

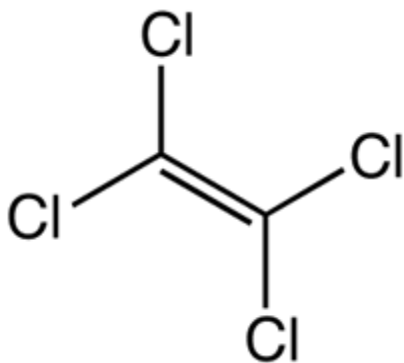


# Final Risk Evaluation for Perchloroethylene

**Supplemental File:**

**E-FAST Surface Water Modeling Outputs**

**CASRN: 127-18-4**



*December 2020*

## Table of Contents

1. OES: MANUFACTURING .....	3
2. OES: IMPORT/REPACKAGING.....	99
3. OES: PROCESSING AS A REACTANT.....	132
4. OES: INCORPORATION INTO FORMULATION .....	266
5. OES: OTVD (INCLUDES RELEASES FOR CLOSED-LOOP DEGREASING, CONVEYORIZED DEGREASING, WEB DEGREASING, COLD CLEANING, AND METAL WORKING FLUIDS).....	289
6. OES: OTVDs (NOT IN TRI/DMR) .....	419
7. OES: CLOSED-LOOP VAPOR DEGREASERS (NOT IN TRI/DMR) .....	423
8. OES: CONVEYORIZED DEGREASERS (NOT IN TRI/DMR).....	427
9. OES: WEB DEGREASERS (NOT IN TRI/DMR) .....	431
10. OES: DRY CLEANING (COMMERCIAL AND INDUSTRIAL).....	435
11. OES: ADHESIVES, PAINTS, AND COATINGS .....	516
12. OES: CHEMICAL MASKANT .....	524
13. OES: INDUSTRIAL PROCESSING AID .....	554
14. OES: OTHER INDUSTRIAL USES .....	651
15. OES: OTHER COMMERCIAL USES.....	716
16. OES: WASTE HANDLING, DISPOSAL, TREATMENT, AND RECYCLING .....	772

**1. OES: MANUFACTURING**

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:1

Number of Release Sites: 1.

Release Activity: Axiall 350 dy max

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
		Non-sludge/Sludge		

Total Releases:	35.00	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	0.10	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

**INITIAL EXPOSURE REVIEW REPORT**

Chemical ID: PERC Mfg 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER:1                      RELEASE ACTIVITY: Axiall 350 dy max

FACILITY NAME: PPG IND-LAKE CHARLES

FACILITY LOCATION: LAKE CHARLES LA 70601

RECEIVING WATER NAME: CALCASIEU R

REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 08080206033                                      No

NPDES PERMIT #: LA0000761      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	350.	0.1	0.10	0.00	0.00

<b>AQUATIC EXPOSURE ESTIMATES - SURFACE WATER</b>					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	3997.81	1290.68	884.92	884.92	NA
CONCENTRATION (µg/L)	2.50E-02	7.75E-02	0.11	0.11	NA

<b>DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES</b>				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.32E-07 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.01E-05 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	2.93E-06 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Axiall 350 dy avg

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	10.78 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	3.08E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Mfg 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:2                      RELEASE ACTIVITY: Axiall 350 dy avg  
 FACILITY NAME: PPG IND-LAKE CHARLES  
 FACILITY LOCATION: LAKE CHARLES LA 70601  
 RECEIVING WATER NAME: CALCASIEU R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 08080206033                      No  
 NPDES PERMIT #: LA0000761      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	350.	0.0308	3.08E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	3997.81	1290.68	884.92	884.92	NA
CONCENTRATION (µg/L)	7.70E-03	2.39E-02	3.48E-02	3.48E-02	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				



DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	4.06E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	3.13E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	9.04E-07 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:3

Number of Release Sites: 1.

Release Activity: Axiall 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	10.80 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.54 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Mfg 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:3                      RELEASE ACTIVITY: Axiall 20 dy  
 FACILITY NAME: PPG IND-LAKE CHARLES  
 FACILITY LOCATION: LAKE CHARLES LA 70601  
 RECEIVING WATER NAME: CALCASIEU R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 08080206033                      No  
 NPDES PERMIT #: LA0000761    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.54	0.54	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	3997.81	1290.68	884.92	884.92	NA
CONCENTRATION (µg/L)	0.14	0.42	0.61	0.61	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	4.07E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	3.13E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.58E-05 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:4

Number of Release Sites: 1.

Release Activity: Greenchem 350 dy max

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	35.00 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	0.10 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4                      Number of Sites: 1                      RELEASE ACTIVITY: Greenchem 350 dy max

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	350.	0.1	0.10	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	3Q5	7Q10	1Q10	Harmonic Mean	3Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	3.54E-02	0.11	0.16	0.19
ALL	10	50.57	9.38	5.41	4.53	1.98	10.66	18.48	22.08



DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.87E-07	1.04E-05	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.44E-05	8.02E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.05E-06	4.04E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4                      RELEASE ACTIVITY: Greenchem 350 dy max

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	7	25	350.00	0.10	0.00	High
360.00	1	4	350.00	0.10	0.00	High
1400.00	0	0	350.00	0.10	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:5

Number of Release Sites: 1.

Release Activity: Greenchem 350 dy avg

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	10.78 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	3.08E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 5                      Number of Sites: 1                      RELEASE ACTIVITY: Greenchem 350 dy avg

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	350.	0.0308	3.08E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	1.09E-02	3.29E-02	4.86E-02	5.99E-02
ALL	10	50.57	9.38	5.41	4.53	0.61	3.28	5.69	6.80

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	5.75E-08	3.21E-06	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.42E-06	2.47E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.25E-06	1.24E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 5                      RELEASE ACTIVITY: Greenchem 350 dy avg

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	3	12	350.00	3.08E-02	0.00	High
360.00	0	0	350.00	3.08E-02	0.00	High
1400.00	0	0	350.00	3.08E-02	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:6

Number of Release Sites: 1.

Release Activity: Greenchem 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	10.80 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.54 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 6                      Number of Sites: 1                      RELEASE ACTIVITY: Greenchem 20 dy

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.54	0.54	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	0.19	0.58	0.85	1.05
ALL	10	50.57	9.38	5.41	4.53	10.68	57.57	99.82	119.21



DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	5.76E-08	3.22E-06	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.43E-06	2.48E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.19E-05	2.18E-03	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 6                      RELEASE ACTIVITY: Greenchem 20 dy

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	1	4	20.00	0.54	0.00	High
360.00	0	1	20.00	0.54	0.00	High
1400.00	0	0	20.00	0.54	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:7

Number of Release Sites: 1.

Release Activity: Occidental 350 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.59 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	1.69E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Mfg 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:7                      RELEASE ACTIVITY: Occidental 350 dy  
 FACILITY NAME: VULCAN CHEMICAL  
 FACILITY LOCATION: GEISMAR LA 70734  
 RECEIVING WATER NAME: MISSISSIPPI R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 08070100001                      Yes  
 NPDES PERMIT #: LA0002933      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	350.	0.00169	1.69E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	8.12E+05	2.98E+05	2.47E+05	1.92E+05	NA
CONCENTRATION (µg/L)	2.08E-06	5.68E-06	6.84E-06	8.80E-06	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.10E-11 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	8.44E-10 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	2.15E-10 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:8

Number of Release Sites: 1.

Release Activity: Occidental 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.59 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	2.95E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Mfg 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:8                      RELEASE ACTIVITY: Occidental 20 dy  
 FACILITY NAME: VULCAN CHEMICAL  
 FACILITY LOCATION: GEISMAR LA 70734  
 RECEIVING WATER NAME: MISSISSIPPI R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 08070100001                      Yes  
 NPDES PERMIT #: LA0002933      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.0295	2.95E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	8.12E+05	2.98E+05	2.47E+05	1.92E+05	NA
CONCENTRATION (µg/L)	3.63E-05	9.91E-05	1.19E-04	1.54E-04	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				



DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.09E-11 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	8.42E-10 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	3.75E-09 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER: 8                      RELEASE ACTIVITY: Occidental 20 dy

FACILITY NAME: VULCAN CHEMICAL

FACILITY LOCATION: GEISMAR LA 70734

RECEIVING STREAM NAME: MISSISSIPPI R

REACH NUMBER: 08070100001      FACILITY ON REACH:      DISCHARGE TYPE:  
    Yes     Direct

NPDES PERMIT NUMBER:                      GAGING STATION ID: N/A  
 LA0002933

GAGING STATION PERIOD OF      GAGING STATION                      NUMBER OF  
 RECORD: N/A     NUMBER OF     STATIONS ON REACH:  
    OBSERVATIONS: N/A     N/A

MEAN FLOW (MLD): 1.14E+06      7q10 FLOW (MLD):                      EFFLUENT FLOW  
    2.47E+05     (MLD):4.14

RESULTS					
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	20.00	2.95E-02	0.00
360.00	0	0	20.00	2.95E-02	0.00
1400.00	0	0	20.00	2.95E-02	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:9

Number of Release Sites: 1.

Release Activity: Solvents 350 dy max

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.10 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	3.00E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 9                                      Number of Sites: 1                                      RELEASE ACTIVITY: Solvents 350 dy max

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	350.	0.0003	3.00E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	1.06E-04	3.21E-04	4.73E-04	5.83E-04
ALL	10	50.57	9.38	5.41	4.53	5.93E-03	3.20E-02	5.55E-02	6.62E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	5.60E-10	3.13E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.31E-08	2.41E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.21E-08	1.21E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 9

RELEASE ACTIVITY: Solvents 350 dy max

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	350.00	3.00E-04	0.00	High
360.00	0	0	350.00	3.00E-04	0.00	High
1400.00	0	0	350.00	3.00E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:10

Number of Release Sites: 1.

Release Activity: Solvents 350 dy avg

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	8.57E-05 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 10                      Number of Sites: 1                      RELEASE  
ACTIVITY: Solvents 350 dy  
avg

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION:  
Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	350.	0.00009	8.57E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	3.03E-05	9.16E-05	1.35E-04	1.67E-04
ALL	10	50.57	9.38	5.41	4.53	1.69E-03	9.14E-03	1.58E-02	1.89E-02



DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.60E-10	8.94E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.23E-08	6.88E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	3.47E-09	3.46E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 10                      RELEASE ACTIVITY: Solvents 350 dy avg

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	350.00	8.60E-05	0.00	High
360.00	0	0	350.00	8.60E-05	0.00	High
1400.00	0	0	350.00	8.60E-05	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:11

Number of Release Sites: 1.

Release Activity: Solvents 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.50E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 11                      Number of Sites: 1                      RELEASE ACTIVITY: Solvents 20 dy

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.0015	1.50E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	5.31E-04	1.60E-03	2.37E-03	2.92E-03
ALL	10	50.57	9.38	5.41	4.53	2.97E-02	0.16	0.28	0.33

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.60E-10	8.94E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.23E-08	6.88E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	6.07E-08	6.06E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 11                      RELEASE ACTIVITY: Solvents 20 dy

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	1.50E-03	0.00	High
360.00	0	0	20.00	1.50E-03	0.00	High
1400.00	0	0	20.00	1.50E-03	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:12

Number of Release Sites: 1.

Release Activity: Univar 350 dy max

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	35.00 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	0.10 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 12                      Number of Sites: 1                      RELEASE ACTIVITY:Univar 350 dy max

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	350.	0.1	0.10	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	3.54E-02	0.11	0.16	0.19
ALL	10	50.57	9.38	5.41	4.53	1.98	10.66	18.48	22.08



DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.87E-07	1.04E-05	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.44E-05	8.02E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.05E-06	4.04E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 12

RELEASE ACTIVITY: Univar 350 dy max

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	7	25	350.00	0.10	0.00	High
360.00	1	4	350.00	0.10	0.00	High
1400.00	0	0	350.00	0.10	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:13

Number of Release Sites: 1.

Release Activity: Univar 350 dy avg

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	10.78 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	3.08E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 13                      Number of Sites: 1                      RELEASE ACTIVITY:Univar 350 dy avg

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	350.	0.0308	3.08E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	1.09E-02	3.29E-02	4.86E-02	5.99E-02
ALL	10	50.57	9.38	5.41	4.53	0.61	3.28	5.69	6.80

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	5.75E-08	3.21E-06	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.42E-06	2.47E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.25E-06	1.24E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 13                      RELEASE ACTIVITY: Univar 350 dy avg

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	3	12	350.00	3.08E-02	0.00	High
360.00	0	0	350.00	3.08E-02	0.00	High
1400.00	0	0	350.00	3.08E-02	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 14

Number of Release Sites: 1.

Release Activity: Univar 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	10.80 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.54 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 14                      Number of Sites: 1                      RELEASE ACTIVITY:Univar 20 dy

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.54	0.54	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	0.19	0.58	0.85	1.05
ALL	10	50.57	9.38	5.41	4.53	10.68	57.57	99.82	119.21



DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	5.76E-08	3.22E-06	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.43E-06	2.48E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.19E-05	2.18E-03	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Mfg 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 14                      RELEASE ACTIVITY: Univar 20 dy

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	1	4	20.00	0.54	0.00	High
360.00	0	1	20.00	0.54	0.00	High
1400.00	0	0	20.00	0.54	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 1

Number of Release Sites: 1.

Release Activity: Axiall 350 dy max

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	35.00 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	0.10 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE ACTIVITY:Axiall 350 dy max

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	350.	0.1	1.20E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	4.25E-03	1.28E-02	1.89E-02	2.33E-02
ALL	10	50.57	9.38	5.41	4.53	0.24	1.28	2.22	2.65

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.24E-08	1.25E-06	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.72E-06	9.63E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.86E-07	4.85E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      RELEASE ACTIVITY: Axiall 350 dy max

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	1	3	350.00	0.10	88.00	High
360.00	0	0	350.00	0.10	88.00	High
1400.00	0	0	350.00	0.10	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Axiall 350 dy avg

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	10.78 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	3.08E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2                      Number of Sites: 1                      RELEASE ACTIVITY: Axiall 350 dy avg

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	350.	0.0308	3.70E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	1.31E-03	3.95E-03	5.83E-03	7.19E-03
ALL	10	50.57	9.38	5.41	4.53	7.31E-02	0.39	0.68	0.82



DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	6.90E-09	3.85E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	5.31E-07	2.97E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.50E-07	1.49E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2                      RELEASE ACTIVITY: Axiall 350 dy avg

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	350.00	3.08E-02	88.00	High
360.00	0	0	350.00	3.08E-02	88.00	High
1400.00	0	0	350.00	3.08E-02	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:3

Number of Release Sites: 1.

Release Activity: Greenchem 350 dy max

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	35.00	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	0.10	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 3                      Number of Sites: 1                      RELEASE ACTIVITY: Greenchem 350 dy max

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	350.	0.1	1.20E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	4.25E-03	1.28E-02	1.89E-02	2.33E-02
ALL	10	50.57	9.38	5.41	4.53	0.24	1.28	2.22	2.65

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.24E-08	1.25E-06	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.72E-06	9.63E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.86E-07	4.85E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 3                      RELEASE ACTIVITY: Greenchem 350 dy max

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	1	3	350.00	0.10	88.00	High
360.00	0	0	350.00	0.10	88.00	High
1400.00	0	0	350.00	0.10	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:4

Number of Release Sites: 1.

Release Activity: Greenchem 350 dy avg

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	10.78 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	3.08E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4                      Number of Sites: 1                      RELEASE ACTIVITY: Greenchem 350 dy avg

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	350.	0.0308	3.70E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	1.31E-03	3.95E-03	5.83E-03	7.19E-03
ALL	10	50.57	9.38	5.41	4.53	7.31E-02	0.39	0.68	0.82



DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	6.90E-09	3.85E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	5.31E-07	2.97E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.50E-07	1.49E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4                      RELEASE ACTIVITY: Greenchem 350 dy avg

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	350.00	3.08E-02	88.00	High
360.00	0	0	350.00	3.08E-02	88.00	High
1400.00	0	0	350.00	3.08E-02	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:5

Number of Release Sites: 1.

Release Activity: Olin 350 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	14.53 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	4.15E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC MFG 88

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:5                      RELEASE ACTIVITY: Olin 350 dy  
 FACILITY NAME: DOW CHEMICAL CO-FREEPORT  
 FACILITY LOCATION: FREEPORT TX 775413257  
 RECEIVING WATER NAME: BRAZOS R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 12070104002                      Yes  
 NPDES PERMIT #: TX0006483      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.	350.	0.0415	4.98E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	9652.16	3667.69	2608.81	2608.81	NA
CONCENTRATION (µg/L)	5.16E-04	1.36E-03	1.91E-03	1.91E-03	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.72E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.09E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	5.14E-08 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 5                      RELEASE ACTIVITY: Olin 350 dy  
 FACILITY NAME: DOW CHEMICAL CO-FREEPORT  
 FACILITY LOCATION: FREEPORT TX 775413257  
 RECEIVING STREAM NAME: BRAZOS R  
 REACH NUMBER: 12070104002    FACILITY ON REACH:        DISCHARGE TYPE:  
    Yes                                      Direct  
 NPDES PERMIT NUMBER:                      GAGING STATION ID: N/A  
 TX0006483  
 GAGING STATION PERIOD OF                  GAGING STATION                      NUMBER OF  
 RECORD: N/A                                      NUMBER OF                                  STATIONS ON REACH:  
    OBSERVATIONS: N/A                      N/A  
 MEAN FLOW (MLD): 1.97E+04                  7q10 FLOW (MLD):                      EFFLUENT FLOW  
    2608.81                                      (MLD):2608.81

RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	350.00	4.15E-02	88.00
360.00	0	0	350.00	4.15E-02	88.00
1400.00	0	0	350.00	4.15E-02	88.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:6

Number of Release Sites: 1.

Release Activity: Olin 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	14.52 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.73 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC MFG 88

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER: 6                      RELEASE ACTIVITY: Olin 20 dy  
 FACILITY NAME: DOW CHEMICAL CO-FREEPORT  
 FACILITY LOCATION: FREEPORT TX 775413257  
 RECEIVING WATER NAME: BRAZOS R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 12070104002                      Yes  
 NPDES PERMIT #: TX0006483    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.	20.	0.726	8.71E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	9652.16	3667.69	2608.81	2608.81	NA
CONCENTRATION (µg/L)	9.03E-03	2.38E-02	3.34E-02	3.34E-02	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				



DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.72E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.09E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	9.00E-07 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER  
RELEASES

SCENARIO NUMBER: 6                      RELEASE ACTIVITY: Olin 20 dy

FACILITY NAME: DOW CHEMICAL CO-FREEPORT

FACILITY LOCATION: FREEPORT TX 775413257

RECEIVING STREAM NAME: BRAZOS R

REACH NUMBER: 12070104002      FACILITY ON REACH:      DISCHARGE TYPE:  
Yes                                      Direct

NPDES PERMIT NUMBER:              GAGING STATION ID: N/A  
TX0006483

GAGING STATION PERIOD OF      GAGING STATION              NUMBER OF  
RECORD: N/A                              NUMBER OF                      STATIONS ON REACH:  
OBSERVATIONS: N/A                      N/A

MEAN FLOW (MLD): 1.97E+04      7q10 FLOW (MLD):              EFFLUENT FLOW  
2608.81                                      (MLD):2608.81

RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	20.00	0.73	88.00
360.00	0	0	20.00	0.73	88.00
1400.00	0	0	20.00	0.73	88.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:7

Number of Release Sites: 1.

Release Activity: Solvents 350 dy max

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.10 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	3.00E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 7                      Number of Sites: 1                      RELEASE ACTIVITY: Solvents 350 dy max

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	350.	0.0003	3.60E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	1.27E-05	3.85E-05	5.68E-05	7.00E-05
ALL	10	50.57	9.38	5.41	4.53	7.12E-04	3.84E-03	6.65E-03	7.95E-03

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	6.72E-11	3.75E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	5.17E-09	2.89E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.46E-09	1.45E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 7                      RELEASE ACTIVITY: Solvents 350 dy max

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	350.00	3.00E-04	88.00	High
360.00	0	0	350.00	3.00E-04	88.00	High
1400.00	0	0	350.00	3.00E-04	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:8

Number of Release Sites: 1.

Release Activity: Solvents 350 dy avg

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	8.57E-05 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 8                      Number of Sites: 1                      RELEASE ACTIVITY: Solvents 350 dy avg

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	350.	0.00009	1.03E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	3.64E-06	1.10E-05	1.62E-05	2.00E-05
ALL	10	50.57	9.38	5.41	4.53	2.03E-04	1.10E-03	1.90E-03	2.27E-03



DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.92E-11	1.07E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.48E-09	8.25E-08	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.16E-10	4.15E-08	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 8                      RELEASE ACTIVITY: Solvents 350 dy avg

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	350.00	8.60E-05	88.00	High
360.00	0	0	350.00	8.60E-05	88.00	High
1400.00	0	0	350.00	8.60E-05	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:9

Number of Release Sites: 1.

Release Activity: Univar 350 dy max

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	35.00 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	0.10 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 9                                      Number of Sites: 1                                      RELEASE ACTIVITY:Univar 350 dy max

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	350.	0.1	1.20E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	4.25E-03	1.28E-02	1.89E-02	2.33E-02
ALL	10	50.57	9.38	5.41	4.53	0.24	1.28	2.22	2.65

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.24E-08	1.25E-06	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.72E-06	9.63E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.86E-07	4.85E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 9

RELEASE ACTIVITY: Univar 350 dy max

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	1	3	350.00	0.10	88.00	High
360.00	0	0	350.00	0.10	88.00	High
1400.00	0	0	350.00	0.10	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:10

Number of Release Sites: 1.

Release Activity: Univar 350 dy avg

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	10.78 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	3.08E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 10                      Number of Sites: 1                      RELEASE  
ACTIVITY:Univar 350 dy  
avg

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION:  
Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	350.	0.0308	3.70E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	3Q5	7Q10	1Q10	Harmonic Mean	3Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	1.31E-03	3.95E-03	5.83E-03	7.19E-03
ALL	10	50.57	9.38	5.41	4.53	7.31E-02	0.39	0.68	0.82



DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	6.90E-09	3.85E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	5.31E-07	2.97E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.50E-07	1.49E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC MFG 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 10                      RELEASE ACTIVITY: Univar 350 dy avg

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	350.00	3.08E-02	88.00	High
360.00	0	0	350.00	3.08E-02	88.00	High
1400.00	0	0	350.00	3.08E-02	88.00	High

**2. OES: IMPORT/REPACKAGING**

**INITIAL REVIEW EXPOSURE REPORT**

Chemical ID: PERC Imp 00

Assessor:

<b>ENVIRONMENTAL RELEASES</b>
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Scenario#: 1

Number of Release Sites: 1.

