Sodium Persulfate

INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO) / INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA)

PROPER SHIPPING NAME:	Sodium Persulfate

OTHER INFORMATION:

Protect from physical damage. Do not store near acids, moisture or heat.

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355, APPENDIX A):
Not applicable

SECTION 311 HAZARD CATEGORIES (40 CFR 370):
Fire Hazard, Immediate (Acute) Health Hazard

SECTION 312 THRESHOLD PLANNING QUANTITY (40 CFR 370):
The Threshold Planning Quantity (TPQ) for this product, if treated as a mixture, is 10,000 lbs; however, this product contains the following ingredients with a TPQ of less than 10,000 lbs.:
None

SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372):
Not listed

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT)

CERCLA DESIGNATION & REPORTABLE QUANTITIES (RQ) (40 CFR 302.4):
Unlisted, RQ = 100 lbs., Ignitability

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA INVENTORY STATUS (40 CFR 710):
Listed

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)
RCRA IDENTIFICATION OF HAZARDOUS WASTE (40 CFR 261):
Waste Number: D001

CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):

Product Identification Number:	1505
Hazard Classification / Division:	Class C (Oxidizer), Class D, Div. 2, Subdiv. B. (Toxic)
Ingredient Disclosure List:	Listed

INTERNATIONAL LISTINGS

Sodium persulfate:
Australia (AICS): Listed
China: Listed
Japan (ENCS): (1)-1131

Korea: KE-12369
Philippines (PICCS): Listed

16. OTHER INFORMATION

HMIS

Health	1
Flammability	0
Physical Hazard	1
Personal Protection (PPE)	J

Protection = J (Safety goggles, gloves, apron & combination dust & vapor respirator)

HMIS = Hazardous Materials Identification System

Degree of Hazard Code:
4 = Severe
3 = Serious
2 = Moderate
1 = Slight
0 = Minimal

NFPA

Health	1
Flammability	0
Reactivity	1
Special	OX

SPECIAL = OX (Oxidizer)

NFPA = National Fire Protection Association

Degree of Hazard Code:
4 = Extreme
3 = High
2 = Moderate
1 = Slight
0 = Insignificant

REVISION SUMMARY:
This MSDS replaces Revision #7, dated March 10, 2004.
Changes in information are as follows:
Section 1 (Product and Company Identification)
Section 16 (Other Information)

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