Release Activity: Chemtool 250 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	0.30	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	1.20E-03	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

**INITIAL EXPOSURE REVIEW REPORT**

Chemical ID: PERC Imp 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER:1                      RELEASE ACTIVITY: Chemtool 250 dy  
 FACILITY NAME: BELOIT CORPORATION BLACKHAWK  
 FACILITY LOCATION: ROCKTON IL 61072  
 RECEIVING WATER NAME: ROCK R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 07090001001                      Yes  
 NPDES PERMIT #: IL0064564      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	250.	0.0012	1.20E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	2440.83	1010.44	686.84	556.60	NA
CONCENTRATION (µg/L)	4.92E-04	1.19E-03	1.75E-03	2.16E-03	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.85E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.42E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	4.50E-08 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Imp 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Chemtool 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.30 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.50E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Imp 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:2                      RELEASE ACTIVITY: Chemtool 20 dy  
 FACILITY NAME: BELOIT CORPORATION BLACKHAWK  
 FACILITY LOCATION: ROCKTON IL 61072  
 RECEIVING WATER NAME: ROCK R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 07090001001                      Yes  
 NPDES PERMIT #: IL0064564      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.015	1.50E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	2440.83	1010.44	686.84	556.60	NA
CONCENTRATION (µg/L)	6.15E-03	1.48E-02	2.18E-02	2.69E-02	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				



DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.85E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.42E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	5.62E-07 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Imp 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER: 2                      RELEASE ACTIVITY: Chemtool 20 dy

FACILITY NAME: BELOIT CORPORATION BLACKHAWK

FACILITY LOCATION: ROCKTON IL 61072

RECEIVING STREAM NAME: ROCK R

REACH NUMBER: 07090001001      FACILITY ON REACH:      DISCHARGE TYPE:  
    Yes                                  Direct

NPDES PERMIT NUMBER:                      GAGING STATION ID: N/A  
    IL0064564

GAGING STATION PERIOD OF                      GAGING STATION                      NUMBER OF  
 RECORD: N/A     NUMBER OF                                  STATIONS ON REACH:  
    OBSERVATIONS: N/A                                  N/A

MEAN FLOW (MLD): 5115.29                      7q10 FLOW (MLD): 686.84      EFFLUENT FLOW  
    (MLD):0.46

<b>RESULTS</b>					
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COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	20.00	1.50E-02	0.00
360.00	0	0	20.00	1.50E-02	0.00
1400.00	0	0	20.00	1.50E-02	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Imp 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:3

Number of Release Sites: 1.

Release Activity: Harvey 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	2.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	8.00E-05 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Imp 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:3                      RELEASE ACTIVITY: Harvey 250 dy  
 FACILITY NAME: COMPTON CORPORATION  
 FACILITY LOCATION: GRETNA LA 70054  
 RECEIVING WATER NAME: MISSISSIPPI R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 08090100004                      Yes  
 NPDES PERMIT #: LA0005291      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	250.	0.00008	8.00E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	8.13E+05	2.98E+05	2.47E+05	1.92E+05	NA
CONCENTRATION (µg/L)	9.84E-08	2.69E-07	3.24E-07	4.16E-07	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	3.71E-13 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.85E-11 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.02E-11 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Imp 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER: 3                      RELEASE ACTIVITY: Harvey 250 dy

FACILITY NAME: COMPTON CORPORATION

FACILITY LOCATION: GRETNA LA 70054

RECEIVING STREAM NAME: MISSISSIPPI R

REACH NUMBER: 08090100004    FACILITY ON REACH:        DISCHARGE TYPE:  
    Yes                                Direct

NPDES PERMIT NUMBER:                GAGING STATION ID: N/A  
LA0005291

GAGING STATION PERIOD OF        GAGING STATION                NUMBER OF  
RECORD: N/A                            NUMBER OF                            STATIONS ON REACH:  
    OBSERVATIONS: N/A                N/A

MEAN FLOW (MLD): 1.14E+06        7q10 FLOW (MLD):                EFFLUENT FLOW  
    2.47E+05                                (MLD):20.25

RESULTS					
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	250.00	8.00E-05	0.00
360.00	0	0	250.00	8.00E-05	0.00
1400.00	0	0	250.00	8.00E-05	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Imp 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:4

Number of Release Sites: 1.

Release Activity: Harvey 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	2.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.00E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Imp 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER:4                      RELEASE ACTIVITY: Harvey 20 dy  
 FACILITY NAME: COMPTON CORPORATION  
 FACILITY LOCATION: GRETNA LA 70054  
 RECEIVING WATER NAME: MISSISSIPPI R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 08090100004                      Yes  
 NPDES PERMIT #: LA0005291      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.001	1.00E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	8.13E+05	2.98E+05	2.47E+05	1.92E+05	NA
CONCENTRATION (µg/L)	1.23E-06	3.36E-06	4.05E-06	5.20E-06	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				



DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	3.71E-13 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.85E-11 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.27E-10 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Imp 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER  
RELEASES**

SCENARIO NUMBER: 4                      RELEASE ACTIVITY: Harvey 20 dy

FACILITY NAME: COMPTON CORPORATION

FACILITY LOCATION: GRETN LA 70054

RECEIVING STREAM NAME: MISSISSIPPI R

REACH NUMBER: 08090100004    FACILITY ON REACH:        DISCHARGE TYPE:  
  Yes   Direct

NPDES PERMIT NUMBER:                GAGING STATION ID: N/A  
LA0005291

GAGING STATION PERIOD OF          GAGING STATION                      NUMBER OF  
RECORD: N/A                                      NUMBER OF                              STATIONS ON REACH:  
  OBSERVATIONS: N/A                      N/A

MEAN FLOW (MLD): 1.14E+06    7q10 FLOW (MLD):                      EFFLUENT FLOW  
  2.47E+05                                      (MLD):20.25

**RESULTS**

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	20.00	1.00E-03	0.00
360.00	0	0	20.00	1.00E-03	0.00
1400.00	0	0	20.00	1.00E-03	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Imp 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:5

Number of Release Sites: 1.

Release Activity: Vopak 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.20 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	4.80E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Imp 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:5                      RELEASE ACTIVITY: Vopak 250 dy  
 FACILITY NAME: ENTERGY LOUISIANA INC-NINEMIL  
 FACILITY LOCATION: WESTWEGO LA 70094  
 RECEIVING WATER NAME: MISSISSIPPI R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 08090100004                      No  
 NPDES PERMIT #: LA0003093      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	250.	0.0048	4.80E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	8.13E+05	2.98E+05	2.47E+05	1.92E+05	NA
CONCENTRATION (µg/L)	5.91E-06	1.61E-05	1.94E-05	2.50E-05	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.23E-11 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.71E-09 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	6.11E-10 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Imp 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 5 RELEASE ACTIVITY: Vopak 250 dy
FACILITY NAME: ENTERGY LOUISIANA INC-NINEMIL
FACILITY LOCATION: WESTWEGO LA 70094
RECEIVING STREAM NAME: MISSISSIPPI R
REACH NUMBER: 08090100004 FACILITY ON REACH: No DISCHARGE TYPE: Direct
NPDES PERMIT NUMBER: LA0003093 GAGING STATION ID: N/A
GAGING STATION PERIOD OF RECORD: N/A GAGING STATION NUMBER OF OBSERVATIONS: N/A NUMBER OF STATIONS ON REACH: N/A
MEAN FLOW (MLD): 1.14E+06 7q10 FLOW (MLD): 2.47E+05 EFFLUENT FLOW (MLD):3549.49

RESULTS

Table with 6 columns: COC (μg/L), Percent of Year COC Exceeded, Number of Days COC Exceeded, Release days/year, Pre-treatment Loading (kg/site/day), Waste Water Treatment (%). Rows show data for COC levels 50.00, 360.00, and 1400.00.

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Imp 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:6

Number of Release Sites: 1.

Release Activity: Vopak 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.20 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	6.00E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Imp 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:6                      RELEASE ACTIVITY: Vopak 20 dy  
 FACILITY NAME: ENTERGY LOUISIANA INC-NINEMIL  
 FACILITY LOCATION: WESTWEGO LA 70094  
 RECEIVING WATER NAME: MISSISSIPPI R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 08090100004                      No  
 NPDES PERMIT #: LA0003093      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.06	6.00E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	8.13E+05	2.98E+05	2.47E+05	1.92E+05	NA
CONCENTRATION (µg/L)	7.38E-05	2.02E-04	2.43E-04	3.12E-04	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				



DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.23E-11 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.71E-09 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	7.64E-09 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Imp 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES
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SCENARIO NUMBER: 6    RELEASE ACTIVITY: Vopak 20 dy

FACILITY NAME: ENTERGY LOUISIANA INC-NINEMIL

FACILITY LOCATION: WESTWEGO LA 70094

RECEIVING STREAM NAME: MISSISSIPPI R

REACH NUMBER: 08090100004      FACILITY ON REACH:      DISCHARGE TYPE:  
No    Direct

NPDES PERMIT NUMBER:                      GAGING STATION ID: N/A  
LA0003093

GAGING STATION PERIOD OF                      GAGING STATION                      NUMBER OF  
RECORD: N/A    NUMBER OF    STATIONS ON REACH:  
OBSERVATIONS: N/A    N/A

MEAN FLOW (MLD): 1.14E+06                      7q10 FLOW (MLD):                      EFFLUENT FLOW  
2.47E+05    (MLD):3549.49

RESULTS					
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	20.00	6.00E-02	0.00
360.00	0	0	20.00	6.00E-02	0.00
1400.00	0	0	20.00	6.00E-02	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Imp 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:1

Number of Release Sites: 1.

Release Activity: Hubbard 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	280.00	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	1.12	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Imp 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE ACTIVITY: Hubbard 250 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	250.	1.12	0.13	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	0.47	1.09	1.72	2.03
ALL	10	39.60	13.29	7.76	7.57	3.39	10.11	17.32	17.75

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.76E-06	1.28E-05	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.35E-04	9.83E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.11E-05	3.83E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Imp 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1

RELEASE ACTIVITY: Hubbard 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	2	6	250.00	1.12	88.00	High
360.00	0	0	250.00	1.12	88.00	High
1400.00	0	0	250.00	1.12	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Imp 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Hubbard 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	279.00 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	13.95 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Imp 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2                                  Number of Sites: 1                                  RELEASE ACTIVITY: Hubbard 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                                  EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	20.	13.95	1.67	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	5.81	13.52	21.41	25.34
ALL	10	39.60	13.29	7.76	7.57	42.27	125.96	215.72	221.14



DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.75E-06	1.27E-05	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.35E-04	9.80E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	5.12E-04	4.77E-03	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Imp 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2                      RELEASE ACTIVITY: Hubbard 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	3	11	20.00	13.95	88.00	High
360.00	0	1	20.00	13.95	88.00	High
1400.00	0	0	20.00	13.95	88.00	High

**3. OES: PROCESSING AS A REACTANT**

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 1

Number of Release Sites: 1.

Release Activity: Akzo 350 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	5.01E-02	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	1.43E-04	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:1                      RELEASE ACTIVITY: Akzo 350 dy  
 FACILITY NAME: AKZO NOBEL SURFACE CHEMISTRY  
 FACILITY LOCATION: MORRIS IL 60450  
 RECEIVING WATER NAME: AUX SABLE CR  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 07120005014                      Yes  
 NPDES PERMIT #: IL0026069      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	350.	0.00014	1.43E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	1098.93	713.96	479.41	389.48	NA
CONCENTRATION (µg/L)	1.30E-04	2.00E-04	2.98E-04	3.67E-04	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	6.86E-10 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	5.28E-08 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	7.59E-09 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Akzo 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	5.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	2.50E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:2                      RELEASE ACTIVITY: Akzo 20 dy  
 FACILITY NAME: AKZO NOBEL SURFACE CHEMISTRY  
 FACILITY LOCATION: MORRIS IL 60450  
 RECEIVING WATER NAME: AUX SABLE CR  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 07120005014                              Yes  
 NPDES PERMIT #: IL0026069      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.0025	2.50E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	1098.93	713.96	479.41	389.48	NA
CONCENTRATION (µg/L)	2.27E-03	3.50E-03	5.21E-03	6.42E-03	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				



DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	6.86E-10 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	5.27E-08 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.33E-07 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:3

Number of Release Sites: 1.

Release Activity: Atkemix 350 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	25.86 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	7.39E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:3                      RELEASE ACTIVITY: Atkemix 350 dy  
 FACILITY NAME: ATKEMIX TEN INC  
 FACILITY LOCATION: LOUISVILLE KY 40216  
 RECEIVING WATER NAME: OHIO R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 05140101001                      Yes  
 NPDES PERMIT #: KY0002780    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	350.	0.0739	7.39E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	1.02E+05	2.46E+04	1.87E+04	1.48E+04	NA
CONCENTRATION (µg/L)	7.23E-04	3.01E-03	3.96E-03	5.00E-03	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	3.81E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.93E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.14E-07 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:4

Number of Release Sites: 1.

Release Activity: Atkemix 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	25.80 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.29 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:4                      RELEASE ACTIVITY: Atkemix 20 dy  
 FACILITY NAME: ATKEMIX TEN INC  
 FACILITY LOCATION: LOUISVILLE KY 40216  
 RECEIVING WATER NAME: OHIO R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 05140101001                      Yes  
 NPDES PERMIT #: KY0002780    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	1.29	1.29	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	1.02E+05	2.46E+04	1.87E+04	1.48E+04	NA
CONCENTRATION (µg/L)	1.26E-02	5.25E-02	6.91E-02	8.72E-02	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				



DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	3.80E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.92E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.99E-06 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER: 4                      RELEASE ACTIVITY: Atkemix 20 dy

FACILITY NAME: ATKEMIX TEN INC

FACILITY LOCATION: LOUISVILLE KY 40216

RECEIVING STREAM NAME: OHIO R

REACH NUMBER: 05140101001    FACILITY ON REACH:    DISCHARGE TYPE:  
Yes    Direct

NPDES PERMIT NUMBER:              GAGING STATION ID: 03294500  
KY0002780

GAGING STATION PERIOD OF      GAGING STATION              NUMBER OF  
RECORD: 01/01/66 - 09/29/89      NUMBER OF                      STATIONS ON REACH:  
OBSERVATIONS: 8674.00              1

50 %ile FLOW (MLD): 1.99E+05    10 %ile FLOW (MLD):      EFFLUENT FLOW  
5.65E+04                                  (MLD):1.71

RESULTS					
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	20.00	1.29	0.00
360.00	0	0	20.00	1.29	0.00
1400.00	0	0	20.00	1.29	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:5

Number of Release Sites: 1.

Release Activity: BayerNJ 350 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	1.00E-02	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	2.86E-05	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 5                      Number of Sites: 1                      RELEASE ACTIVITY: BayerNJ 350 dy

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	350.	0.00003	2.86E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	1.01E-05	3.06E-05	4.51E-05	5.56E-05
ALL	10	50.57	9.38	5.41	4.53	5.66E-04	3.05E-03	5.29E-03	6.31E-03

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	5.34E-11	2.98E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.11E-09	2.29E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.16E-09	1.15E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 5                      RELEASE ACTIVITY: BayerNJ 350 dy

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	350.00	2.90E-05	0.00	High
360.00	0	0	350.00	2.90E-05	0.00	High
1400.00	0	0	350.00	2.90E-05	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:6

Number of Release Sites: 1.

Release Activity: BayerNJ 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	5.00E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 6                      Number of Sites: 1                      RELEASE ACTIVITY: BayerNJ 20 dy

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.0005	5.00E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	1.77E-04	5.34E-04	7.88E-04	9.72E-04
ALL	10	50.57	9.38	5.41	4.53	9.89E-03	5.33E-02	9.24E-02	0.11



DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	5.33E-11	2.98E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.10E-09	2.29E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.02E-08	2.02E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 6                      RELEASE ACTIVITY: BayerNJ 20 dy

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	5.00E-04	0.00	High
360.00	0	0	20.00	5.00E-04	0.00	High
1400.00	0	0	20.00	5.00E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:7

Number of Release Sites: 1.

Release Activity: BayerWV 350 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.25 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	7.14E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:7                      RELEASE ACTIVITY: BayerWV 350 dy  
 FACILITY NAME: BAYER CORP  
 FACILITY LOCATION: NEW MARTINSVILLE WV 26155  
 RECEIVING WATER NAME: OHIO R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 05030201051                      Yes  
 NPDES PERMIT #: WV0005169 EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	350.	0.00071	7.14E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	3.88E+04	1.13E+04	8396.41	6686.06	NA
CONCENTRATION (µg/L)	1.84E-05	6.29E-05	8.50E-05	1.07E-04	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	9.70E-11 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	7.46E-09 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	2.38E-09 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

### SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 7                      RELEASE ACTIVITY: BayerWV 350 dy

FACILITY NAME: BAYER CORP

FACILITY LOCATION: NEW MARTINSVILLE WV 26155

RECEIVING STREAM NAME: OHIO R

REACH NUMBER: 05030201051      FACILITY ON REACH:      DISCHARGE TYPE:  
Yes                                  Direct

NPDES PERMIT NUMBER:              GAGING STATION ID: N/A  
WV0005169

GAGING STATION PERIOD OF      GAGING STATION                  NUMBER OF  
RECORD: N/A                      NUMBER OF                      STATIONS ON REACH:  
OBSERVATIONS: N/A                  N/A

MEAN FLOW (MLD): 9.57E+04      7q10 FLOW (MLD):              EFFLUENT FLOW  
8396.41                                  (MLD):14.41

### RESULTS

COC ( $\mu\text{g}/\text{L}$ )	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	350.00	7.14E-04	0.00
360.00	0	0	350.00	7.14E-04	0.00
1400.00	0	0	350.00	7.14E-04	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:8

Number of Release Sites: 1.

Release Activity: BayerWV 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.25 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.25E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:8                      RELEASE ACTIVITY: BayerWV 20 dy  
 FACILITY NAME: BAYER CORP  
 FACILITY LOCATION: NEW MARTINSVILLE WV 26155  
 RECEIVING WATER NAME: OHIO R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 05030201051                              Yes  
 NPDES PERMIT #: WV0005169 EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.0125	1.25E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	3.88E+04	1.13E+04	8396.41	6686.06	NA
CONCENTRATION (µg/L)	3.22E-04	1.10E-03	1.49E-03	1.87E-03	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				



DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	9.70E-11 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	7.46E-09 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	4.17E-08 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:9

Number of Release Sites: 1.

Release Activity: Chemtura 350 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	2.86E-05 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:9                      RELEASE ACTIVITY: Chemtura 350 dy  
 FACILITY NAME: GE SPECIALTY CHEMICALS INC  
 FACILITY LOCATION: MORGANTOWN WV 26501  
 RECEIVING WATER NAME: MONONGAHELA R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 05020003007                              No  
 NPDES PERMIT #: WV0004740 EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	350.	0.00003	2.86E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	3434.56	1014.22	689.50	558.74	NA
CONCENTRATION (µg/L)	8.33E-06	2.82E-05	4.15E-05	5.12E-05	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	4.39E-11 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	3.38E-09 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.07E-09 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER  
RELEASES

SCENARIO NUMBER: 9                      RELEASE ACTIVITY: Chemtura 350 dy

FACILITY NAME: GE SPECIALTY CHEMICALS INC

FACILITY LOCATION: MORGANTOWN WV 26501

RECEIVING STREAM NAME: MONONGAHELA R

REACH NUMBER: 05020003007      FACILITY ON REACH:      DISCHARGE TYPE:  
No    Direct

NPDES PERMIT NUMBER:              GAGING STATION ID: N/A  
WV0004740

GAGING STATION PERIOD OF      GAGING STATION              NUMBER OF  
RECORD: N/A                              NUMBER OF                      STATIONS ON REACH:  
OBSERVATIONS: N/A                      N/A

MEAN FLOW (MLD): 1.05E+04      7q10 FLOW (MLD): 689.50      EFFLUENT FLOW  
(MLD):5.21

RESULTS					
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	350.00	2.90E-05	0.00
360.00	0	0	350.00	2.90E-05	0.00
1400.00	0	0	350.00	2.90E-05	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:10

Number of Release Sites: 1.

Release Activity: Chemtura 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	5.00E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

**INITIAL EXPOSURE REVIEW REPORT**

Chemical ID: PERC Proc 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER:10                      RELEASE ACTIVITY: Chemtura 20 dy

FACILITY NAME: GE SPECIALTY CHEMICALS INC

FACILITY LOCATION: MORGANTOWN WV 26501

RECEIVING WATER NAME: MONONGAHELA R

REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 05020003007                                      No

NPDES PERMIT #: WV0004740 EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.0005	5.00E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	3434.56	1014.22	689.50	558.74	NA
CONCENTRATION (µg/L)	1.46E-04	4.93E-04	7.25E-04	8.95E-04	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				



DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	4.39E-11 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	3.37E-09 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.87E-08 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:11

Number of Release Sites: 1.

Release Activity: Dupont-Chem 350 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	5.88 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	1.68E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 11	RELEASE ACTIVITY: Dupont-Chem 350 dy	
FACILITY NAME: DUPONT-MONTAGUE		
FACILITY LOCATION: MONTAGUE MI 49437		
RECEIVING WATER NAME: L MICHIGAN		
REACH NUMBER: 04060101006	FACILITY ON REACH: Yes	DISCHARGE TYPE: Direct
NPDES PERMIT #: MI0000884	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	350.	8.27	0.0168	1.68E-02	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	2.03
CHRONIC SCENARIO	1.00	2.03

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:12

Number of Release Sites: 1.

Release Activity: Dupont-Chem 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	5.80	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.29	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 12	RELEASE ACTIVITY: Dupont-Chem 20 dy	
FACILITY NAME: DUPONT-MONTAGUE		
FACILITY LOCATION: MONTAGUE MI 49437		
RECEIVING WATER NAME: L MICHIGAN		
REACH NUMBER: 04060101006	FACILITY ON REACH: Yes	DISCHARGE TYPE: Direct
NPDES PERMIT #: MI0000884	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	20.	8.27	0.29	0.29	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	35.07
CHRONIC SCENARIO	1.00	35.07

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:13

Number of Release Sites: 1.

Release Activity: Eagle 350 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	465.50 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	1.33 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

**INITIAL EXPOSURE REVIEW REPORT**

Chemical ID: PERC Proc 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER:13                      RELEASE ACTIVITY: Eagle 350 dy

FACILITY NAME: PPG IND-LAKE CHARLES

FACILITY LOCATION: LAKE CHARLES LA 70601

RECEIVING WATER NAME: CALCASIEU R

REACH NUMBER:                              FACILITY ON REACH:    DISCHARGE TYPE: Direct  
 08080206033                                      No

NPDES PERMIT #: LA0000761    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	350.	1.33	1.33	0.00	0.00

<b>AQUATIC EXPOSURE ESTIMATES - SURFACE WATER</b>					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	3997.81	1290.68	884.92	884.92	NA
CONCENTRATION (µg/L)	0.33	1.03	1.50	1.50	NA

<b>DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES</b>				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.75E-06 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.35E-04 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	3.90E-05 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 14

Number of Release Sites: 1.

Release Activity: Eagle 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	465.40	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	23.27	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

**INITIAL EXPOSURE REVIEW REPORT**

Chemical ID: PERC Proc 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER:14                      RELEASE ACTIVITY: Eagle 20 dy  
 FACILITY NAME: PPG IND-LAKE CHARLES  
 FACILITY LOCATION: LAKE CHARLES LA 70601  
 RECEIVING WATER NAME: CALCASIEU R  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 08080206033                                  No  
 NPDES PERMIT #: LA0000761      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	23.27	23.27	0.00	0.00

<b>AQUATIC EXPOSURE ESTIMATES - SURFACE WATER</b>					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	3997.81	1290.68	884.92	884.92	NA
CONCENTRATION (µg/L)	5.82	18.03	26.30	26.30	NA

<b>DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES</b>				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.75E-06 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.35E-04 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	6.83E-04 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:





INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:15

Number of Release Sites: 1.

Release Activity: FlintTX 350 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	24.04 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	6.87E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 15	RELEASE ACTIVITY: FlintTX 350 dy	
FACILITY NAME: FLINT HILLS RESOURCES LP		
FACILITY LOCATION: CORPUS CHRISTI TX 78410		
RECEIVING WATER NAME: CORPUS CHRISTI BAY		
REACH NUMBER: 12110202001	FACILITY ON REACH: No	DISCHARGE TYPE: Direct
NPDES PERMIT #: TX0006289	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	350.	7.04	0.0687	6.87E-02	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	3.30	2.96
CHRONIC SCENARIO	12.50	0.78

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 16

Number of Release Sites: 1.

Release Activity: FlintTX 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	24.00	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.20	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

**INITIAL REVIEW EXPOSURE REPORT**

CHEMICAL ID: PERC Proc 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:</b>		
<b>LAKES, BAYS, ESTUARIES, AND OCEANS</b>		
SCENARIO #: 16	RELEASE ACTIVITY: FlintTX 20 dy	
FACILITY NAME: FLINT HILLS RESOURCES LP		
FACILITY LOCATION: CORPUS CHRISTI TX 78410		
RECEIVING WATER NAME: CORPUS CHRISTI BAY		
REACH NUMBER: 12110202001	FACILITY ON REACH: No	DISCHARGE TYPE: Direct
NPDES PERMIT #: TX0006289	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST-TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	20.	7.04	1.2	1.20	0.00

<b>AQUATIC EXPOSURE ESTIMATES</b>		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	3.30	51.65
CHRONIC SCENARIO	12.50	13.64

<b>FISH INGESTION EXPOSURE ESTIMATES</b>
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:17

Number of Release Sites: 1.

Release Activity: FlintMN 350 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	4.09 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	1.17E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER:17                      RELEASE ACTIVITY: FlintMN 350 dy  
 FACILITY NAME: KOCH REFINING CO-ROSEMOUNT  
 FACILITY LOCATION: ROSEMOUNT MN 55068  
 RECEIVING WATER NAME: MISSISSIPPI R  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 07010206001                                  Yes  
 NPDES PERMIT #: MN0000418 EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	350.	0.0117	1.17E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	1.30E+04	4913.45	3531.07	2828.89	NA
CONCENTRATION (µg/L)	8.97E-04	2.38E-03	3.31E-03	4.14E-03	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				



DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	4.73E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	3.64E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	9.02E-08 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:18

Number of Release Sites: 1.

Release Activity: FlintMN 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	4.00 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.20 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:18                      RELEASE ACTIVITY: FlintMN 20 dy  
 FACILITY NAME: KOCH REFINING CO-ROSEMOUNT  
 FACILITY LOCATION: ROSEMOUNT MN 55068  
 RECEIVING WATER NAME: MISSISSIPPI R  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 07010206001                                  Yes  
 NPDES PERMIT #: MN0000418 EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.2	0.20	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	1.30E+04	4913.45	3531.07	2828.89	NA
CONCENTRATION (µg/L)	1.53E-02	4.07E-02	5.66E-02	7.07E-02	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	4.62E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	3.55E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.54E-06 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:19

Number of Release Sites: 1.

Release Activity: Honeywell Geismar 350 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	7.10 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	2.03E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:19                      RELEASE ACTIVITY: Honeywell Geismar 350 dy  
 FACILITY NAME: ALLIED-SIGNAL INC-GEISMAR  
 FACILITY LOCATION: GEISMAR LA 70734  
 RECEIVING WATER NAME: MISSISSIPPI R  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 08070100001                                  Yes  
 NPDES PERMIT #: LA0006181      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	350.	0.0203	2.03E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	8.12E+05	2.98E+05	2.47E+05	1.92E+05	NA
CONCENTRATION (µg/L)	2.50E-05	6.82E-05	8.22E-05	1.06E-04	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				



DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.32E-10 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.01E-08 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	2.58E-09 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER  
RELEASES**

SCENARIO NUMBER: 19                      RELEASE ACTIVITY: Honeywell Geismar 350 dy

FACILITY NAME: ALLIED-SIGNAL INC-GEISMAR

FACILITY LOCATION: GEISMAR LA 70734

RECEIVING STREAM NAME: MISSISSIPPI R

REACH NUMBER: 08070100001      FACILITY ON REACH:      DISCHARGE TYPE:  
Yes    Direct

NPDES PERMIT NUMBER:              GAGING STATION ID: N/A  
LA0006181

GAGING STATION PERIOD OF      GAGING STATION              NUMBER OF  
RECORD: N/A                              NUMBER OF                      STATIONS ON REACH:  
OBSERVATIONS: N/A                      N/A

MEAN FLOW (MLD): 1.14E+06      7q10 FLOW (MLD):              EFFLUENT FLOW  
2.47E+05                                      (MLD):1.40

**RESULTS**

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	350.00	2.03E-02	0.00
360.00	0	0	350.00	2.03E-02	0.00
1400.00	0	0	350.00	2.03E-02	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:20

Number of Release Sites: 1.

Release Activity: Honeywell Geismar 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	7.20 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.36 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:20                      RELEASE ACTIVITY: Honeywell Geismar 20 dy  
 FACILITY NAME: ALLIED-SIGNAL INC-GEISMAR  
 FACILITY LOCATION: GEISMAR LA 70734  
 RECEIVING WATER NAME: MISSISSIPPI R  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 08070100001                                  Yes  
 NPDES PERMIT #: LA0006181      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.36	0.36	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	8.12E+05	2.98E+05	2.47E+05	1.92E+05	NA
CONCENTRATION (µg/L)	4.43E-04	1.21E-03	1.46E-03	1.87E-03	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.34E-10 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.03E-08 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	4.58E-08 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER  
RELEASES

SCENARIO NUMBER: 20      RELEASE ACTIVITY: Honeywell Geismar 20 dy

FACILITY NAME: ALLIED-SIGNAL INC-GEISMAR

FACILITY LOCATION: GEISMAR LA 70734

RECEIVING STREAM NAME: MISSISSIPPI R

REACH NUMBER: 08070100001      FACILITY ON REACH:      DISCHARGE TYPE:  
Yes      Direct

NPDES PERMIT NUMBER:      GAGING STATION ID: N/A  
LA0006181

GAGING STATION PERIOD OF      GAGING STATION      NUMBER OF  
RECORD: N/A      NUMBER OF      STATIONS ON REACH:  
OBSERVATIONS: N/A      N/A

MEAN FLOW (MLD): 1.14E+06      7q10 FLOW (MLD):      EFFLUENT FLOW  
2.47E+05      (MLD):1.40

RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	20.00	0.36	0.00
360.00	0	0	20.00	0.36	0.00
1400.00	0	0	20.00	0.36	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:21

Number of Release Sites: 1.

Release Activity: Honeywell Baton 350 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	17.25	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	4.93E-02	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

**INITIAL EXPOSURE REVIEW REPORT**

Chemical ID: PERC Proc 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER:21                      RELEASE ACTIVITY: Honeywell Baton 350 dy

FACILITY NAME: HONEYWELL

FACILITY LOCATION: BATON ROUGE LA 70805

RECEIVING WATER NAME: MONTE SAND BAYOU

REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
08070201013                                      Yes

NPDES PERMIT #: LA0000329      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	350.	0.0493	4.93E-02	0.00	0.00

<b>AQUATIC EXPOSURE ESTIMATES - SURFACE WATER</b>					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	33.73	17.18	10.12	8.45	NA
CONCENTRATION (µg/L)	1.46	2.87	4.87	5.84	NA

<b>DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES</b>				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				



DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	7.71E-06 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	5.93E-04 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.09E-04 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES
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SCENARIO NUMBER: 21                  RELEASE ACTIVITY: Honeywell Baton 350 dy

FACILITY NAME: HONEYWELL

FACILITY LOCATION: BATON ROUGE LA 70805

RECEIVING STREAM NAME: MONTE SAND BAYOU

REACH NUMBER: 08070201013	FACILITY ON REACH: Yes	DISCHARGE TYPE: Direct
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NPDES PERMIT NUMBER: LA0000329	GAGING STATION ID: N/A
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GAGING STATION PERIOD OF RECORD: N/A	GAGING STATION NUMBER OF OBSERVATIONS: N/A	NUMBER OF STATIONS ON REACH: N/A
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MEAN FLOW (MLD): 82.27	7q10 FLOW (MLD): 10.12	EFFLUENT FLOW (MLD):5.59
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RESULTS					
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COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	350.00	4.93E-02	0.00
360.00	0	0	350.00	4.93E-02	0.00
1400.00	0	0	350.00	4.93E-02	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:22

Number of Release Sites: 1.

Release Activity: Honeywell Baton 20 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	17.20	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.86	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

**INITIAL EXPOSURE REVIEW REPORT**

Chemical ID: PERC Proc 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER:22                      RELEASE ACTIVITY: Honeywell Baton 20 dy

FACILITY NAME: HONEYWELL

FACILITY LOCATION: BATON ROUGE LA 70805

RECEIVING WATER NAME: MONTE SAND BAYOU

REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
08070201013                                      Yes

NPDES PERMIT #: LA0000329      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.86	0.86	0.00	0.00

<b>AQUATIC EXPOSURE ESTIMATES - SURFACE WATER</b>					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	33.73	17.18	10.12	8.45	NA
CONCENTRATION (µg/L)	25.49	50.05	84.98	101.81	NA

<b>DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES</b>				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	7.68E-06 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	5.91E-04 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.90E-03 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER: 22                              RELEASE ACTIVITY: Honeywell Baton 20 dy

FACILITY NAME: HONEYWELL

FACILITY LOCATION: BATON ROUGE LA 70805

RECEIVING STREAM NAME: MONTE SAND BAYOU

REACH NUMBER: 08070201013      FACILITY ON REACH:      DISCHARGE TYPE:  
    Yes                              Direct

NPDES PERMIT NUMBER:              GAGING STATION ID: N/A  
 LA0000329

GAGING STATION PERIOD OF RECORD: N/A      GAGING STATION              NUMBER OF  
    NUMBER OF              STATIONS ON REACH:  
    OBSERVATIONS: N/A          N/A

MEAN FLOW (MLD): 82.27              7q10 FLOW (MLD): 10.12      EFFLUENT FLOW  
    (MLD):5.59

RESULTS					
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	2	7	20.00	0.86	0.00
360.00	0	0	20.00	0.86	0.00
1400.00	0	0	20.00	0.86	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:23

Number of Release Sites: 1.

Release Activity: Indorama 350 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.99E-03 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	1.14E-05 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 23                      Number of Sites: 1                      RELEASE ACTIVITY: Indorama 350 dy

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	350.	0.00001	1.14E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	4.03E-06	1.22E-05	1.80E-05	2.22E-05
ALL	10	50.57	9.38	5.41	4.53	2.25E-04	1.22E-03	2.11E-03	2.52E-03



DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.13E-11	1.19E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.64E-09	9.15E-08	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.62E-10	4.60E-08	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 23                      RELEASE ACTIVITY: Indorama 350 dy

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	350.00	1.10E-05	0.00	High
360.00	0	0	350.00	1.10E-05	0.00	High
1400.00	0	0	350.00	1.10E-05	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:24

Number of Release Sites: 1.

Release Activity: Indorama 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	4.00E-03 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	2.00E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 24                      Number of Sites: 1                      RELEASE ACTIVITY: Indorama 20 dy

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.0002	2.00E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	7.08E-05	2.14E-04	3.15E-04	3.89E-04
ALL	10	50.57	9.38	5.41	4.53	3.95E-03	2.13E-02	3.70E-02	4.42E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.13E-11	1.19E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.64E-09	9.17E-08	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	8.10E-09	8.08E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 24                      RELEASE ACTIVITY: Indorama 20 dy

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	2.00E-04	0.00	High
360.00	0	0	20.00	2.00E-04	0.00	High
1400.00	0	0	20.00	2.00E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:25

Number of Release Sites: 1.

Release Activity: Keeshan 350 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	2.00E-02	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	5.71E-05	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 25	RELEASE ACTIVITY: Keeshan 350 dy	
FACILITY NAME: KEESHAN AND CO-MANVEL		
FACILITY LOCATION: MANVEL TX 77578		
RECEIVING WATER NAME: WEST BAY		
REACH NUMBER: 12040204020	FACILITY ON REACH: No	DISCHARGE TYPE: Direct
NPDES PERMIT #: TX0072168	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	350.	1.00E-02	0.00006	5.71E-05	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	5.71
CHRONIC SCENARIO	1.00	5.71

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:26

Number of Release Sites: 1.

Release Activity: Keeshan 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	2.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.00E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 26	RELEASE ACTIVITY: Keeshan 20 dy	
FACILITY NAME: KEESHAN AND CO-MANVEL		
FACILITY LOCATION: MANVEL TX 77578		
RECEIVING WATER NAME: WEST BAY		
REACH NUMBER: 12040204020	FACILITY ON REACH: No	DISCHARGE TYPE: Direct
NPDES PERMIT #: TX0072168	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	20.	1.00E-02	0.001	1.00E-03	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	100.00
CHRONIC SCENARIO	1.00	100.00

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:27

Number of Release Sites: 1.

Release Activity: PhillipsLA 350 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	20.55 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	5.87E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER:27      RELEASE ACTIVITY: PhillipsLA 350 dy  
 FACILITY NAME: CONOCO INC-LAKE CHARLES REFINE  
 FACILITY LOCATION: WESTLAKE LA 70669  
 RECEIVING WATER NAME: CALCASIEU R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 08080206033                      No  
 NPDES PERMIT #: LA0003026      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	350.	0.0587	5.87E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	3326.14	935.46	634.15	514.19	NA
CONCENTRATION (µg/L)	1.76E-02	6.27E-02	9.26E-02	0.11	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	9.31E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	7.16E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	2.38E-06 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER  
RELEASES**

SCENARIO NUMBER: 27                      RELEASE ACTIVITY: PhillipsLA 350 dy

FACILITY NAME: CONOCO INC-LAKE CHARLES REFINE

FACILITY LOCATION: WESTLAKE LA 70669

RECEIVING STREAM NAME: CALCASIEU R

REACH NUMBER: 08080206033      FACILITY ON REACH:      DISCHARGE TYPE:  
No    Direct

NPDES PERMIT NUMBER:                  GAGING STATION ID: N/A  
LA0003026

GAGING STATION PERIOD OF      GAGING STATION                  NUMBER OF  
RECORD: N/A                                  NUMBER OF                          STATIONS ON REACH:  
OBSERVATIONS: N/A                          N/A

MEAN FLOW (MLD): 1.08E+04      7q10 FLOW (MLD): 634.15      EFFLUENT FLOW  
(MLD):16.28

**RESULTS**

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	350.00	5.87E-02	0.00
360.00	0	0	350.00	5.87E-02	0.00
1400.00	0	0	350.00	5.87E-02	0.00



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:28

Number of Release Sites: 1.

Release Activity: PhillipsLA 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	20.60 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

**INITIAL EXPOSURE REVIEW REPORT**

Chemical ID: PERC Proc 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER: 28                      RELEASE ACTIVITY: PhillipsLA 20 dy  
 FACILITY NAME: CONOCO INC-LAKE CHARLES REFINE  
 FACILITY LOCATION: WESTLAKE LA 70669  
 RECEIVING WATER NAME: CALCASIEU R  
 REACH NUMBER:                              FACILITY ON REACH:    DISCHARGE TYPE: Direct  
 08080206033                                      No  
 NPDES PERMIT #: LA0003026    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	1.03	1.03	0.00	0.00

<b>AQUATIC EXPOSURE ESTIMATES - SURFACE WATER</b>					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	3326.14	935.46	634.15	514.19	NA
CONCENTRATION (µg/L)	0.31	1.10	1.62	2.00	NA

<b>DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES</b>				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	9.33E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	7.18E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	4.17E-05 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:29

Number of Release Sites: 1.

Release Activity: Premcor 350 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	45.50 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	0.13 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER:29                      RELEASE ACTIVITY: Premcor 350 dy  
 FACILITY NAME: PREMCOR REFINING GROUP INC.  
 FACILITY LOCATION: PORT ARTHUR TX 77641  
 RECEIVING WATER NAME: TAYLOR BAYOU  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 12040201009                                  No  
 NPDES PERMIT #: TX0005991      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	350.	0.13	0.13	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	376.67	104.19	65.38	65.38	NA
CONCENTRATION (µg/L)	0.35	1.25	1.99	1.99	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.82E-06 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.40E-04 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	4.73E-05 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER  
RELEASES

SCENARIO NUMBER: 29                      RELEASE ACTIVITY: Premcor 350 dy

FACILITY NAME: PREMCOR REFINING GROUP INC.

FACILITY LOCATION: PORT ARTHUR TX 77641

RECEIVING STREAM NAME: TAYLOR BAYOU

REACH NUMBER: 12040201009      FACILITY ON REACH:      DISCHARGE TYPE:  
No    Direct

NPDES PERMIT NUMBER:              GAGING STATION ID: N/A  
TX0005991

GAGING STATION PERIOD OF      GAGING STATION              NUMBER OF  
RECORD: N/A                              NUMBER OF                      STATIONS ON REACH:  
OBSERVATIONS: N/A                      N/A

MEAN FLOW (MLD): 1531.34      7q10 FLOW (MLD): 65.38      EFFLUENT FLOW  
(MLD):65.38

RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	350.00	0.13	0.00
360.00	0	0	350.00	0.13	0.00
1400.00	0	0	350.00	0.13	0.00



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:30

Number of Release Sites: 1.

Release Activity: Premcor 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	45.00 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	2.25 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:30                      RELEASE ACTIVITY: Premcor 20 dy  
 FACILITY NAME: PREMCOR REFINING GROUP INC.  
 FACILITY LOCATION: PORT ARTHUR TX 77641  
 RECEIVING WATER NAME: TAYLOR BAYOU  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 12040201009                                  No  
 NPDES PERMIT #: TX0005991      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	2.25	2.25	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	376.67	104.19	65.38	65.38	NA
CONCENTRATION (µg/L)	5.97	21.60	34.41	34.41	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.80E-06 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.38E-04 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	8.18E-04 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:31

Number of Release Sites: 1.

Release Activity: Solutia 350 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	5.99E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	1.71E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:31                      RELEASE ACTIVITY: Solutia 350 dy  
 FACILITY NAME: FLEXSYS AMERICA LP  
 FACILITY LOCATION: NITRO WV 25143  
 RECEIVING WATER NAME: KANAWHA R  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 05050008007                                  Yes  
 NPDES PERMIT #: WV0000868    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	350.	0.00017	1.71E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	1.50E+04	4737.79	3400.47	2724.98	NA
CONCENTRATION (µg/L)	1.14E-05	3.61E-05	5.03E-05	6.28E-05	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	6.03E-11 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	4.64E-09 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.37E-09 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

### SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 31          RELEASE ACTIVITY: Solutia 350 dy  
FACILITY NAME: FLEXXSYS AMERICA LP  
FACILITY LOCATION: NITRO WV 25143  
RECEIVING STREAM NAME: KANAWHA R  
REACH NUMBER: 05050008007      FACILITY ON REACH:      DISCHARGE TYPE:  
   Yes                              Direct  
NPDES PERMIT NUMBER:          GAGING STATION ID: N/A  
WV0000868  
GAGING STATION PERIOD OF      GAGING STATION          NUMBER OF  
RECORD: N/A                              NUMBER OF                  STATIONS ON REACH:  
   OBSERVATIONS: N/A          N/A  
MEAN FLOW (MLD): 3.65E+04      7q10 FLOW (MLD):          EFFLUENT FLOW  
   3400.47                              (MLD):5.50

RESULTS					
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	350.00	1.71E-04	0.00
360.00	0	0	350.00	1.71E-04	0.00
1400.00	0	0	350.00	1.71E-04	0.00



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:32

Number of Release Sites: 1.

Release Activity: Solutia 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	6.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	3.00E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:32                      RELEASE ACTIVITY: Solutia 20 dy  
 FACILITY NAME: FLEXSYS AMERICA LP  
 FACILITY LOCATION: NITRO WV 25143  
 RECEIVING WATER NAME: KANAWHA R  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 05050008007                                  Yes  
 NPDES PERMIT #: WV0000868 EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.003	3.00E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	1.50E+04	4737.79	3400.47	2724.98	NA
CONCENTRATION (µg/L)	2.01E-04	6.33E-04	8.82E-04	1.10E-03	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	6.05E-11 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	4.65E-09 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	2.40E-08 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

### SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 32                      RELEASE ACTIVITY: Solutia 20 dy

FACILITY NAME: FLEXSYS AMERICA LP

FACILITY LOCATION: NITRO WV 25143

RECEIVING STREAM NAME: KANAWHA R

REACH NUMBER: 05050008007      FACILITY ON REACH:      DISCHARGE TYPE:  
    Yes                                      Direct

NPDES PERMIT NUMBER:              GAGING STATION ID: N/A  
 WV0000868

GAGING STATION PERIOD OF      GAGING STATION                      NUMBER OF  
 RECORD: N/A                                      NUMBER OF                                      STATIONS ON REACH:  
    OBSERVATIONS: N/A                                      N/A

MEAN FLOW (MLD): 3.65E+04      7q10 FLOW (MLD):                      EFFLUENT FLOW  
    3400.47                                      (MLD):5.50

RESULTS					
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	20.00	3.00E-03	0.00
360.00	0	0	20.00	3.00E-03	0.00
1400.00	0	0	20.00	3.00E-03	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:33

Number of Release Sites: 1.

Release Activity: Solvay 350 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	8.26 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	2.36E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:33                      RELEASE ACTIVITY: Solvay 350 dy  
 FACILITY NAME: RHODIA INC.  
 FACILITY LOCATION: HOUSTON TX 77262  
 RECEIVING WATER NAME: BUFFALO BAYOU  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 12040104017                                  Yes  
 NPDES PERMIT #: TX0007072      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	350.	0.0236	2.36E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	110.16	9.37	5.40	4.53	NA
CONCENTRATION (µg/L)	0.21	2.52	4.37	5.21	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.13E-06 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	8.69E-05 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	9.54E-05 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:





INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:34

Number of Release Sites: 1.

Release Activity: Solvay 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	8.20 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.41 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:34                      RELEASE ACTIVITY: Solvay 20 dy  
 FACILITY NAME: RHODIA INC.  
 FACILITY LOCATION: HOUSTON TX 77262  
 RECEIVING WATER NAME: BUFFALO BAYOU  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 12040104017                                  Yes  
 NPDES PERMIT #: TX0007072      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.41	0.41	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	110.16	9.37	5.40	4.53	NA
CONCENTRATION (µg/L)	3.72	43.77	75.93	90.57	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.12E-06 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	8.63E-05 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.66E-03 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES
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SCENARIO NUMBER: 34                      RELEASE ACTIVITY: Solvay 20 dy

FACILITY NAME: RHODIA INC.

FACILITY LOCATION: HOUSTON TX 77262

RECEIVING STREAM NAME: BUFFALO BAYOU

REACH NUMBER: 12040104017      FACILITY ON REACH:      DISCHARGE TYPE:

  Yes    Direct

NPDES PERMIT NUMBER:                  GAGING STATION ID: N/A

TX0007072

GAGING STATION PERIOD OF      GAGING STATION                  NUMBER OF

RECORD: N/A    NUMBER OF                  STATIONS ON REACH:

  OBSERVATIONS: N/A                  N/A

MEAN FLOW (MLD): 2090.31      7q10 FLOW (MLD): 5.40      EFFLUENT FLOW

  (MLD):2.76

RESULTS					
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	20.00	0.41	0.00
360.00	0	0	20.00	0.41	0.00
1400.00	0	0	20.00	0.41	0.00



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Proc 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:1

Number of Release Sites: 1.

Release Activity: Phillips 350 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	38.50 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	350.00	0.00/0.00	N/A	N/A
Per Site Release:	0.11 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC Proc 88

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 1	RELEASE ACTIVITY: Phillips 350 dy	
FACILITY NAME: LOS ANGELES CITY OF		
FACILITY LOCATION: SAN PEDRO CA 907317493		
RECEIVING WATER NAME: PACIFIC OCEAN		
REACH NUMBER: 18070104003	FACILITY ON REACH: Yes	DISCHARGE TYPE: Direct
NPDES PERMIT #: CA0053856	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
88.	350.	69.55	0.11	1.32E-02	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	0.19
CHRONIC SCENARIO	1.00	0.19

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:



**4. OES: INCORPORATION INTO FORMULATION**

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Inc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 1

Number of Release Sites: 1.

Release Activity: Stepan 300 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
		Non-sludge/Sludge		

Total Releases:	0.50	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	1.67E-03	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Inc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:1                      RELEASE ACTIVITY: Stepan 300 dy  
 FACILITY NAME: STEPAN COMPANY-ELWOOD  
 FACILITY LOCATION: ELWOOD IL 60421  
 RECEIVING WATER NAME: DES PLAINS R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 07120004006                              No  
 NPDES PERMIT #: IL0002453      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	300.	0.00167	1.67E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	6250.28	3366.14	2387.10	1917.66	NA
CONCENTRATION (µg/L)	2.67E-04	4.96E-04	7.00E-04	8.71E-04	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.21E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	9.29E-08 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.88E-08 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Inc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Stepan 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.50 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	2.50E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Inc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:2                      RELEASE ACTIVITY: Stepan 20 dy  
 FACILITY NAME: STEPAN COMPANY-ELWOOD  
 FACILITY LOCATION: ELWOOD IL 60421  
 RECEIVING WATER NAME: DES PLAINS R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 07120004006                              No  
 NPDES PERMIT #: IL0002453      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.025	2.50E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	6250.28	3366.14	2387.10	1917.66	NA
CONCENTRATION (µg/L)	4.00E-03	7.43E-03	1.05E-02	1.30E-02	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.21E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	9.27E-08 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	2.81E-07 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Inc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER  
RELEASES

SCENARIO NUMBER: 2                      RELEASE ACTIVITY: Stepan 20 dy

FACILITY NAME: STEPAN COMPANY-ELWOOD

FACILITY LOCATION: ELWOOD IL 60421

RECEIVING STREAM NAME: DES PLAINS R

REACH NUMBER: 07120004006      FACILITY ON REACH:      DISCHARGE TYPE:  
No    Direct

NPDES PERMIT NUMBER:              GAGING STATION ID: N/A  
IL0002453

GAGING STATION PERIOD OF      GAGING STATION              NUMBER OF  
RECORD: N/A                              NUMBER OF                      STATIONS ON REACH:  
OBSERVATIONS: N/A                      N/A

MEAN FLOW (MLD): 8726.51      7q10 FLOW (MLD):              EFFLUENT FLOW  
2387.10                                      (MLD):2.77

RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	20.00	2.50E-02	0.00
360.00	0	0	20.00	2.50E-02	0.00
1400.00	0	0	20.00	2.50E-02	0.00



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Inc 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:1

Number of Release Sites: 1.

Release Activity: Lord 300 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1578.00 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	5.26 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Inc 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE ACTIVITY: Lord 300 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	300.	5.26	0.63	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	2.19	5.10	8.07	9.56
ALL	10	39.60	13.29	7.76	7.57	15.94	47.49	81.34	83.38

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	9.91E-06	7.21E-05	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	7.62E-04	5.54E-03	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.93E-04	1.80E-03	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Inc 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1

RELEASE ACTIVITY: Lord 300 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	22	81	300.00	5.26	88.00	High
360.00	1	3	300.00	5.26	88.00	High
1400.00	0	0	300.00	5.26	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Inc 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Lord 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1578.60 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	78.93 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Inc 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2                                  Number of Sites: 1                                  RELEASE ACTIVITY: Lord 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                                  EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	20.	78.93	9.47	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	32.89	76.48	121.15	143.40
ALL	10	39.60	13.29	7.76	7.57	239.18	712.69	1220.57	1251.20

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	9.91E-06	7.21E-05	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	7.62E-04	5.54E-03	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.90E-03	2.70E-02	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Inc 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2

RELEASE ACTIVITY: Lord 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	5	19	20.00	78.93	88.00	High
360.00	3	10	20.00	78.93	88.00	High
1400.00	1	2	20.00	78.93	88.00	High



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Inc 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:3

Number of Release Sites: 1.

Release Activity: Tesoro 300 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	99.00 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	0.33 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC Inc 88

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 3	RELEASE ACTIVITY: Tesoro 300 dy	
FACILITY NAME: LOS ANGELES COUNTY SAN DIST		
FACILITY LOCATION: CARSON CA 90745		
RECEIVING WATER NAME: PACIFIC OCEAN		
REACH NUMBER: 18070104003	FACILITY ON REACH: Yes	DISCHARGE TYPE: Direct
NPDES PERMIT #: CA0053813	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
88.	300.	1494.88	0.33	3.96E-02	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	166.00	1.60E-04
CHRONIC SCENARIO	166.00	1.60E-04

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Inc 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:4

Number of Release Sites: 1.

Release Activity: Weatherford 300 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.45 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	1.50E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Inc 88

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:4                      RELEASE ACTIVITY: Weatherford 300 dy  
 FACILITY NAME: WEATHERFORD CITY OF  
 FACILITY LOCATION: WEATHERFORD TX 76086  
 RECEIVING WATER NAME: WILLOW CR  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 12030102032                      No  
 NPDES PERMIT #: TX0047724    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.	300.	0.0015	1.80E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	18.09	10.59	6.13	6.13	NA
CONCENTRATION (µg/L)	9.95E-03	1.70E-02	2.94E-02	2.94E-02	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	4.50E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	3.46E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	6.44E-07 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

# INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Inc 88

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER: 4                      RELEASE ACTIVITY: Weatherford 300 dy

FACILITY NAME: WEATHERFORD CITY OF

FACILITY LOCATION: WEATHERFORD TX 76086

RECEIVING STREAM NAME: WILLOW CR

REACH NUMBER: 12030102032      FACILITY ON REACH:      DISCHARGE TYPE:  
No    Direct

NPDES PERMIT NUMBER:              GAGING STATION ID: N/A  
TX0047724

GAGING STATION PERIOD OF      GAGING STATION              NUMBER OF  
RECORD: N/A                              NUMBER OF                      STATIONS ON REACH:  
OBSERVATIONS: N/A                      N/A

MEAN FLOW (MLD): 39.54              7q10 FLOW (MLD): 6.13      EFFLUENT FLOW  
(MLD):6.13

RESULTS					
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	300.00	1.50E-03	88.00
360.00	0	0	300.00	1.50E-03	88.00
1400.00	0	0	300.00	1.50E-03	88.00

**5. OES: OTVD (INCLUDES RELEASES FOR CLOSED-LOOP DEGREASING, CONVEYORIZED DEGREASING, WEB DEGREASING, COLD CLEANING, AND METAL WORKING FLUIDS)**

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 1

Number of Release Sites: 1.

Release Activity: Nassau 260 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	2.44E-03	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	9.40E-06	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE ACTIVITY:Nassau 260 dy

SIC-CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

SIC-CODE (S): 3315-3317,3351-3357,3463,3497                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	260.	9.40e-06	9.40E-06	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	485.40	206.33	132.62	108.72	1.94E-05	4.56E-05	7.09E-05	8.65E-05
ALL	10	43.45	15.35	9.00	7.91	2.16E-04	6.12E-04	1.04E-03	1.19E-03

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	7.59E-11	8.48E-10	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	5.84E-09	6.52E-08	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.73E-09	2.32E-08	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      RELEASE ACTIVITY: Nassau 260 dy

SIC CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

ASSOCIATED SIC CODES: 3315-3317,3351-3357,3463,3497

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	260.00	9.00E-06	0.00	High
360.00	0	0	260.00	9.00E-06	0.00	High
1400.00	0	0	260.00	9.00E-06	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Nassau 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	2.44E-03 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.22E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2                                      Number of Sites: 1                                      RELEASE ACTIVITY:Nassau 20 dy

SIC-CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

SIC-CODE (S): 3315-3317,3351-3357,3463,3497                                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.00012	1.22E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	485.40	206.33	132.62	108.72	2.51E-04	5.91E-04	9.20E-04	1.12E-03
ALL	10	43.45	15.35	9.00	7.91	2.81E-03	7.95E-03	1.36E-02	1.54E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	7.57E-11	8.46E-10	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	5.83E-09	6.51E-08	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.24E-08	3.01E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2                      RELEASE ACTIVITY: Nassau 20 dy

SIC CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

ASSOCIATED SIC CODES: 3315-3317,3351-3357,3463,3497

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	1.22E-04	0.00	High
360.00	0	0	20.00	1.22E-04	0.00	High
1400.00	0	0	20.00	1.22E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:3

Number of Release Sites: 1.

Release Activity: ASCO 260 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.69E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	1.42E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 3                                      Number of Sites: 1                                      RELEASE ACTIVITY: ASCO 260 dy

SIC-CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

SIC-CODE (S): 3315-3317,3351-3357,3463,3497                                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	260.	0.00014	1.42E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	485.40	206.33	132.62	108.72	2.93E-04	6.88E-04	1.07E-03	1.31E-03
ALL	10	43.45	15.35	9.00	7.91	3.27E-03	9.25E-03	1.58E-02	1.80E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.15E-09	1.28E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	8.82E-08	9.85E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.61E-08	3.50E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 3                      RELEASE ACTIVITY: ASCO 260 dy

SIC CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

ASSOCIATED SIC CODES: 3315-3317,3351-3357,3463,3497

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	260.00	1.42E-04	0.00	High
360.00	0	0	260.00	1.42E-04	0.00	High
1400.00	0	0	260.00	1.42E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:4

Number of Release Sites: 1.

Release Activity: ASCO 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.70E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.85E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4                                      Number of Sites: 1                                      RELEASE ACTIVITY: ASCO 20 dy

SIC-CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

SIC-CODE (S): 3315-3317,3351-3357,3463,3497                                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.00185	1.85E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	485.40	206.33	132.62	108.72	3.81E-03	8.97E-03	1.39E-02	1.70E-02
ALL	10	43.45	15.35	9.00	7.91	4.26E-02	0.12	0.21	0.23

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.15E-09	1.28E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	8.84E-08	9.87E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	3.40E-07	4.56E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4                      RELEASE ACTIVITY: ASCO 20 dy

SIC CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

ASSOCIATED SIC CODES: 3315-3317,3351-3357,3463,3497

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	1.85E-03	0.00	High
360.00	0	0	20.00	1.85E-03	0.00	High
1400.00	0	0	20.00	1.85E-03	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:5

Number of Release Sites: 1.

Release Activity: Chemours 260 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.69 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	6.49E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:



INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC OTVD 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:5                      RELEASE ACTIVITY: Chemours 260 dy  
 FACILITY NAME: E.I. DUPONT DE NEMOURS AND COM  
 FACILITY LOCATION: JEFFERSON COUNTY TX  
 RECEIVING WATER NAME: NECHES R  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 12020003001                                  Yes  
 NPDES PERMIT #: TX0004669      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	260.	0.00649	6.49E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	4712.12	1034.72	703.93	570.35	NA
CONCENTRATION (µg/L)	1.38E-03	6.27E-03	9.22E-03	1.14E-02	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	5.40E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	4.15E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	2.38E-07 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER: 5                      RELEASE ACTIVITY: Chemours 260 dy

FACILITY NAME: E.I. DUPONT DE NEMOURS AND COM

FACILITY LOCATION: JEFFERSON COUNTY TX

RECEIVING STREAM NAME: NECHES R

REACH NUMBER: 12020003001      FACILITY ON REACH:      DISCHARGE TYPE:  
Yes                                      Direct

NPDES PERMIT NUMBER:      GAGING STATION ID: N/A  
TX0004669

GAGING STATION PERIOD OF      GAGING STATION      NUMBER OF  
RECORD: N/A                                  NUMBER OF                      STATIONS ON REACH:  
OBSERVATIONS: N/A                                  N/A

MEAN FLOW (MLD): 2.00E+04      7q10 FLOW (MLD): 703.93      EFFLUENT FLOW  
(MLD):23.33

<b>RESULTS</b>
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COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	260.00	6.49E-03	0.00
360.00	0	0	260.00	6.49E-03	0.00
1400.00	0	0	260.00	6.49E-03	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:6

Number of Release Sites: 1.

Release Activity: Chemours 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.69 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	8.44E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC OTVD 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:6                      RELEASE ACTIVITY: Chemours 20 dy  
 FACILITY NAME: E.I. DUPONT DE NEMOURS AND COM  
 FACILITY LOCATION: JEFFERSON COUNTY TX  
 RECEIVING WATER NAME: NECHES R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 12020003001                      Yes  
 NPDES PERMIT #: TX0004669      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.0844	8.44E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	4712.12	1034.72	703.93	570.35	NA
CONCENTRATION (µg/L)	1.79E-02	8.16E-02	0.12	0.15	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	5.40E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	4.15E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	3.09E-06 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:7

Number of Release Sites: 1.

Release Activity: Delphi 260 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.68 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	6.46E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:



INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC OTVD 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER: 7                      RELEASE ACTIVITY: Delphi 260 dy  
 FACILITY NAME: GMC-DELPHI HARRISON  
 FACILITY LOCATION: MORaine OH 45439  
 RECEIVING WATER NAME: GREAT MIAMI R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 05080002009                      Yes  
 NPDES PERMIT #: OH0009431    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	260.	0.00646	6.46E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	2284.23	789.03	531.69	431.64	NA
CONCENTRATION (µg/L)	2.83E-03	8.19E-03	1.21E-02	1.50E-02	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.11E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	8.52E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	3.10E-07 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:8

Number of Release Sites: 1.

Release Activity: Delphi 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.68 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	8.40E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC OTVD 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:8                      RELEASE ACTIVITY: Delphi 20 dy  
 FACILITY NAME: GMC-DELPHI HARRISON  
 FACILITY LOCATION: MORaine OH 45439  
 RECEIVING WATER NAME: GREAT MIAMI R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 05080002009                      Yes  
 NPDES PERMIT #: OH0009431    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.084	8.40E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	2284.23	789.03	531.69	431.64	NA
CONCENTRATION (µg/L)	3.68E-02	0.11	0.16	0.19	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.11E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	8.53E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	4.03E-06 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:9

Number of Release Sites: 1.

Release Activity: Equistar 260 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.25 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	1.25E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:



INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC OTVD 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 9	RELEASE ACTIVITY: Equistar 260 dy	
FACILITY NAME: MILLENNIUM PETROCHEMICALS INC.		
FACILITY LOCATION: LAPORTE TX 77572		
RECEIVING WATER NAME: GALVESTON BAY		
REACH NUMBER: 12040104028	FACILITY ON REACH: Yes	DISCHARGE TYPE: Direct
NPDES PERMIT #: TX0002836	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	260.	49.49	0.0125	1.25E-02	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	0.25
CHRONIC SCENARIO	12.50	2.02E-02

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:10

Number of Release Sites: 1.

Release Activity: Equistar 20 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	3.20	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.16	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC OTVD 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 10	RELEASE ACTIVITY: Equistar 20 dy	
FACILITY NAME: MILLENNIUM PETROCHEMICALS INC.		
FACILITY LOCATION: LAPORTE TX 77572		
RECEIVING WATER NAME: GALVESTON BAY		
REACH NUMBER: 12040104028	FACILITY ON REACH: Yes	DISCHARGE TYPE: Direct
NPDES PERMIT #: TX0002836	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	20.	49.49	0.16	0.16	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	3.23
CHRONIC SCENARIO	12.50	0.26

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:11

Number of Release Sites: 1.

Release Activity: Fairfield 260 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.06 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	4.09E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC OTVD 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:11                      RELEASE ACTIVITY: Fairfield 260 dy  
 FACILITY NAME: USX CORP FAIRFIELD WORKS  
 FACILITY LOCATION: FAIRFIELD AL 35064  
 RECEIVING WATER NAME: VILLAGE CR  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 03160111004                                  Yes  
 NPDES PERMIT #: AL0003646      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	260.	0.00409	4.09E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	1085.05	1151.89	786.61	786.61	NA
CONCENTRATION (µg/L)	3.77E-03	3.55E-03	5.20E-03	5.20E-03	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.48E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.14E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.34E-07 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:





INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:12

Number of Release Sites: 1.

Release Activity: Fairfield 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.06 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	5.32E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC OTVD 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:12                      RELEASE ACTIVITY: Fairfield 20 dy  
 FACILITY NAME: USX CORP FAIRFIELD WORKS  
 FACILITY LOCATION: FAIRFIELD AL 35064  
 RECEIVING WATER NAME: VILLAGE CR  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 03160111004                                  Yes  
 NPDES PERMIT #: AL0003646      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.0532	5.32E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	1085.05	1151.89	786.61	786.61	NA
CONCENTRATION (µg/L)	4.90E-02	4.62E-02	6.76E-02	6.76E-02	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.48E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.14E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.75E-06 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER: 12	RELEASE ACTIVITY: Fairfield 20 dy	
FACILITY NAME: USX CORP FAIRFIELD WORKS		
FACILITY LOCATION: FAIRFIELD AL 35064		
RECEIVING STREAM NAME: VILLAGE CR		
REACH NUMBER: 03160111004	FACILITY ON REACH: Yes	DISCHARGE TYPE: Direct
NPDES PERMIT NUMBER: AL0003646	GAGING STATION ID: 02460500	
GAGING STATION PERIOD OF RECORD: 02/01/73 - 01/17/82	GAGING STATION NUMBER OF OBSERVATIONS: 3211.00	NUMBER OF STATIONS ON REACH: 3
50 %ile FLOW (MLD): 335.10	10 %ile FLOW (MLD): 163.88	EFFLUENT FLOW (MLD):786.61

RESULTS					
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	20.00	5.32E-02	0.00
360.00	0	0	20.00	5.32E-02	0.00
1400.00	0	0	20.00	5.32E-02	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
------------------------

Scenario#:13

Number of Release Sites: 1.

Release Activity: Gayston 260 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.81 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	3.12E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 13                      Number of Sites: 1                      RELEASE ACTIVITY: Gayston 260 dy

SIC-CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

SIC-CODE (S): 3315-3317,3351-3357,3463,3497                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	260.	0.00312	3.12E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	3Q5	7Q10	1Q10	Harmonic Mean	3Q5	7Q10	1Q10
ALL	50	485.40	206.33	132.62	108.72	6.43E-03	1.51E-02	2.35E-02	2.87E-02
ALL	10	43.45	15.35	9.00	7.91	7.18E-02	0.20	0.35	0.39

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.52E-08	2.81E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.94E-06	2.16E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	5.73E-07	7.70E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 13                      RELEASE ACTIVITY: Gayston 260 dy

SIC CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

ASSOCIATED SIC CODES: 3315-3317,3351-3357,3463,3497

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	2	6	260.00	3.12E-03	0.00	High
360.00	0	0	260.00	3.12E-03	0.00	High
1400.00	0	0	260.00	3.12E-03	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:14

Number of Release Sites: 1.

Release Activity: Gayston 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.81 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	4.06E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 14                      Number of Sites: 1                      RELEASE ACTIVITY: Gayston 20 dy

SIC-CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

SIC-CODE (S): 3315-3317,3351-3357,3463,3497                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.0406	4.06E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	3Q5	7Q10	1Q10	Harmonic Mean	3Q5	7Q10	1Q10
ALL	50	485.40	206.33	132.62	108.72	8.36E-02	0.20	0.31	0.37
ALL	10	43.45	15.35	9.00	7.91	0.93	2.64	4.51	5.13

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.52E-08	2.82E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.94E-06	2.17E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	7.45E-06	1.00E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 14                      RELEASE ACTIVITY: Gayston 20 dy

SIC CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

ASSOCIATED SIC CODES: 3315-3317,3351-3357,3463,3497

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	2	20.00	4.06E-02	0.00	High
360.00	0	1	20.00	4.06E-02	0.00	High
1400.00	0	0	20.00	4.06E-02	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:15

Number of Release Sites: 1.

Release Activity: GM 260 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	18.41 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	7.08E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

**INITIAL EXPOSURE REVIEW REPORT**

Chemical ID: PERC OTVD 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER:15                      RELEASE ACTIVITY: GM 260 dy

FACILITY NAME: DELPHI HARRISON THERMAL SYS

FACILITY LOCATION: LOCKPORT NY 14094

RECEIVING WATER NAME: EIGHTEENMILE CR E BR

REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 04130001018                                      No

NPDES PERMIT #: NY0000558    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	260.	0.0708	7.08E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	41.37	20.01	11.85	11.85	NA
CONCENTRATION (µg/L)	1.71	3.54	5.97	5.97	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	6.70E-06 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	5.16E-04 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.34E-04 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:





INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 16

Number of Release Sites: 1.

Release Activity: GM 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	18.40 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.92 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC OTVD 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:16                      RELEASE ACTIVITY: GM 20 dy  
 FACILITY NAME: DELPHI HARRISON THERMAL SYS  
 FACILITY LOCATION: LOCKPORT NY 14094  
 RECEIVING WATER NAME: EIGHTEENMILE CR E BR  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 04130001018                                  No  
 NPDES PERMIT #: NY0000558    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.92	0.92	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	41.37	20.01	11.85	11.85	NA
CONCENTRATION (µg/L)	22.24	45.97	77.64	77.64	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	6.70E-06 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	5.16E-04 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.74E-03 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:17

Number of Release Sites: 1.

Release Activity: HB 260 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.21 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	7.90E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 17                      Number of Sites: 1                      RELEASE ACTIVITY: HB  
260 dy

SIC-CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

SIC-CODE (S): 3315-3317,3351-3357,3463,3497                      EXPOSED POPULATION:  
Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	260.	0.00079	7.90E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	485.40	206.33	132.62	108.72	1.63E-03	3.83E-03	5.96E-03	7.27E-03
ALL	10	43.45	15.35	9.00	7.91	1.82E-02	5.15E-02	8.78E-02	9.99E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	6.38E-09	7.12E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.90E-07	5.48E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.45E-07	1.95E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 17

RELEASE ACTIVITY: HB 260 dy

SIC CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

ASSOCIATED SIC CODES: 3315-3317,3351-3357,3463,3497

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	260.00	7.90E-04	0.00	High
360.00	0	0	260.00	7.90E-04	0.00	High
1400.00	0	0	260.00	7.90E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:18

Number of Release Sites: 1.

Release Activity: HB 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.21 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.03E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 18                      Number of Sites: 1                      RELEASE ACTIVITY: HB  
20 dy

SIC-CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

SIC-CODE (S): 3315-3317,3351-3357,3463,3497                      EXPOSED POPULATION:  
Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.0103	1.03E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	485.40	206.33	132.62	108.72	2.12E-02	4.99E-02	7.77E-02	9.47E-02
ALL	10	43.45	15.35	9.00	7.91	0.24	0.67	1.14	1.30

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	6.39E-09	7.14E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.92E-07	5.50E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.89E-06	2.54E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 18                      RELEASE ACTIVITY: HB 20 dy

SIC CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

ASSOCIATED SIC CODES: 3315-3317,3351-3357,3463,3497

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	1	20.00	1.03E-02	0.00	High
360.00	0	0	20.00	1.03E-02	0.00	High
1400.00	0	0	20.00	1.03E-02	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:19

Number of Release Sites: 1.

Release Activity: Hyster 260 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	2.34E-04 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	9.00E-07 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 19                      Number of Sites: 1                      RELEASE ACTIVITY:Hyster 260 dy

SIC-CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

SIC-CODE (S): 3315-3317,3351-3357,3463,3497                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	260.	9.00e-07	9.00E-07	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	485.40	206.33	132.62	108.72	1.85E-06	4.36E-06	6.79E-06	8.28E-06
ALL	10	43.45	15.35	9.00	7.91	2.07E-05	5.86E-05	1.00E-04	1.14E-04

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	7.26E-12	8.12E-11	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	5.59E-10	6.24E-09	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.65E-10	2.22E-09	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 19                      RELEASE ACTIVITY: Hyster 260 dy

SIC CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

ASSOCIATED SIC CODES: 3315-3317,3351-3357,3463,3497

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	260.00	1.00E-06	0.00	High
360.00	0	0	260.00	1.00E-06	0.00	High
1400.00	0	0	260.00	1.00E-06	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:20

Number of Release Sites: 1.

Release Activity: Hyster 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	2.34E-04 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.17E-05 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 20                      Number of Sites: 1                      RELEASE ACTIVITY:Hyster 20 dy

SIC-CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

SIC-CODE (S): 3315-3317,3351-3357,3463,3497                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.00001	1.17E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	485.40	206.33	132.62	108.72	2.41E-05	5.67E-05	8.82E-05	1.08E-04
ALL	10	43.45	15.35	9.00	7.91	2.69E-04	7.62E-04	1.30E-03	1.48E-03

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	7.26E-12	8.12E-11	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	5.59E-10	6.24E-09	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.15E-09	2.89E-08	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 20

RELEASE ACTIVITY: Hyster 20 dy

SIC CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

ASSOCIATED SIC CODES: 3315-3317,3351-3357,3463,3497

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	1.20E-05	0.00	High
360.00	0	0	20.00	1.20E-05	0.00	High
1400.00	0	0	20.00	1.20E-05	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:21

Number of Release Sites: 1.

Release Activity: MEMC 260 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	6.79E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	2.61E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC OTVD 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:21                      RELEASE ACTIVITY: MEMC 260 dy  
 FACILITY NAME: MEMC ELECTRONIC MATERIALS INC  
 FACILITY LOCATION: MOORE SC 29369  
 RECEIVING WATER NAME: S TYGER R  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 03050107022                                  Yes  
 NPDES PERMIT #: SC0036145      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	260.	0.00026	2.61E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	132.02	48.63	29.71	24.61	NA
CONCENTRATION (µg/L)	1.98E-03	5.37E-03	8.78E-03	1.06E-02	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	7.75E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	5.96E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	2.03E-07 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



# INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER: 21                      RELEASE ACTIVITY: MEMC 260 dy

FACILITY NAME: MEMC ELECTRONIC MATERIALS INC

FACILITY LOCATION: MOORE SC 29369

RECEIVING STREAM NAME: S TYGER R

REACH NUMBER: 03050107022    FACILITY ON REACH:        DISCHARGE TYPE:  
    Yes                              Direct

NPDES PERMIT NUMBER:                  GAGING STATION ID: 02158500  
SC0036145

GAGING STATION PERIOD OF        GAGING STATION                  NUMBER OF  
RECORD: 01/01/66 - 11/29/67      NUMBER OF                        STATIONS ON REACH:  
    OBSERVATIONS: 699.00                  1

50 %ile FLOW (MLD): 327.76        10 %ile FLOW (MLD):        EFFLUENT FLOW  
    39.14                                (MLD):2.14

RESULTS					
COC ( $\mu\text{g/L}$ )	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	260.00	2.61E-04	0.00
360.00	0	0	260.00	2.61E-04	0.00
1400.00	0	0	260.00	2.61E-04	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:22

Number of Release Sites: 1.

Release Activity: MEMC 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	6.78E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	3.39E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

**INITIAL EXPOSURE REVIEW REPORT**

Chemical ID: PERC OTVD 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER:22                      RELEASE ACTIVITY: MEMC 20 dy

FACILITY NAME: MEMC ELECTRONIC MATERIALS INC

FACILITY LOCATION: MOORE SC 29369

RECEIVING WATER NAME: S TYGER R

REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
03050107022                                      Yes

NPDES PERMIT #: SC0036145      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.00339	3.39E-03	0.00	0.00

<b>AQUATIC EXPOSURE ESTIMATES - SURFACE WATER</b>					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	132.02	48.63	29.71	24.61	NA
CONCENTRATION (µg/L)	2.57E-02	6.97E-02	0.11	0.14	NA

<b>DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES</b>				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	7.74E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	5.95E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	2.64E-06 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:23

Number of Release Sites: 1.

Release Activity: Piano 260 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.19 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	7.17E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 23                      Number of Sites: 1                      RELEASE ACTIVITY:Piano 260 dy

SIC-CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

SIC-CODE (S): 3315-3317,3351-3357,3463,3497                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	260.	0.00072	7.17E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	485.40	206.33	132.62	108.72	1.48E-03	3.48E-03	5.41E-03	6.59E-03
ALL	10	43.45	15.35	9.00	7.91	1.65E-02	4.67E-02	7.97E-02	9.06E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	5.79E-09	6.47E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.45E-07	4.97E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.32E-07	1.77E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 23                      RELEASE ACTIVITY: Piano 260 dy

SIC CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

ASSOCIATED SIC CODES: 3315-3317,3351-3357,3463,3497

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	260.00	7.17E-04	0.00	High
360.00	0	0	260.00	7.17E-04	0.00	High
1400.00	0	0	260.00	7.17E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:24

Number of Release Sites: 1.

Release Activity: Piano 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.19 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	9.32E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 24                      Number of Sites: 1                      RELEASE ACTIVITY:Piano 20 dy

SIC-CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

SIC-CODE (S): 3315-3317,3351-3357,3463,3497                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.00932	9.32E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	3Q5	7Q10	1Q10	Harmonic Mean	3Q5	7Q10	1Q10
ALL	50	485.40	206.33	132.62	108.72	1.92E-02	4.52E-02	7.03E-02	8.57E-02
ALL	10	43.45	15.35	9.00	7.91	0.21	0.61	1.04	1.18

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	5.79E-09	6.46E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.45E-07	4.97E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.71E-06	2.30E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 24                      RELEASE ACTIVITY: Piano 20 dy

SIC CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

ASSOCIATED SIC CODES: 3315-3317,3351-3357,3463,3497

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	1	20.00	9.32E-03	0.00	High
360.00	0	0	20.00	9.32E-03	0.00	High
1400.00	0	0	20.00	9.32E-03	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:25

Number of Release Sites: 1.

Release Activity: Rex 260 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.50 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	1.94E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

**INITIAL EXPOSURE REVIEW REPORT**

Chemical ID: PERC OTVD 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER: 25                      RELEASE ACTIVITY: Rex 260 dy

FACILITY NAME: LANSDALE BORO

FACILITY LOCATION: LANSDALE PA 19446

RECEIVING WATER NAME: NESHAMINY R

REACH NUMBER:                              FACILITY ON REACH:    DISCHARGE TYPE: Direct  
 02040201011                                      No

NPDES PERMIT #: PA0026182    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	260.	0.00194	1.94E-03	0.00	0.00

<b>AQUATIC EXPOSURE ESTIMATES - SURFACE WATER</b>					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	216.46	60.30	37.12	30.70	NA
CONCENTRATION (µg/L)	8.96E-03	3.22E-02	5.23E-02	6.32E-02	NA

<b>DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES</b>				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	3.51E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.70E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.22E-06 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:





INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:26

Number of Release Sites: 1.

Release Activity: Rex 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.51 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	2.53E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC OTVD 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER: 26      RELEASE ACTIVITY: Rex 20 dy  
 FACILITY NAME: LANSDALE BORO  
 FACILITY LOCATION: LANSDALE PA 19446  
 RECEIVING WATER NAME: NESHAMINY R  
 REACH NUMBER: 02040201011      FACILITY ON REACH: No      DISCHARGE TYPE: Direct  
 NPDES PERMIT #: PA0026182      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.0253	2.53E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	216.46	60.30	37.12	30.70	NA
CONCENTRATION (µg/L)	0.12	0.42	0.68	0.82	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	3.52E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.71E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.59E-05 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:27

Number of Release Sites: 1.

Release Activity: Styrolution 260 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.17 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	6.37E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC OTVD 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER: 27      RELEASE ACTIVITY: Styrolution 260 dy  
 FACILITY NAME: BASF - JOLIET  
 FACILITY LOCATION: CHANNAHON IL 60410  
 RECEIVING WATER NAME: DES PLAINS R  
 REACH NUMBER: 07120004002      FACILITY ON REACH: Yes      DISCHARGE TYPE: Direct  
 NPDES PERMIT #: IL0001619      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	260.	0.00064	6.37E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	7537.30	4032.40	2877.81	2308.84	NA
CONCENTRATION (µg/L)	8.45E-05	1.58E-04	2.21E-04	2.76E-04	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	3.31E-10 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.55E-08 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	5.98E-09 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER  
RELEASES

SCENARIO NUMBER: 27                      RELEASE ACTIVITY: Styrolution 260 dy  
FACILITY NAME: BASF - JOLIET  
FACILITY LOCATION: CHANNAHON IL 60410  
RECEIVING STREAM NAME: DES PLAINS R  
REACH NUMBER: 07120004002      FACILITY ON REACH:      DISCHARGE TYPE:  
   Yes                                      Direct  
NPDES PERMIT NUMBER:              GAGING STATION ID: N/A  
IL0001619  
GAGING STATION PERIOD OF      GAGING STATION                      NUMBER OF  
RECORD: N/A    NUMBER OF                      STATIONS ON REACH:  
   OBSERVATIONS: N/A                      N/A  
MEAN FLOW (MLD): 1.04E+04      7q10 FLOW (MLD):                      EFFLUENT FLOW  
   2877.81    (MLD):0.90

RESULTS					
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	260.00	6.37E-04	0.00
360.00	0	0	260.00	6.37E-04	0.00
1400.00	0	0	260.00	6.37E-04	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:28

Number of Release Sites: 1.

Release Activity: Styrolution 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.17 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	8.28E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC OTVD 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:28                      RELEASE ACTIVITY: Styrolution 20 dy  
 FACILITY NAME: BASF - JOLIET  
 FACILITY LOCATION: CHANNAHON IL 60410  
 RECEIVING WATER NAME: DES PLAINS R  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 07120004002                                  Yes  
 NPDES PERMIT #: IL0001619      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.00828	8.28E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	7537.30	4032.40	2877.81	2308.84	NA
CONCENTRATION (µg/L)	1.10E-03	2.05E-03	2.88E-03	3.59E-03	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	3.31E-10 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.55E-08 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	7.78E-08 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES
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SCENARIO NUMBER: 28                      RELEASE ACTIVITY: Styrolution 20 dy

FACILITY NAME: BASF - JOLIET

FACILITY LOCATION: CHANNAHON IL 60410

RECEIVING STREAM NAME: DES PLAINS R

REACH NUMBER: 07120004002      FACILITY ON REACH:      DISCHARGE TYPE:  
Yes                                      Direct

NPDES PERMIT NUMBER:              GAGING STATION ID: N/A  
IL0001619

GAGING STATION PERIOD OF      GAGING STATION              NUMBER OF  
RECORD: N/A                              NUMBER OF                      STATIONS ON REACH:  
OBSERVATIONS: N/A                      N/A

MEAN FLOW (MLD): 1.04E+04      7q10 FLOW (MLD):              EFFLUENT FLOW  
2877.81                                      (MLD):0.90

RESULTS					
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	20.00	8.28E-03	0.00
360.00	0	0	20.00	8.28E-03	0.00
1400.00	0	0	20.00	8.28E-03	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:29

Number of Release Sites: 1.

Release Activity: Trane 260 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.41E-03 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	1.31E-05 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 29                      Number of Sites: 1                      RELEASE ACTIVITY:Trane 260 dy

SIC-CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

SIC-CODE (S): 3315-3317,3351-3357,3463,3497                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	260.	0.00001	1.31E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	485.40	206.33	132.62	108.72	2.70E-05	6.35E-05	9.88E-05	1.20E-04
ALL	10	43.45	15.35	9.00	7.91	3.01E-04	8.53E-04	1.46E-03	1.66E-03

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.06E-10	1.18E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	8.13E-09	9.09E-08	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.40E-09	3.23E-08	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 29

RELEASE ACTIVITY: Trane 260 dy

SIC CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

ASSOCIATED SIC CODES: 3315-3317,3351-3357,3463,3497

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	260.00	1.30E-05	0.00	High
360.00	0	0	260.00	1.30E-05	0.00	High
1400.00	0	0	260.00	1.30E-05	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:30

Number of Release Sites: 1.

Release Activity: Trane 20 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	3.42E-03	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.71E-04	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 30                      Number of Sites: 1                      RELEASE ACTIVITY:Trane 20 dy

SIC-CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

SIC-CODE (S): 3315-3317,3351-3357,3463,3497                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.00017	1.71E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	485.40	206.33	132.62	108.72	3.52E-04	8.29E-04	1.29E-03	1.57E-03
ALL	10	43.45	15.35	9.00	7.91	3.94E-03	1.11E-02	1.90E-02	2.16E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.06E-10	1.19E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	8.17E-09	9.12E-08	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	3.14E-08	4.22E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 30                      RELEASE ACTIVITY: Trane 20 dy

SIC CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

ASSOCIATED SIC CODES: 3315-3317,3351-3357,3463,3497

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	1.71E-04	0.00	High
360.00	0	0	20.00	1.71E-04	0.00	High
1400.00	0	0	20.00	1.71E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:31

Number of Release Sites: 1.

Release Activity: US Steel 260 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.26 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	1.01E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC OTVD 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:31                      RELEASE ACTIVITY: US Steel 260 dy  
 FACILITY NAME: US STEEL GROUP-USX CORP  
 FACILITY LOCATION: FAIRLESS HILLS PA 19030  
 RECEIVING WATER NAME: DELAWARE R  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 02040201004                                  No  
 NPDES PERMIT #: PA0013463      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	260.	0.00101	1.01E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	1.95E+04	8214.97	6011.49	4798.16	NA
CONCENTRATION (µg/L)	5.19E-05	1.23E-04	1.68E-04	2.10E-04	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.03E-10 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.56E-08 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	4.66E-09 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



**INITIAL REVIEW EXPOSURE REPORT**

Chemical ID: PERC OTVD 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER: 31                      RELEASE ACTIVITY: US Steel 260 dy

FACILITY NAME: US STEEL GROUP-USX CORP

FACILITY LOCATION: FAIRLESS HILLS PA 19030

RECEIVING STREAM NAME: DELAWARE R

REACH NUMBER: 02040201004      FACILITY ON REACH:      DISCHARGE TYPE:  
    No     Direct

NPDES PERMIT NUMBER:              GAGING STATION ID: N/A  
 PA0013463

GAGING STATION PERIOD OF      GAGING STATION                      NUMBER OF  
 RECORD: N/A                                      NUMBER OF                                      STATIONS ON REACH:  
    OBSERVATIONS: N/A                                      N/A

MEAN FLOW (MLD): 3.28E+04      7q10 FLOW (MLD):                      EFFLUENT FLOW  
    6011.49     (MLD):120.94

<b>RESULTS</b>					
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COC ( $\mu\text{g}/\text{L}$ )	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	260.00	1.01E-03	0.00
360.00	0	0	260.00	1.01E-03	0.00
1400.00	0	0	260.00	1.01E-03	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:32

Number of Release Sites: 1.

Release Activity: US Steel 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.26 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.32E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC OTVD 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:32                      RELEASE ACTIVITY: US Steel 20 dy  
 FACILITY NAME: US STEEL GROUP-USX CORP  
 FACILITY LOCATION: FAIRLESS HILLS PA 19030  
 RECEIVING WATER NAME: DELAWARE R  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 02040201004                                  No  
 NPDES PERMIT #: PA0013463      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.0132	1.32E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	1.95E+04	8214.97	6011.49	4798.16	NA
CONCENTRATION (µg/L)	6.78E-04	1.61E-03	2.20E-03	2.75E-03	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.04E-10 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.57E-08 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	6.09E-08 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:1

Number of Release Sites: 1.

Release Activity: Getzen 260 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	9.07E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	3.49E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE ACTIVITY: Getzen 260 dy

SIC-CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

SIC-CODE (S): 3315-3317,3351-3357,3463,3497                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	260.	0.00035	4.19E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	485.40	206.33	132.62	108.72	8.63E-05	2.03E-04	3.16E-04	3.85E-04
ALL	10	43.45	15.35	9.00	7.91	9.64E-04	2.73E-03	4.65E-03	5.29E-03

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	3.38E-10	3.78E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	2.60E-08	2.90E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	7.69E-09	1.03E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      RELEASE ACTIVITY: Getzen 260 dy

SIC CODE DESCRIPTION: Primary Metal Forming Manuf. (major users of metal working fluids)

ASSOCIATED SIC CODES: 3315-3317,3351-3357,3463,3497

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	260.00	3.49E-04	88.00	High
360.00	0	0	260.00	3.49E-04	88.00	High
1400.00	0	0	260.00	3.49E-04	88.00	High

**6. OES: OTVDS (NOT IN TRI/DMR)**

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD Other 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 1

Number of Release Sites: 1.

Release Activity: 4,819 sites 260 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	4.16	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	1.60E-02	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD Other 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE ACTIVITY: 4,819 sites 260 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	260.	0.016	1.92E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	3Q5	7Q10	1Q10	Harmonic Mean	3Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	6.67E-03	1.55E-02	2.46E-02	2.91E-02
ALL	10	39.60	13.29	7.76	7.57	4.85E-02	0.14	0.25	0.25

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.61E-08	1.90E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	2.01E-06	1.46E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	5.87E-07	5.47E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC OTVD Other 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1

RELEASE ACTIVITY: 4,819 sites 260 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	260.00	1.60E-02	88.00	High
360.00	0	0	260.00	1.60E-02	88.00	High
1400.00	0	0	260.00	1.60E-02	88.00	High

**7. OES: CLOSED-LOOP VAPOR DEGREASERS (NOT IN TRI/DMR)**

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Closed-Loop 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 1

Number of Release Sites: 1.

Release Activity: 25,423 sites 260 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	4.16	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	1.60E-02	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Closed-Loop 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE ACTIVITY: 25,423 sites 260 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	260.	0.016	1.92E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	3Q5	7Q10	1Q10	Harmonic Mean	3Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	6.67E-03	1.55E-02	2.46E-02	2.91E-02
ALL	10	39.60	13.29	7.76	7.57	4.85E-02	0.14	0.25	0.25

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.61E-08	1.90E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	2.01E-06	1.46E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	5.87E-07	5.47E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Closed-Loop 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1

RELEASE ACTIVITY: 25,423 sites 260 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	260.00	1.60E-02	88.00	High
360.00	0	0	260.00	1.60E-02	88.00	High
1400.00	0	0	260.00	1.60E-02	88.00	High

**8. OES: CONVEYORIZED DEGREASERS (NOT IN TRI/DMR)**

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Conv 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 1

Number of Release Sites: 1.

Release Activity: 445 sites 260 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	4.16	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	1.60E-02	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Conv 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE ACTIVITY:445 sites 260 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	260.	0.016	1.92E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	6.67E-03	1.55E-02	2.46E-02	2.91E-02
ALL	10	39.60	13.29	7.76	7.57	4.85E-02	0.14	0.25	0.25

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.61E-08	1.90E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	2.01E-06	1.46E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	5.87E-07	5.47E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Conv 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1

RELEASE ACTIVITY: 445 sites 260 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	260.00	1.60E-02	88.00	High
360.00	0	0	260.00	1.60E-02	88.00	High
1400.00	0	0	260.00	1.60E-02	88.00	High

**9. OES: WEB DEGREASERS (NOT IN TRI/DMR)**

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Web 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 1

Number of Release Sites: 1.

Release Activity: 445 sites 260 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	4.16	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	260.00	0.00/0.00	N/A	N/A
Per Site Release:	1.60E-02	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Web 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE ACTIVITY:445 sites 260 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	260.	0.016	1.92E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	6.67E-03	1.55E-02	2.46E-02	2.91E-02
ALL	10	39.60	13.29	7.76	7.57	4.85E-02	0.14	0.25	0.25

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.61E-08	1.90E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	2.01E-06	1.46E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	5.87E-07	5.47E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Web 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1

RELEASE ACTIVITY: 445 sites 260 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	260.00	1.60E-02	88.00	High
360.00	0	0	260.00	1.60E-02	88.00	High
1400.00	0	0	260.00	1.60E-02	88.00	High

**10. OES: DRY CLEANING (COMMERCIAL AND INDUSTRIAL)**

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 1

Number of Release Sites: 1.

Release Activity: Boise 289 dy high

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
		Non-sludge/Sludge		

Total Releases:	5.92E-02	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	289.00	0.00/0.00	N/A	N/A
Per Site Release:	2.05E-04	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE ACTIVITY: Boise 289 dy high

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	289.	0.00021	2.05E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	4.32E-04	1.16E-03	1.82E-03	2.22E-03
ALL	10	18.26	3.16	1.76	1.48	1.12E-02	6.49E-02	0.12	0.14

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.88E-09	4.89E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.45E-07	3.76E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.40E-08	2.46E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      RELEASE ACTIVITY: Boise 289 dy high

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	289.00	2.05E-04	0.00	High
360.00	0	0	289.00	2.05E-04	0.00	High
1400.00	0	0	289.00	2.05E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Boise 307 dy central

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	5.93E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	307.00	0.00/0.00	N/A	N/A
Per Site Release:	1.93E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2                                      Number of Sites: 1                                      RELEASE ACTIVITY:Boise 307 dy central

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	307.	0.00019	1.93E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	4.07E-04	1.09E-03	1.71E-03	2.09E-03
ALL	10	18.26	3.16	1.76	1.48	1.06E-02	6.11E-02	0.11	0.13

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.88E-09	4.89E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.45E-07	3.76E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.14E-08	2.31E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2                      RELEASE ACTIVITY: Boise 307 dy central

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	307.00	1.93E-04	0.00	High
360.00	0	0	307.00	1.93E-04	0.00	High
1400.00	0	0	307.00	1.93E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:3

Number of Release Sites: 1.

Release Activity: Boise 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	5.94E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	2.97E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 3                                      Number of Sites: 1                                      RELEASE ACTIVITY: Boise 20 dy

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.00297	2.97E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	6.26E-03	1.68E-02	2.63E-02	3.21E-02
ALL	10	18.26	3.16	1.76	1.48	0.16	0.94	1.69	2.01

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.89E-09	4.90E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.45E-07	3.77E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	6.38E-07	3.56E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 3                      RELEASE ACTIVITY: Boise 20 dy

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	2.97E-03	0.00	High
360.00	0	0	20.00	2.97E-03	0.00	High
1400.00	0	0	20.00	2.97E-03	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:4

Number of Release Sites: 1.

Release Activity: Unifirst 289 dy high

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.37E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	289.00	0.00/0.00	N/A	N/A
Per Site Release:	4.73E-05 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4                      Number of Sites: 1                      RELEASE ACTIVITY: Unifirst 289 dy high

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	289.	0.00005	4.73E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	9.97E-05	2.68E-04	4.19E-04	5.11E-04
ALL	10	18.26	3.16	1.76	1.48	2.59E-03	1.50E-02	2.69E-02	3.20E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	4.34E-10	1.13E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	3.34E-08	8.68E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.02E-08	5.67E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4                      RELEASE ACTIVITY: Unifirst 289 dy high

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	289.00	4.70E-05	0.00	High
360.00	0	0	289.00	4.70E-05	0.00	High
1400.00	0	0	289.00	4.70E-05	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:5

Number of Release Sites: 1.

Release Activity: Unifirst 307 dy central

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	1.37E-02	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	307.00	0.00/0.00	N/A	N/A
Per Site Release:	4.45E-05	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 5                      Number of Sites: 1                      RELEASE ACTIVITY: Unifirst 307 dy central

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	307.	0.00005	4.45E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	9.38E-05	2.52E-04	3.95E-04	4.81E-04
ALL	10	18.26	3.16	1.76	1.48	2.44E-03	1.41E-02	2.53E-02	3.01E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	4.34E-10	1.13E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	3.34E-08	8.67E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	9.55E-09	5.33E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 5                      RELEASE ACTIVITY: Unifirst 307 dy central

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	307.00	4.40E-05	0.00	High
360.00	0	0	307.00	4.40E-05	0.00	High
1400.00	0	0	307.00	4.40E-05	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:6

Number of Release Sites: 1.

Release Activity: Unifirst 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.37E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	6.84E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 6                                      Number of Sites: 1                                      RELEASE ACTIVITY: Unifirst 20 dy

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.00068	6.84E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	1.44E-03	3.88E-03	6.06E-03	7.39E-03
ALL	10	18.26	3.16	1.76	1.48	3.75E-02	0.22	0.39	0.46

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	4.35E-10	1.13E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	3.34E-08	8.68E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.47E-07	8.20E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 6                      RELEASE ACTIVITY: Unifirst 20 dy

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	6.84E-04	0.00	High
360.00	0	0	20.00	6.84E-04	0.00	High
1400.00	0	0	20.00	6.84E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:1

Number of Release Sites: 1.

Release Activity: Chase 289 dy high

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	2.80 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	289.00	0.00/0.00	N/A	N/A
Per Site Release:	9.70E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE ACTIVITY: Chase 289 dy high

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	289.	0.0097	9.70E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	2.05E-02	5.50E-02	8.60E-02	0.10
ALL	10	18.26	3.16	1.76	1.48	0.53	3.07	5.51	6.55

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	8.91E-08	2.31E-06	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	6.85E-06	1.78E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.08E-06	1.16E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      RELEASE ACTIVITY: Chase 289 dy high

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	289.00	9.70E-03	0.00	High
360.00	0	0	289.00	9.70E-03	0.00	High
1400.00	0	0	289.00	9.70E-03	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Chase 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	2.80 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.14 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2                                      Number of Sites: 1                                      RELEASE ACTIVITY: Chase 20 dy

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.14	0.14	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	0.30	0.79	1.24	1.51
ALL	10	18.26	3.16	1.76	1.48	7.67	44.30	79.55	94.59

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	8.90E-08	2.31E-06	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	6.84E-06	1.78E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	3.01E-05	1.68E-03	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2                      RELEASE ACTIVITY: Chase 20 dy

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	1	20.00	0.14	0.00	High
360.00	0	0	20.00	0.14	0.00	High
1400.00	0	0	20.00	0.14	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:3

Number of Release Sites: 1.

Release Activity: Chase 307 dy central

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	2.79 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	307.00	0.00/0.00	N/A	N/A
Per Site Release:	9.10E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 3                                      Number of Sites: 1                                      RELEASE ACTIVITY: Chase 307 dy central

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	307.	0.0091	9.10E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	1.92E-02	5.16E-02	8.07E-02	9.83E-02
ALL	10	18.26	3.16	1.76	1.48	0.50	2.88	5.17	6.15

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	8.88E-08	2.31E-06	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	6.83E-06	1.77E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.95E-06	1.09E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 3                      RELEASE ACTIVITY: Chase 307 dy central

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	307.00	9.10E-03	0.00	High
360.00	0	0	307.00	9.10E-03	0.00	High
1400.00	0	0	307.00	9.10E-03	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:4

Number of Release Sites: 1.

Release Activity: San Jacinto 289 dy high

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	3.18E-03	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	289.00	0.00/0.00	N/A	N/A
Per Site Release:	1.10E-05	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4                      Number of Sites: 1                      RELEASE ACTIVITY: San Jacinto 289 dy high

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	289.	0.00001	1.10E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	2.32E-05	6.24E-05	9.75E-05	1.19E-04
ALL	10	18.26	3.16	1.76	1.48	6.02E-04	3.48E-03	6.25E-03	7.43E-03

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.01E-10	2.62E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	7.77E-09	2.02E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.36E-09	1.32E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4                      RELEASE ACTIVITY: San Jacinto 289 dy high

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	289.00	1.10E-05	0.00	High
360.00	0	0	289.00	1.10E-05	0.00	High
1400.00	0	0	289.00	1.10E-05	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:5

Number of Release Sites: 1.

Release Activity: San Jacinto 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.10E-03 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.55E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 5                      Number of Sites: 1                      RELEASE ACTIVITY: San Jacinto 20 dy

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.00016	1.55E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	3.27E-04	8.79E-04	1.37E-03	1.67E-03
ALL	10	18.26	3.16	1.76	1.48	8.49E-03	4.91E-02	8.81E-02	0.10

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	9.85E-11	2.56E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	7.58E-09	1.97E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	3.33E-08	1.86E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 5                      RELEASE ACTIVITY: San Jacinto 20 dy

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	1.55E-04	0.00	High
360.00	0	0	20.00	1.55E-04	0.00	High
1400.00	0	0	20.00	1.55E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:6

Number of Release Sites: 1.

Release Activity: San Jacinto 307 dy central

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.07E-03 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	307.00	0.00/0.00	N/A	N/A
Per Site Release:	1.00E-05 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 6                                  Number of Sites: 1                                  RELEASE ACTIVITY: San Jacinto 307 dy central

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                                  EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	307.	0.00001	1.00E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	2.11E-05	5.67E-05	8.87E-05	1.08E-04
ALL	10	18.26	3.16	1.76	1.48	5.48E-04	3.16E-03	5.68E-03	6.76E-03

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	9.76E-11	2.53E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	7.50E-09	1.95E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.15E-09	1.20E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 6                      RELEASE ACTIVITY: San Jacinto 307 dy central

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	307.00	1.00E-05	0.00	High
360.00	0	0	307.00	1.00E-05	0.00	High
1400.00	0	0	307.00	1.00E-05	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:7

Number of Release Sites: 1.

Release Activity: The Martin 289 dy high

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.76E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	289.00	0.00/0.00	N/A	N/A
Per Site Release:	1.30E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 7                      Number of Sites: 1                      RELEASE ACTIVITY: The Martin 289 dy high

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	289.	0.00013	1.30E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	2.74E-04	7.37E-04	1.15E-03	1.40E-03
ALL	10	18.26	3.16	1.76	1.48	7.12E-03	4.11E-02	7.39E-02	8.78E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.19E-09	3.10E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	9.18E-08	2.38E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.79E-08	1.56E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 7                      RELEASE ACTIVITY: The Martin 289 dy high

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	289.00	1.30E-04	0.00	High
360.00	0	0	289.00	1.30E-04	0.00	High
1400.00	0	0	289.00	1.30E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:8

Number of Release Sites: 1.

Release Activity: The Martin 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.80E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.90E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 8                                      Number of Sites: 1                                      RELEASE ACTIVITY: The Martin 20 dy

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.0019	1.90E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	4.01E-03	1.08E-02	1.68E-02	2.05E-02
ALL	10	18.26	3.16	1.76	1.48	0.10	0.60	1.08	1.28

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.21E-09	3.14E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	9.29E-08	2.41E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.08E-07	2.28E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 8                      RELEASE ACTIVITY: The Martin 20 dy

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	1.90E-03	0.00	High
360.00	0	0	20.00	1.90E-03	0.00	High
1400.00	0	0	20.00	1.90E-03	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:9

Number of Release Sites: 1.

Release Activity: The Martin 307 dy central

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.68E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	307.00	0.00/0.00	N/A	N/A
Per Site Release:	1.20E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 9                                  Number of Sites: 1                                  RELEASE ACTIVITY: The Martin 307 dy central

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                                  EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	307.	0.00012	1.20E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	2.53E-04	6.80E-04	1.06E-03	1.30E-03
ALL	10	18.26	3.16	1.76	1.48	6.57E-03	3.80E-02	6.82E-02	8.11E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.17E-09	3.04E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	9.01E-08	2.34E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.58E-08	1.44E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 9                      RELEASE ACTIVITY: The Martin 307 dy central

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	307.00	1.20E-04	0.00	High
360.00	0	0	307.00	1.20E-04	0.00	High
1400.00	0	0	307.00	1.20E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:10

Number of Release Sites: 1.

Release Activity: The Stirling 289 dy high

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.20 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	289.00	0.00/0.00	N/A	N/A
Per Site Release:	6.90E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 10                      Number of Sites: 1                      RELEASE ACTIVITY: The Stirling 289 dy high

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	289.	0.00069	6.90E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	1.46E-03	3.91E-03	6.12E-03	7.46E-03
ALL	10	18.26	3.16	1.76	1.48	3.78E-02	0.22	0.39	0.47

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	6.34E-09	1.65E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.87E-07	1.27E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.48E-07	8.27E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 10                      RELEASE ACTIVITY: The Stirling 289 dy high

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	289.00	6.90E-04	0.00	High
360.00	0	0	289.00	6.90E-04	0.00	High
1400.00	0	0	289.00	6.90E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:11

Number of Release Sites: 1.

Release Activity: The Stirling 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.20 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.00E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 11                      Number of Sites: 1                      RELEASE ACTIVITY: The Stirling 20 dy

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.01	1.00E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	2.11E-02	5.67E-02	8.87E-02	0.11
ALL	10	18.26	3.16	1.76	1.48	0.55	3.16	5.68	6.76

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	6.36E-09	1.65E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.89E-07	1.27E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.15E-06	1.20E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 11                      RELEASE ACTIVITY: The Stirling 20 dy

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	1.00E-02	0.00	High
360.00	0	0	20.00	1.00E-02	0.00	High
1400.00	0	0	20.00	1.00E-02	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:12

Number of Release Sites: 1.

Release Activity: The Stirling 307 dy central

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.20 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	307.00	0.00/0.00	N/A	N/A
Per Site Release:	6.50E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 12                      Number of Sites: 1                      RELEASE ACTIVITY: The Stirling 307 dy central

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	307.	0.00065	6.50E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	1.37E-03	3.68E-03	5.76E-03	7.02E-03
ALL	10	18.26	3.16	1.76	1.48	3.56E-02	0.21	0.37	0.44

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	6.34E-09	1.65E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.88E-07	1.27E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.40E-07	7.79E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry Com 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 12                      RELEASE ACTIVITY: The Stirling 307 dy central

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	307.00	6.50E-04	0.00	High
360.00	0	0	307.00	6.50E-04	0.00	High
1400.00	0	0	307.00	6.50E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:1

Number of Release Sites: 1.

Release Activity: 12,822 sites 307 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.49 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	307.00	0.00/0.00	N/A	N/A
Per Site Release:	1.60E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE ACTIVITY:12,822 sites 307 dy

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	307.	0.0016	1.92E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	4.05E-04	1.09E-03	1.70E-03	2.07E-03
ALL	10	18.26	3.16	1.76	1.48	1.05E-02	6.08E-02	0.11	0.13

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.87E-09	4.86E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.44E-07	3.74E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.12E-08	2.30E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      RELEASE ACTIVITY: 12,822 sites 307 dy

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	307.00	1.60E-03	88.00	High
360.00	0	0	307.00	1.60E-03	88.00	High
1400.00	0	0	307.00	1.60E-03	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: 12,822 sites 289 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.16 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	289.00	0.00/0.00	N/A	N/A
Per Site Release:	5.55E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2                                      Number of Sites: 1                                      RELEASE ACTIVITY: 12,822 sites 289 dy

SIC-CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

SIC-CODE (S): 7211,7213-7219,7542                                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	289.	0.00056	6.66E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	474.19	176.41	112.78	92.55	1.40E-04	3.78E-04	5.91E-04	7.20E-04
ALL	10	18.26	3.16	1.76	1.48	3.65E-03	2.11E-02	3.78E-02	4.50E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	6.12E-10	1.59E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.70E-08	1.22E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.43E-08	7.98E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Dry 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2

RELEASE ACTIVITY: 12,822 sites 289 dy

SIC CODE DESCRIPTION: Laundries, Dry Cleaners and Car Washes

ASSOCIATED SIC CODES: 7211,7213-7219,7542

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	289.00	5.55E-04	88.00	High
360.00	0	0	289.00	5.55E-04	88.00	High
1400.00	0	0	289.00	5.55E-04	88.00	High

**11. OES: ADHESIVES, PAINTS, AND COATINGS**

**INITIAL REVIEW EXPOSURE REPORT**

Chemical ID: PERC Adhes 88

Assessor:

<b>ENVIRONMENTAL RELEASES</b>
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Scenario#: 1

Number of Release Sites: 1.

Release Activity: Roll 60 sites 250 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	450.00	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	1.80	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Adhes 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE ACTIVITY: Roll  
60 sites 250 dy

SIC-CODE DESCRIPTION: Adhesives and Sealants Manufacture

SIC-CODE (S): 2891                      EXPOSED POPULATION:  
Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	250.	1.8	0.22	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	3Q5	7Q10	1Q10	Harmonic Mean	3Q5	7Q10	1Q10
ALL	50	226.89	125.13	79.03	65.02	0.95	1.73	2.73	3.32
ALL	10	66.08	13.33	7.78	6.51	3.27	16.20	27.76	33.18

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	3.59E-06	1.23E-05	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	2.76E-04	9.47E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	6.54E-05	6.14E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Adhes 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      RELEASE ACTIVITY: Roll 60 sites 250 dy

SIC CODE DESCRIPTION: Adhesives and Sealants Manufacture

ASSOCIATED SIC CODES: 2891

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	1.80	88.00	High
360.00	0	0	250.00	1.80	88.00	High
1400.00	0	0	250.00	1.80	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Adhes 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Spray 60 sites 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	350.00 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	1.40 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Adhes 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2                                      Number of Sites: 1                                      RELEASE ACTIVITY: Spray 60 sites 250 dy

SIC-CODE DESCRIPTION: Adhesives and Sealants Manufacture

SIC-CODE (S): 2891                                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	250.	1.4	0.17	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	226.89	125.13	79.03	65.02	0.74	1.34	2.13	2.58
ALL	10	66.08	13.33	7.78	6.51	2.54	12.60	21.59	25.81

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.79E-06	9.58E-06	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	2.15E-04	7.37E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	5.09E-05	4.77E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Adhes 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2                      RELEASE ACTIVITY: Spray 60 sites 250 dy

SIC CODE DESCRIPTION: Adhesives and Sealants Manufacture

ASSOCIATED SIC CODES: 2891

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	1.40	88.00	High
360.00	0	0	250.00	1.40	88.00	High
1400.00	0	0	250.00	1.40	88.00	High

**12. OES: CHEMICAL MASKANT**

**INITIAL REVIEW EXPOSURE REPORT**

Chemical ID: PERC Chem 00

Assessor:

<b>ENVIRONMENTAL RELEASES</b>
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Scenario#: 1

Number of Release Sites: 1.

Release Activity: Alliant 172 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	9.98E-04	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	172.00	0.00/0.00	N/A	N/A
Per Site Release:	5.80E-06	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Chem 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:1                      RELEASE ACTIVITY: Alliant 172 dy  
 FACILITY NAME: THIOKOL CORPORATION  
 FACILITY LOCATION: ELKTON MD 21921  
 RECEIVING WATER NAME: LITTLE ELK CR  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 02060002051                      Yes  
 NPDES PERMIT #: MD0000078    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	172.	5.80e-06	5.80E-06	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	50.94	18.40	10.86	9.06	NA
CONCENTRATION (µg/L)	1.14E-04	3.15E-04	5.34E-04	6.40E-04	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.95E-10 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.27E-08 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.19E-08 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Chem 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Alliant 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.00E-03 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	5.00E-05 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Chem 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:2                      RELEASE ACTIVITY: Alliant 20 dy  
 FACILITY NAME: THIOKOL CORPORATION  
 FACILITY LOCATION: ELKTON MD 21921  
 RECEIVING WATER NAME: LITTLE ELK CR  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 02060002051                      Yes  
 NPDES PERMIT #: MD0000078 EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.00005	5.00E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	50.94	18.40	10.86	9.06	NA
CONCENTRATION (µg/L)	9.82E-04	2.72E-03	4.60E-03	5.52E-03	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.96E-10 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.28E-08 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.03E-07 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:





INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Chem 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:3

Number of Release Sites: 1.

Release Activity: GE 172 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.15 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	172.00	0.00/0.00	N/A	N/A
Per Site Release:	8.72E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC Chem 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 3	RELEASE ACTIVITY: GE 172 dy	
FACILITY NAME: GENERAL ELECTRIC AIRCRAFT ENG.		
FACILITY LOCATION: LYNN MA 01910		
RECEIVING WATER NAME: ATLANTIC OCEAN		
REACH NUMBER: 01090001013	FACILITY ON REACH: Yes	DISCHARGE TYPE: Direct
NPDES PERMIT #: MA0003905	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	172.	235.54	0.00087	8.72E-04	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	3.70E-03
CHRONIC SCENARIO	1.00	3.70E-03

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Chem 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:4

Number of Release Sites: 1.

Release Activity: GE 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.15 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	7.50E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC Chem 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 4	RELEASE ACTIVITY: GE 20 dy	
FACILITY NAME: GENERAL ELECTRIC AIRCRAFT ENG.		
FACILITY LOCATION: LYNN MA 01910		
RECEIVING WATER NAME: ATLANTIC OCEAN		
REACH NUMBER: 01090001013	FACILITY ON REACH: Yes	DISCHARGE TYPE: Direct
NPDES PERMIT #: MA0003905	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	20.	235.54	0.0075	7.50E-03	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	3.18E-02
CHRONIC SCENARIO	1.00	3.18E-02

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Chem 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:5

Number of Release Sites: 1.

Release Activity: McCanna 172 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	7.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	172.00	0.00/0.00	N/A	N/A
Per Site Release:	4.07E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Chem 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 5                      Number of Sites: 1                      RELEASE  
ACTIVITY:McCanna 172  
dy

SIC-CODE DESCRIPTION: Metal Finishing

SIC-CODE (S): 34xx - 39xx                      EXPOSED POPULATION:  
Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	172.	0.00041	4.07E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	300.46	107.45	67.50	55.59	1.35E-03	3.79E-03	6.03E-03	7.32E-03
ALL	10	23.74	4.69	2.64	2.27	1.71E-02	8.68E-02	0.15	0.18

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	3.51E-09	4.44E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	2.70E-07	3.42E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.43E-07	3.29E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Chem 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 5                      RELEASE ACTIVITY: McCanna 172 dy

SIC CODE DESCRIPTION: Metal Finishing

ASSOCIATED SIC CODES: 34xx - 39xx

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	172.00	4.07E-04	0.00	High
360.00	0	0	172.00	4.07E-04	0.00	High
1400.00	0	0	172.00	4.07E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Chem 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:6

Number of Release Sites: 1.

Release Activity: McCanna 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	7.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	3.50E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Chem 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 6                      Number of Sites: 1                      RELEASE ACTIVITY:McCanna 20 dy

SIC-CODE DESCRIPTION: Metal Finishing

SIC-CODE (S): 34xx - 39xx                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.0035	3.50E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	300.46	107.45	67.50	55.59	1.16E-02	3.26E-02	5.19E-02	6.30E-02
ALL	10	23.74	4.69	2.64	2.27	0.15	0.75	1.33	1.54

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	3.51E-09	4.44E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	2.70E-07	3.42E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.23E-06	2.83E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Chem 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 6                      RELEASE ACTIVITY: McCanna 20 dy

SIC CODE DESCRIPTION: Metal Finishing

ASSOCIATED SIC CODES: 34xx - 39xx

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	3.50E-03	0.00	High
360.00	0	0	20.00	3.50E-03	0.00	High
1400.00	0	0	20.00	3.50E-03	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Chem 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 1

Number of Release Sites: 1.

Release Activity: Ducommun 172 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.45 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	172.00	0.00/0.00	N/A	N/A
Per Site Release:	2.62E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Chem 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE ACTIVITY: Ducommun 172 dy

SIC-CODE DESCRIPTION: Metal Finishing

SIC-CODE (S): 34xx - 39xx                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	172.	0.00262	3.14E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	300.46	107.45	67.50	55.59	1.05E-03	2.93E-03	4.66E-03	5.66E-03
ALL	10	23.74	4.69	2.64	2.27	1.32E-02	6.70E-02	0.12	0.14

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.71E-09	3.43E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	2.09E-07	2.64E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.11E-07	2.54E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Chem 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      RELEASE ACTIVITY: Ducommun 172 dy

SIC CODE DESCRIPTION: Metal Finishing

ASSOCIATED SIC CODES: 34xx - 39xx

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	172.00	2.62E-03	88.00	High
360.00	0	0	172.00	2.62E-03	88.00	High
1400.00	0	0	172.00	2.62E-03	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Chem 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Weatherford 208 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	2.27 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	208.00	0.00/0.00	N/A	N/A
Per Site Release:	1.09E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Chem 88

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER  
RELEASES

SCENARIO NUMBER:2                      RELEASE ACTIVITY: Weatherford 208 dy  
 FACILITY NAME: WEATHERFORD CITY OF  
 FACILITY LOCATION: WEATHERFORD TX 76086  
 RECEIVING WATER NAME: WILLOW CR  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 12030102032                      No  
 NPDES PERMIT #: TX0047724      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.	208.	0.0109	1.31E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	18.09	10.59	6.13	6.13	NA
CONCENTRATION (µg/L)	7.23E-02	0.12	0.21	0.21	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.27E-07 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.74E-05 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	4.68E-06 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



**13. OES: INDUSTRIAL PROCESSING AID**

**INITIAL REVIEW EXPOSURE REPORT**

Chemical ID: PERC Ind Proc 00

Assessor:

<b>ENVIRONMENTAL RELEASES</b>
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Scenario#: 1

Number of Release Sites: 1.

Release Activity: Chevron UT 300 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.74 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	5.80E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:



INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Ind Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:1                      RELEASE ACTIVITY: Chevron UT 300 dy  
 FACILITY NAME: CHEVRON U.S.A. INC  
 FACILITY LOCATION: SALT LAKE CITY UT 84125  
 RECEIVING WATER NAME: JORDAN R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 16020204001                              No  
 NPDES PERMIT #: UT0000175      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	300.	0.0058	5.80E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	127.51	52.86	32.39	26.82	NA
CONCENTRATION (µg/L)	4.55E-02	0.11	0.18	0.22	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.06E-07 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.58E-05 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	4.16E-06 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Chevron UT 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.74 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	8.70E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Ind Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:2                      RELEASE ACTIVITY: Chevron UT 20 dy  
 FACILITY NAME: CHEVRON U.S.A. INC  
 FACILITY LOCATION: SALT LAKE CITY UT 84125  
 RECEIVING WATER NAME: JORDAN R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 16020204001                              No  
 NPDES PERMIT #: UT0000175      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.087	8.70E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	127.51	52.86	32.39	26.82	NA
CONCENTRATION (µg/L)	0.68	1.65	2.69	3.24	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.06E-07 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.58E-05 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	6.23E-05 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:3

Number of Release Sites: 1.

Release Activity: Chevron CA 300 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.91 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	3.03E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:



INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC Ind Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 3	RELEASE ACTIVITY: Chevron CA 300 dy	
FACILITY NAME: CHEVRON PRODUCTS COMPANY		
FACILITY LOCATION: RICHMOND CA 94802		
RECEIVING WATER NAME: SAN PABLO BAY		
REACH NUMBER: 18050002002	FACILITY ON REACH: No	DISCHARGE TYPE: Direct
NPDES PERMIT #: CA0005134	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	300.	17.21	0.00303	3.03E-03	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	0.18
CHRONIC SCENARIO	10.00	1.76E-02

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:4

Number of Release Sites: 1.

Release Activity: Chevron CA 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.91 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	4.55E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC Ind Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 4	RELEASE ACTIVITY: Chevron CA 20 dy	
FACILITY NAME: CHEVRON PRODUCTS COMPANY		
FACILITY LOCATION: RICHMOND CA 94802		
RECEIVING WATER NAME: SAN PABLO BAY		
REACH NUMBER: 18050002002	FACILITY ON REACH: No	DISCHARGE TYPE: Direct
NPDES PERMIT #: CA0005134	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	20.	17.21	0.0455	4.55E-02	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	2.64
CHRONIC SCENARIO	10.00	0.26

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:5

Number of Release Sites: 1.

Release Activity: CHS 300 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	9.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	3.00E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Ind Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:5                      RELEASE ACTIVITY: CHS 300 dy  
 FACILITY NAME: NATIONAL COOPERATIVE REFINERY  
 FACILITY LOCATION: KS  
 RECEIVING WATER NAME: SUN CR  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 11030012013                              No  
 NPDES PERMIT #: KS0000337      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	300.	0.0003	3.00E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	18.48	11.72	6.81	6.81	NA
CONCENTRATION (µg/L)	1.62E-02	2.56E-02	4.41E-02	4.41E-02	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	7.34E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	5.64E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	9.69E-07 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER  
RELEASES

SCENARIO NUMBER: 5                      RELEASE ACTIVITY: CHS 300 dy

FACILITY NAME: NATIONAL COOPERATIVE REFINERY

FACILITY LOCATION: KS

RECEIVING STREAM NAME: SUN CR

REACH NUMBER: 11030012013      FACILITY ON REACH:      DISCHARGE TYPE:  
No    Direct

NPDES PERMIT NUMBER:              GAGING STATION ID: N/A  
KS0000337

GAGING STATION PERIOD OF      GAGING STATION              NUMBER OF  
RECORD: N/A                              NUMBER OF                      STATIONS ON REACH:  
OBSERVATIONS: N/A                      N/A

MEAN FLOW (MLD): 36.60              7q10 FLOW (MLD): 6.81      EFFLUENT FLOW  
(MLD):6.81

RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	300.00	3.00E-04	0.00
360.00	0	0	300.00	3.00E-04	0.00
1400.00	0	0	300.00	3.00E-04	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:6

Number of Release Sites: 1.

Release Activity: CHS 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	9.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	4.50E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Ind Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER: 6                      RELEASE ACTIVITY: CHS 20 dy  
 FACILITY NAME: NATIONAL COOPERATIVE REFINERY  
 FACILITY LOCATION: KS  
 RECEIVING WATER NAME: SUN CR  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 11030012013                              No  
 NPDES PERMIT #: KS0000337      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.0045	4.50E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	18.48	11.72	6.81	6.81	NA
CONCENTRATION (µg/L)	0.24	0.38	0.66	0.66	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	7.34E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	5.64E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.45E-05 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
------------------------

Scenario#:7

Number of Release Sites: 1.

Release Activity: ExxonMobil 300 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
Total Releases:	7.26 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)

Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	2.42E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Ind Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER:7                      RELEASE ACTIVITY: ExxonMobil 300 dy  
 FACILITY NAME: EXXONMOBIL OIL CORPORATION  
 FACILITY LOCATION: BEAUMONT TX 77704  
 RECEIVING WATER NAME: WILLOW MARSH BAYOU  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 12040201017                      No  
 NPDES PERMIT #: TX0068934      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	300.	0.0242	2.42E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	38.26	6.35	3.61	3.61	NA
CONCENTRATION (µg/L)	0.63	3.81	6.70	6.70	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.86E-06 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.20E-04 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.44E-04 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:





INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:8

Number of Release Sites: 1.

Release Activity: ExxonMobil 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	7.26 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.36 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Ind Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:8                      RELEASE ACTIVITY: ExxonMobil 20 dy  
 FACILITY NAME: EXXONMOBIL OIL CORPORATION  
 FACILITY LOCATION: BEAUMONT TX 77704  
 RECEIVING WATER NAME: WILLOW MARSH BAYOU  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 12040201017                              No  
 NPDES PERMIT #: TX0068934      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.363	0.36	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	38.26	6.35	3.61	3.61	NA
CONCENTRATION (µg/L)	9.49	57.18	100.55	100.55	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.86E-06 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.20E-04 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	2.17E-03 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:9

Number of Release Sites: 1.

Release Activity: HollyFrontier 300 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.91 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	3.03E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Ind Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:9                      RELEASE ACTIVITY: HollyFrontier 300 dy  
 FACILITY NAME: FRONTIER REFINING COMPANY  
 FACILITY LOCATION: EL DORADO KS 67042  
 RECEIVING WATER NAME: WALNUT R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 11030017002                              Yes  
 NPDES PERMIT #: KS0000761      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	300.	0.00303	3.03E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	53.11	8.81	5.07	5.07	NA
CONCENTRATION (µg/L)	5.71E-02	0.34	0.60	0.60	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.58E-07 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.98E-05 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.30E-05 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:





INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:10

Number of Release Sites: 1.

Release Activity: HollyFrontier 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.91 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	4.55E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Ind Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:10                      RELEASE ACTIVITY: HollyFrontier 20 dy  
 FACILITY NAME: FRONTIER REFINING COMPANY  
 FACILITY LOCATION: EL DORADO KS 67042  
 RECEIVING WATER NAME: WALNUT R  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 11030017002                                  Yes  
 NPDES PERMIT #: KS0000761      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.0455	4.55E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	53.11	8.81	5.07	5.07	NA
CONCENTRATION (µg/L)	0.86	5.16	8.97	8.97	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.58E-07 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.99E-05 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.96E-04 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:11

Number of Release Sites: 1.

Release Activity: Hunt 300 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	4.02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	1.34E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Ind Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:11                      RELEASE ACTIVITY: Hunt 300 dy  
 FACILITY NAME: HUNT REFINING COMPANY    TUSCA  
 FACILITY LOCATION: TUSCALOOSA AL 35401  
 RECEIVING WATER NAME: BLACK WARRIOR R  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 03160112001                                  Yes  
 NPDES PERMIT #: AL0000973    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	300.	0.0134	1.34E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	2884.13	456.49	301.74	245.94	NA
CONCENTRATION (µg/L)	4.65E-03	2.94E-02	4.44E-02	5.45E-02	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.10E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.62E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.11E-06 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:





INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:12

Number of Release Sites: 1.

Release Activity: Hunt 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	4.00 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.20 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

**INITIAL EXPOSURE REVIEW REPORT**

Chemical ID: PERC Ind Proc 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER:12                      RELEASE ACTIVITY: Hunt 20 dy

FACILITY NAME: HUNT REFINING COMPANY    TUSCA

FACILITY LOCATION: TUSCALOOSA AL 35401

RECEIVING WATER NAME: BLACK WARRIOR R

REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
03160112001                                      Yes

NPDES PERMIT #: AL0000973    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.2	0.20	0.00	0.00

<b>AQUATIC EXPOSURE ESTIMATES - SURFACE WATER</b>					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	2884.13	456.49	301.74	245.94	NA
CONCENTRATION (µg/L)	6.93E-02	0.44	0.66	0.81	NA

<b>DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES</b>				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.09E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.61E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.66E-05 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:13

Number of Release Sites: 1.

Release Activity: Marathon 300 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	2.72 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	9.07E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC Ind Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 13	RELEASE ACTIVITY: Marathon 300 dy	
FACILITY NAME: MARATHON ASHLAND PETROLEUM-		
FACILITY LOCATION: GARYVILLE LA 70051		
RECEIVING WATER NAME: L MAUREPAS		
REACH NUMBER: 08070204018	FACILITY ON REACH: No	DISCHARGE TYPE: Direct
NPDES PERMIT #: LA0045683	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	300.	21.15	0.00907	9.07E-03	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	0.43
CHRONIC SCENARIO	1.00	0.43

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 14

Number of Release Sites: 1.

Release Activity: Marathon 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	2.80 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.14 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC Ind Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 14	RELEASE ACTIVITY: Marathon 20 dy	
FACILITY NAME: MARATHON ASHLAND PETROLEUM-		
FACILITY LOCATION: GARYVILLE LA 70051		
RECEIVING WATER NAME: L MAUREPAS		
REACH NUMBER: 08070204018	FACILITY ON REACH: No	DISCHARGE TYPE: Direct
NPDES PERMIT #: LA0045683	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	20.	21.15	0.14	0.14	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	6.62
CHRONIC SCENARIO	1.00	6.62

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:15

Number of Release Sites: 1.

Release Activity: Occidental 300 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	51.00 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	0.17 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

**INITIAL REVIEW EXPOSURE REPORT**

CHEMICAL ID: PERC Ind Proc 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:</b>		
<b>LAKES, BAYS, ESTUARIES, AND OCEANS</b>		
SCENARIO #: 15	RELEASE ACTIVITY: Occidental 300 dy	
FACILITY NAME: OCCIDENTAL CHEMICAL CORP		
FACILITY LOCATION: NIAGARA FALLS NY 14302		
RECEIVING WATER NAME: NIAGARA R		
REACH NUMBER: 04120104003	FACILITY ON REACH: Yes	DISCHARGE TYPE: Direct
NPDES PERMIT #: NY0003336	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST-TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	300.	131.81	0.17	0.17	0.00

<b>AQUATIC EXPOSURE ESTIMATES</b>		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	1.29
CHRONIC SCENARIO	1.00	1.29

<b>FISH INGESTION EXPOSURE ESTIMATES</b>
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 16

Number of Release Sites: 1.

Release Activity: Occidental 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	52.20	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	2.61	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC Ind Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 16	RELEASE ACTIVITY: Occidental 20 dy	
FACILITY NAME: OCCIDENTAL CHEMICAL CORP		
FACILITY LOCATION: NIAGARA FALLS NY 14302		
RECEIVING WATER NAME: NIAGARA R		
REACH NUMBER: 04120104003	FACILITY ON REACH: Yes	DISCHARGE TYPE: Direct
NPDES PERMIT #: NY0003336	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	20.	131.81	2.61	2.61	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	19.80
CHRONIC SCENARIO	1.00	19.80

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:17

Number of Release Sites: 1.

Release Activity: Tesoro 300 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	8.61 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	2.87E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 17                      Number of Sites: 1                      RELEASE ACTIVITY: Tesoro 300 dy

SIC-CODE DESCRIPTION: Petroleum Refining

SIC-CODE (S): 2911                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	300.	0.0287	2.87E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	663.21	226.24	145.89	119.52	4.33E-02	0.13	0.20	0.24
ALL	10	20.94	4.48	2.52	2.22	1.37	6.41	11.39	12.93

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.96E-07	6.20E-06	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.50E-05	4.77E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.80E-06	2.43E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 17                      RELEASE ACTIVITY: Tesoro 300 dy

SIC CODE DESCRIPTION: Petroleum Refining

ASSOCIATED SIC CODES: 2911

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	4	16	300.00	2.87E-02	0.00	High
360.00	1	2	300.00	2.87E-02	0.00	High
1400.00	0	0	300.00	2.87E-02	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:18

Number of Release Sites: 1.

Release Activity: Tesoro 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	8.60 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.43 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 18                      Number of Sites: 1                      RELEASE ACTIVITY: Tesoro 20 dy

SIC-CODE DESCRIPTION: Petroleum Refining

SIC-CODE (S): 2911                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.43	0.43	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	663.21	226.24	145.89	119.52	0.65	1.90	2.95	3.60
ALL	10	20.94	4.48	2.52	2.22	20.53	95.98	170.63	193.69

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.95E-07	6.19E-06	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.50E-05	4.76E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	7.20E-05	3.64E-03	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 18                      RELEASE ACTIVITY: Tesoro 20 dy

SIC CODE DESCRIPTION: Petroleum Refining

ASSOCIATED SIC CODES: 2911

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	2	7	20.00	0.43	0.00	High
360.00	1	2	20.00	0.43	0.00	High
1400.00	0	1	20.00	0.43	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:19

Number of Release Sites: 1.

Release Activity: Dow 300 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	10.44 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	3.48E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

**INITIAL EXPOSURE REVIEW REPORT**

Chemical ID: PERC Ind Proc 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER:19                      RELEASE ACTIVITY: Dow 300 dy

FACILITY NAME: DOW CHEM-MIDLAND

FACILITY LOCATION: MIDLAND MI 48667

RECEIVING WATER NAME: TITTABABASSEE R

REACH NUMBER:                              FACILITY ON REACH:      DISCHARGE TYPE: Direct  
 04080201001                                      Yes

NPDES PERMIT #: MI0000868      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	300.	0.0348	3.48E-02	0.00	0.00

<b>AQUATIC EXPOSURE ESTIMATES - SURFACE WATER</b>					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	2148.97	931.59	631.43	512.00	NA
CONCENTRATION (µg/L)	1.62E-02	3.74E-02	5.51E-02	6.80E-02	NA

<b>DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES</b>				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	7.32E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	5.63E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.41E-06 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:20

Number of Release Sites: 1.

Release Activity: Dow 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	10.40 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.52 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

**INITIAL EXPOSURE REVIEW REPORT**

Chemical ID: PERC Ind Proc 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER: 20                      RELEASE ACTIVITY: Dow 20 dy

FACILITY NAME: DOW CHEM-MIDLAND

FACILITY LOCATION: MIDLAND MI 48667

RECEIVING WATER NAME: TITTABABASSEE R

REACH NUMBER: 04080201001                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
Yes

NPDES PERMIT #: MI0000868                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.52	0.52	0.00	0.00

<b>AQUATIC EXPOSURE ESTIMATES - SURFACE WATER</b>					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	2148.97	931.59	631.43	512.00	NA
CONCENTRATION (µg/L)	0.24	0.56	0.82	1.02	NA

<b>DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES</b>				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	7.29E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	5.61E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	2.11E-05 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 20 RELEASE ACTIVITY: Dow 20 dy
FACILITY NAME: DOW CHEM-MIDLAND
FACILITY LOCATION: MIDLAND MI 48667
RECEIVING STREAM NAME: TITTABABASSEE R
REACH NUMBER: 04080201001 FACILITY ON REACH: Yes DISCHARGE TYPE: Direct
NPDES PERMIT NUMBER: MI0000868 GAGING STATION ID: N/A
GAGING STATION PERIOD OF RECORD: N/A GAGING STATION NUMBER OF OBSERVATIONS: N/A NUMBER OF STATIONS ON REACH: N/A
MEAN FLOW (MLD): 4310.95 7q10 FLOW (MLD): 631.43 EFFLUENT FLOW (MLD):60.26

Table with 6 columns: COC (µg/L), Percent of Year COC Exceeded, Number of Days COC Exceeded, Release days/year, Pre-treatment Loading (kg/site/day), Waste Water Treatment (%). Rows show data for COC levels 50.00, 360.00, and 1400.00.

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:21

Number of Release Sites: 1.

Release Activity: Valero OK 300 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	2.27 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	7.57E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Ind Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER:21                      RELEASE ACTIVITY: Valero OK 300 dy  
 FACILITY NAME: TPI PETROLEUM - ARDMORE REFINE  
 FACILITY LOCATION: ARDMORE OK 734021088  
 RECEIVING WATER NAME: CADDO CR  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 11130303042                                  No  
 NPDES PERMIT #: OK0001295    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	300.	0.00757	7.57E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	94.79	25.89	15.47	15.47	NA
CONCENTRATION (µg/L)	7.99E-02	0.29	0.49	0.49	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	3.61E-07 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.78E-05 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.11E-05 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER  
RELEASES

SCENARIO NUMBER: 21                      RELEASE ACTIVITY: Valero OK 300 dy

FACILITY NAME: TPI PETROLEUM - ARDMORE REFINE

FACILITY LOCATION: ARDMORE OK 734021088

RECEIVING STREAM NAME: CADDO CR

REACH NUMBER: 11130303042      FACILITY ON REACH:      DISCHARGE TYPE:  
No    Direct

NPDES PERMIT NUMBER:              GAGING STATION ID: N/A  
OK0001295

GAGING STATION PERIOD OF      GAGING STATION              NUMBER OF  
RECORD: N/A                              NUMBER OF                      STATIONS ON REACH:  
OBSERVATIONS: N/A                      N/A

MEAN FLOW (MLD): 445.37      7q10 FLOW (MLD): 15.47      EFFLUENT FLOW  
(MLD):15.47

RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	300.00	7.57E-03	0.00
360.00	0	0	300.00	7.57E-03	0.00
1400.00	0	0	300.00	7.57E-03	0.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:22

Number of Release Sites: 1.

Release Activity: Valero OK 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	2.28 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.11 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Ind Proc 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:22                      RELEASE ACTIVITY: Valero OK 20 dy  
 FACILITY NAME: TPI PETROLEUM - ARDMORE REFINE  
 FACILITY LOCATION: ARDMORE OK 734021088  
 RECEIVING WATER NAME: CADDO CR  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 11130303042                                  No  
 NPDES PERMIT #: OK0001295    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.114	0.11	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	94.79	25.89	15.47	15.47	NA
CONCENTRATION (µg/L)	1.20	4.40	7.37	7.37	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	3.62E-07 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.79E-05 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.67E-04 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:





INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:23

Number of Release Sites: 1.

Release Activity: Valero TX 300 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	2.73 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	9.10E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 23                      Number of Sites: 1                      RELEASE ACTIVITY: Valero TX 300 dy

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	300.	0.0091	9.10E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	3Q5	7Q10	1Q10	Harmonic Mean	3Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	3.22E-03	9.73E-03	1.43E-02	1.77E-02
ALL	10	50.57	9.38	5.41	4.53	0.18	0.97	1.68	2.01

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.46E-08	8.13E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.12E-06	6.26E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	3.68E-07	3.67E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

### SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 23

RELEASE ACTIVITY: Valero TX 300 dy

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

### SIC CODE RESULTS

COC ( $\mu\text{g/L}$ )	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	1	300.00	9.10E-03	0.00	High
360.00	0	0	300.00	9.10E-03	0.00	High
1400.00	0	0	300.00	9.10E-03	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:24

Number of Release Sites: 1.

Release Activity: Valero TX 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	2.80	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.14	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 24                      Number of Sites: 1                      RELEASE ACTIVITY: Valero TX 20 dy

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.14	0.14	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	3Q5	7Q10	1Q10	Harmonic Mean	3Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	4.95E-02	0.15	0.22	0.27
ALL	10	50.57	9.38	5.41	4.53	2.77	14.93	25.88	30.91

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.49E-08	8.34E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.15E-06	6.42E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	5.67E-06	5.65E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 24                      RELEASE ACTIVITY: Valero TX 20 dy

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	2	20.00	0.14	0.00	High
360.00	0	0	20.00	0.14	0.00	High
1400.00	0	0	20.00	0.14	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:1

Number of Release Sites: 1.

Release Activity: Occidental 300 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	51.00 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	0.17 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE ACTIVITY: Occidental 300 dy

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	300.	0.17	2.04E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	7.22E-03	2.18E-02	3.22E-02	3.97E-02
ALL	10	50.57	9.38	5.41	4.53	0.40	2.17	3.77	4.50

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	3.26E-08	1.82E-06	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	2.51E-06	1.40E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	8.26E-07	8.24E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      RELEASE ACTIVITY: Occidental 300 dy

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	2	6	300.00	0.17	88.00	High
360.00	0	0	300.00	0.17	88.00	High
1400.00	0	0	300.00	0.17	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Ind Proc 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Tesoro 300 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	8.61 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	300.00	0.00/0.00	N/A	N/A
Per Site Release:	2.87E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC Ind Proc 88

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 2	RELEASE ACTIVITY: Tesoro 300 dy	
FACILITY NAME: LOS ANGELES COUNTY SAN DIST		
FACILITY LOCATION: CARSON CA 90745		
RECEIVING WATER NAME: PACIFIC OCEAN		
REACH NUMBER: 18070104003	FACILITY ON REACH: Yes	DISCHARGE TYPE: Direct
NPDES PERMIT #: CA0053813	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
88.	300.	1494.88	0.0287	3.44E-03	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	166.00	1.39E-05
CHRONIC SCENARIO	166.00	1.39E-05

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:



**14. OES: OTHER INDUSTRIAL USES**

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 1

Number of Release Sites: 1.

Release Activity: Eli 250 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	1362.50	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	5.45	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

**INITIAL EXPOSURE REVIEW REPORT**

Chemical ID: PERC Other Ind 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER:1                      RELEASE ACTIVITY: Eli 250 dy  
 FACILITY NAME: ELI LILLY KENTUCKY AVE. PLANT  
 FACILITY LOCATION: INDIANAPOLIS IN 46237  
 RECEIVING WATER NAME: WHITE R  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 05120201005                                  Yes  
 NPDES PERMIT #: IN0003310      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	250.	5.45	5.45	0.00	0.00

<b>AQUATIC EXPOSURE ESTIMATES - SURFACE WATER</b>					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	948.40	264.68	171.63	140.44	NA
CONCENTRATION (µg/L)	5.75	20.59	31.75	38.81	NA

<b>DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES</b>				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.16E-05 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.67E-03 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	7.80E-04 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Eli 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1363.60 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	68.18 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Other Ind 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:2                      RELEASE ACTIVITY: Eli 20 dy  
 FACILITY NAME: ELI LILLY KENTUCKY AVE. PLANT  
 FACILITY LOCATION: INDIANAPOLIS IN 46237  
 RECEIVING WATER NAME: WHITE R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 05120201005                      Yes  
 NPDES PERMIT #: IN0003310      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	68.18	68.18	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	948.40	264.68	171.63	140.44	NA
CONCENTRATION (µg/L)	71.89	257.59	397.25	485.47	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.17E-05 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.67E-03 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	9.76E-03 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:





INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:3

Number of Release Sites: 1.

Release Activity: ExxonMobil 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.18 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	4.72E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Other Ind 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:3                      RELEASE ACTIVITY: ExxonMobil 250 dy  
 FACILITY NAME: EXXONMOBIL OIL-JOLIET REFINERY  
 FACILITY LOCATION: JOLIET IL 60434  
 RECEIVING WATER NAME: DES PLAINS R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 07120004002                              Yes  
 NPDES PERMIT #: IL0002861      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	250.	0.00472	4.72E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	7537.30	4032.40	2877.81	2308.84	NA
CONCENTRATION (µg/L)	6.26E-04	1.17E-03	1.64E-03	2.04E-03	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.36E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.81E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	4.43E-08 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:4

Number of Release Sites: 1.

Release Activity: ExxonMobil 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.18 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	5.90E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Other Ind 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:4                      RELEASE ACTIVITY: ExxonMobil 20 dy  
 FACILITY NAME: EXXONMOBIL OIL-JOLIET REFINERY  
 FACILITY LOCATION: JOLIET IL 60434  
 RECEIVING WATER NAME: DES PLAINS R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 07120004002                      Yes  
 NPDES PERMIT #: IL0002861      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.059	5.90E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	7537.30	4032.40	2877.81	2308.84	NA
CONCENTRATION (µg/L)	7.83E-03	1.46E-02	2.05E-02	2.56E-02	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.36E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.81E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	5.54E-07 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:





INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:5

Number of Release Sites: 1.

Release Activity: Natrium 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	7.88 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	3.15E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Other Ind 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:5                      RELEASE ACTIVITY: Natrium 250 dy  
 FACILITY NAME: PPG INDUSTRIES INC.  
 FACILITY LOCATION: NEW MARTINSVILLE WV 26155  
 RECEIVING WATER NAME: OHIO R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 05030201051                      Yes  
 NPDES PERMIT #: WV0004359 EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	250.	0.0315	3.15E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	3.88E+04	1.13E+04	8396.41	6686.06	NA
CONCENTRATION (µg/L)	8.11E-04	2.78E-03	3.75E-03	4.71E-03	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	3.06E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.35E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.05E-07 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:6

Number of Release Sites: 1.

Release Activity: Natrium 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	7.80 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.39 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Other Ind 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER:6                      RELEASE ACTIVITY: Natrium 20 dy  
 FACILITY NAME: PPG INDUSTRIES INC.  
 FACILITY LOCATION: NEW MARTINSVILLE WV 26155  
 RECEIVING WATER NAME: OHIO R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 05030201051                      Yes  
 NPDES PERMIT #: WV0004359 EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.39	0.39	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	3.88E+04	1.13E+04	8396.41	6686.06	NA
CONCENTRATION (µg/L)	1.00E-02	3.44E-02	4.64E-02	5.83E-02	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	3.03E-09 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.33E-07 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.30E-06 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:





INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:7

Number of Release Sites: 1.

Release Activity: Oxy 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	77.50 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	0.31 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Other Ind 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:7                      RELEASE ACTIVITY: Oxy 250 dy  
 FACILITY NAME: OXY VINYLs LP  
 FACILITY LOCATION: DEER PARK TX 77536  
 RECEIVING WATER NAME: BUFFALO BAYOU  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 12040104015                              No  
 NPDES PERMIT #: TX0007412    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	250.	0.31	0.31	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	1170.86	467.49	309.27	309.27	NA
CONCENTRATION (µg/L)	0.26	0.66	1.00	1.00	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	9.97E-07 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	7.67E-05 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	2.51E-05 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:8

Number of Release Sites: 1.

Release Activity: Oxy 20 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	77.60	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	3.88	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

**INITIAL EXPOSURE REVIEW REPORT**

Chemical ID: PERC Other Ind 00

<b>SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO NUMBER:8                      RELEASE ACTIVITY: Oxy 20 dy

FACILITY NAME: OXY VINYLs LP

FACILITY LOCATION: DEER PARK TX 77536

RECEIVING WATER NAME: BUFFALO BAYOU

REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 12040104015                                  No

NPDES PERMIT #: TX0007412    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	3.88	3.88	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	1170.86	467.49	309.27	309.27	NA
CONCENTRATION (µg/L)	3.31	8.30	12.55	12.55	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	9.99E-07 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	7.68E-05 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	3.14E-04 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:





INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:9

Number of Release Sites: 1.

Release Activity: Princeton 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.13 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	5.30E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 9                                      Number of Sites: 1                                      RELEASE ACTIVITY: Princeton 250 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	250.	0.00053	5.30E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	1.84E-03	4.28E-03	6.78E-03	8.02E-03
ALL	10	39.60	13.29	7.76	7.57	1.34E-02	3.99E-02	6.83E-02	7.00E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	6.93E-09	5.04E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	5.33E-07	3.88E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.62E-07	1.51E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 9

RELEASE ACTIVITY: Princeton 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	5.30E-04	0.00	High
360.00	0	0	250.00	5.30E-04	0.00	High
1400.00	0	0	250.00	5.30E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:10

Number of Release Sites: 1.

Release Activity: Princeton 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.13 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	6.63E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 10                      Number of Sites: 1                      RELEASE ACTIVITY: Princeton 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.00663	6.63E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	2.30E-02	5.35E-02	8.48E-02	0.10
ALL	10	39.60	13.29	7.76	7.57	0.17	0.50	0.85	0.88

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	6.94E-09	5.05E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	5.34E-07	3.88E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.03E-06	1.89E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

### SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 10

RELEASE ACTIVITY: Princeton 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

### SIC CODE RESULTS

COC ( $\mu\text{g/L}$ )	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	6.63E-03	0.00	High
360.00	0	0	20.00	6.63E-03	0.00	High
1400.00	0	0	20.00	6.63E-03	0.00	High



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:11

Number of Release Sites: 1.

Release Activity: Tree Top 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	7.60E-03 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	3.04E-05 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 11                      Number of Sites: 1                      RELEASE ACTIVITY: Tree Top 250 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	250.	0.00003	3.04E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	1.06E-04	2.45E-04	3.89E-04	4.60E-04
ALL	10	39.60	13.29	7.76	7.57	7.68E-04	2.29E-03	3.92E-03	4.02E-03

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	3.98E-10	2.89E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	3.06E-08	2.22E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	9.30E-09	8.66E-08	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 11

RELEASE ACTIVITY: Tree Top 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	3.00E-05	0.00	High
360.00	0	0	250.00	3.00E-05	0.00	High
1400.00	0	0	250.00	3.00E-05	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:12

Number of Release Sites: 1.

Release Activity: Tree Top 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	7.60E-03 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	3.80E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 12                      Number of Sites: 1                      RELEASE ACTIVITY: Tree Top 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.00038	3.80E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	1.32E-03	3.07E-03	4.86E-03	5.75E-03
ALL	10	39.60	13.29	7.76	7.57	9.60E-03	2.86E-02	4.90E-02	5.02E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	3.98E-10	2.89E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	3.06E-08	2.22E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.16E-07	1.08E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 12

RELEASE ACTIVITY: Tree Top 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	3.80E-04	0.00	High
360.00	0	0	20.00	3.80E-04	0.00	High
1400.00	0	0	20.00	3.80E-04	0.00	High



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:13

Number of Release Sites: 1.

Release Activity: Vesuvius 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.08E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	1.23E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 13                      Number of Sites: 1                      RELEASE ACTIVITY: Vesuvius 250 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	250.	0.00012	1.23E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	4.27E-04	9.93E-04	1.57E-03	1.86E-03
ALL	10	39.60	13.29	7.76	7.57	3.11E-03	9.26E-03	1.59E-02	1.62E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.61E-09	1.17E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.24E-07	9.00E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	3.76E-08	3.51E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 13

RELEASE ACTIVITY: Vesuvius 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	1.23E-04	0.00	High
360.00	0	0	250.00	1.23E-04	0.00	High
1400.00	0	0	250.00	1.23E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 14

Number of Release Sites: 1.

Release Activity: Vesuvius 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.08E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.54E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 14                      Number of Sites: 1                      RELEASE ACTIVITY: Vesuvius 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.00154	1.54E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	5.35E-03	1.24E-02	1.97E-02	2.33E-02
ALL	10	39.60	13.29	7.76	7.57	3.89E-02	0.12	0.20	0.20

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.61E-09	1.17E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.24E-07	9.02E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.71E-07	4.39E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 14

RELEASE ACTIVITY: Vesuvius 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	1.54E-03	0.00	High
360.00	0	0	20.00	1.54E-03	0.00	High
1400.00	0	0	20.00	1.54E-03	0.00	High



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:15

Number of Release Sites: 1.

Release Activity: William 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	2.75E-04 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	1.10E-06 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Other Ind 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:15                      RELEASE ACTIVITY: William 250 dy  
 FACILITY NAME: DEPT OF WATER RESOURCES  
 FACILITY LOCATION: CASTAIC CA 91310  
 RECEIVING WATER NAME: GORMON CR  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 18070102022                                  Unk  
 NPDES PERMIT #: CA0059188    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	250.	1.10e-06	1.10E-06	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	0.29	2.15E-02	1.00E-02	1.00E-02	NA
CONCENTRATION (µg/L)	3.79E-03	5.12E-02	0.11	0.11	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.43E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.10E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.94E-06 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#: 16

Number of Release Sites: 1.

Release Activity: William 20 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	2.82E-04	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.41E-05	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Other Ind 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:16                      RELEASE ACTIVITY: William 20 dy  
 FACILITY NAME: DEPT OF WATER RESOURCES  
 FACILITY LOCATION: CASTAIC CA 91310  
 RECEIVING WATER NAME: GORMON CR  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 18070102022                                      Unk  
 NPDES PERMIT #: CA0059188    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.00001	1.41E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	0.29	2.15E-02	1.00E-02	1.00E-02	NA
CONCENTRATION (µg/L)	4.86E-02	0.66	1.41	1.41	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	1.46E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	1.13E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	2.49E-05 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Ind 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER  
RELEASES**

SCENARIO NUMBER: 16                      RELEASE ACTIVITY: William 20 dy

FACILITY NAME: DEPT OF WATER RESOURCES

FACILITY LOCATION: CASTAIC CA 91310

RECEIVING STREAM NAME: GORMON CR

REACH NUMBER: 18070102022      FACILITY ON REACH:      DISCHARGE TYPE:  
Unk    Direct

NPDES PERMIT NUMBER:              GAGING STATION ID: N/A  
CA0059188

GAGING STATION PERIOD OF      GAGING STATION              NUMBER OF  
RECORD: N/A                              NUMBER OF                      STATIONS ON REACH:  
OBSERVATIONS: N/A                      N/A

MEAN FLOW (MLD): 11.38              7q10 FLOW (MLD): 1.00E-      EFFLUENT FLOW  
02    (MLD):1.00E-02

RESULTS					
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	0	0	20.00	1.40E-05	0.00
360.00	0	0	20.00	1.40E-05	0.00
1400.00	0	0	20.00	1.40E-05	0.00





**15. OES: OTHER COMMERCIAL USES**

**INITIAL REVIEW EXPOSURE REPORT**

Chemical ID: PERC Other Comm 00

Assessor:

<b>ENVIRONMENTAL RELEASES</b>
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Scenario#: 1

Number of Release Sites: 1.

Release Activity: Union 250 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	0.72	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	2.87E-03	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE ACTIVITY: Union 250 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	250.	0.00287	2.87E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	9.97E-03	2.32E-02	3.67E-02	4.35E-02
ALL	10	39.60	13.29	7.76	7.57	7.25E-02	0.22	0.37	0.38

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	3.75E-08	2.73E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	2.89E-06	2.10E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	8.78E-07	8.18E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1

RELEASE ACTIVITY: Union 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	2.87E-03	0.00	High
360.00	0	0	250.00	2.87E-03	0.00	High
1400.00	0	0	250.00	2.87E-03	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Union 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.72 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	3.59E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2                                      Number of Sites: 1                                      RELEASE ACTIVITY: Union 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.0359	3.59E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	0.12	0.29	0.46	0.54
ALL	10	39.60	13.29	7.76	7.57	0.91	2.70	4.63	4.74

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	3.76E-08	2.73E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	2.89E-06	2.10E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.10E-05	1.02E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

### SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2

RELEASE ACTIVITY: Union 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

### SIC CODE RESULTS

COC ( $\mu\text{g/L}$ )	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	3.59E-02	0.00	High
360.00	0	0	20.00	3.59E-02	0.00	High
1400.00	0	0	20.00	3.59E-02	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:3

Number of Release Sites: 1.

Release Activity: Confluence 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	7.50E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	3.00E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 3                      Number of Sites: 1                      RELEASE ACTIVITY: Confluence 250 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	250.	0.0003	3.00E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	1.04E-03	2.42E-03	3.84E-03	4.54E-03
ALL	10	39.60	13.29	7.76	7.57	7.58E-03	2.26E-02	3.87E-02	3.96E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	3.92E-09	2.85E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	3.02E-07	2.20E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	9.18E-08	8.55E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

### SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 3

RELEASE ACTIVITY: Confluence 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

### SIC CODE RESULTS

COC ( $\mu\text{g/L}$ )	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	3.00E-04	0.00	High
360.00	0	0	250.00	3.00E-04	0.00	High
1400.00	0	0	250.00	3.00E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:4

Number of Release Sites: 1.

Release Activity: Confluence 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	7.50E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	3.75E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4                      Number of Sites: 1                      RELEASE ACTIVITY: Confluence 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.00375	3.75E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	3Q5	7Q10	1Q10	Harmonic Mean	3Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	1.30E-02	3.03E-02	4.80E-02	5.68E-02
ALL	10	39.60	13.29	7.76	7.57	9.47E-02	0.28	0.48	0.50

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	3.92E-09	2.85E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	3.02E-07	2.20E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.15E-06	1.07E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4

RELEASE ACTIVITY: Confluence 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	3.75E-03	0.00	High
360.00	0	0	20.00	3.75E-03	0.00	High
1400.00	0	0	20.00	3.75E-03	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:5

Number of Release Sites: 1.

Release Activity: Wynkoop 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.85E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	1.54E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 5                      Number of Sites: 1                      RELEASE  
ACTIVITY: Wynkoop 250  
dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION:  
Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	250.	0.00015	1.54E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	5.35E-04	1.24E-03	1.97E-03	2.33E-03
ALL	10	39.60	13.29	7.76	7.57	3.89E-03	1.16E-02	1.98E-02	2.03E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.01E-09	1.46E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.55E-07	1.13E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.71E-08	4.39E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 5

RELEASE ACTIVITY: Wynkoop 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	1.54E-04	0.00	High
360.00	0	0	250.00	1.54E-04	0.00	High
1400.00	0	0	250.00	1.54E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:6

Number of Release Sites: 1.

Release Activity: Wynkoop 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.84E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.92E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 6                      Number of Sites: 1                      RELEASE ACTIVITY: Wynkoop 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.00192	1.92E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	6.67E-03	1.55E-02	2.46E-02	2.91E-02
ALL	10	39.60	13.29	7.76	7.57	4.85E-02	0.14	0.25	0.25

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.01E-09	1.46E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.55E-07	1.12E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	5.87E-07	5.47E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 6

RELEASE ACTIVITY: Wynkoop 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	1.92E-03	0.00	High
360.00	0	0	20.00	1.92E-03	0.00	High
1400.00	0	0	20.00	1.92E-03	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:7

Number of Release Sites: 1.

Release Activity: Saint Paul 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.07E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	4.27E-05 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 7                      Number of Sites: 1                      RELEASE  
ACTIVITY: Saint Paul 250  
dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION:  
Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	250.	0.00004	4.27E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	1.48E-04	3.45E-04	5.46E-04	6.46E-04
ALL	10	39.60	13.29	7.76	7.57	1.08E-03	3.21E-03	5.50E-03	5.64E-03

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	5.59E-10	4.06E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.30E-08	3.12E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.31E-08	1.22E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 7

RELEASE ACTIVITY: Saint Paul 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	4.30E-05	0.00	High
360.00	0	0	250.00	4.30E-05	0.00	High
1400.00	0	0	250.00	4.30E-05	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:8

Number of Release Sites: 1.

Release Activity: Saint Paul 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.07E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	5.34E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 8                      Number of Sites: 1                      RELEASE ACTIVITY: Saint Paul 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.00053	5.34E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	1.85E-03	4.31E-03	6.83E-03	8.08E-03
ALL	10	39.60	13.29	7.76	7.57	1.35E-02	4.02E-02	6.88E-02	7.05E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	5.59E-10	4.06E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.30E-08	3.13E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.63E-07	1.52E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 8

RELEASE ACTIVITY: Saint Paul 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	5.34E-04	0.00	High
360.00	0	0	20.00	5.34E-04	0.00	High
1400.00	0	0	20.00	5.34E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:9

Number of Release Sites: 1.

Release Activity: BPI 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	8.60E-03 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	3.44E-05 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 9                                  Number of Sites: 1                                  RELEASE ACTIVITY: BPI  
250 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                                  EXPOSED POPULATION:  
Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	250.	0.00003	3.44E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	1.19E-04	2.78E-04	4.40E-04	5.21E-04
ALL	10	39.60	13.29	7.76	7.57	8.69E-04	2.59E-03	4.43E-03	4.54E-03

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	4.50E-10	3.27E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	3.46E-08	2.52E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.05E-08	9.80E-08	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 9

RELEASE ACTIVITY: BPI 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	3.40E-05	0.00	High
360.00	0	0	250.00	3.40E-05	0.00	High
1400.00	0	0	250.00	3.40E-05	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:10

Number of Release Sites: 1.

Release Activity: BPI 20 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	8.60E-03	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	4.30E-04	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 10                      Number of Sites: 1                      RELEASE ACTIVITY: BPI  
20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION:  
Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.00043	4.30E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	1.49E-03	3.47E-03	5.50E-03	6.51E-03
ALL	10	39.60	13.29	7.76	7.57	1.09E-02	3.24E-02	5.54E-02	5.68E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	4.50E-10	3.27E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	3.46E-08	2.52E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.32E-07	1.23E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 10

RELEASE ACTIVITY: BPI 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	4.30E-04	0.00	High
360.00	0	0	20.00	4.30E-04	0.00	High
1400.00	0	0	20.00	4.30E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:11

Number of Release Sites: 1.

Release Activity: Safeway 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.90E-03 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	1.56E-05 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 11                      Number of Sites: 1                      RELEASE ACTIVITY:Safeway 250 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	250.	0.00002	1.56E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	5.42E-05	1.26E-04	2.00E-04	2.36E-04
ALL	10	39.60	13.29	7.76	7.57	3.94E-04	1.17E-03	2.01E-03	2.06E-03

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.04E-10	1.48E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.57E-08	1.14E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.77E-09	4.45E-08	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 11

RELEASE ACTIVITY: Safeway 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	1.60E-05	0.00	High
360.00	0	0	250.00	1.60E-05	0.00	High
1400.00	0	0	250.00	1.60E-05	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:12

Number of Release Sites: 1.

Release Activity: Safeway 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.90E-03 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.95E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 12                      Number of Sites: 1                      RELEASE ACTIVITY:Safeway 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.0003	1.95E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	6.77E-04	1.57E-03	2.49E-03	2.95E-03
ALL	10	39.60	13.29	7.76	7.57	4.92E-03	1.47E-02	2.51E-02	2.58E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.04E-10	1.48E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.57E-08	1.14E-07	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	5.96E-08	5.56E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

<b>SIC CODE EXPOSURES TO SURFACE WATER RELEASES</b>
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SCENARIO #: 12

RELEASE ACTIVITY: Safeway 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

<b>SIC CODE RESULTS</b>
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COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	1.95E-04	0.00	High
360.00	0	0	20.00	1.95E-04	0.00	High
1400.00	0	0	20.00	1.95E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:13

Number of Release Sites: 1.

Release Activity: Illinois 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.28E-03 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	1.31E-05 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 13                      Number of Sites: 1                      RELEASE ACTIVITY: Illinois 250 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	250.	0.00001	1.31E-05	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	4.55E-05	1.06E-04	1.68E-04	1.98E-04
ALL	10	39.60	13.29	7.76	7.57	3.31E-04	9.86E-04	1.69E-03	1.73E-03

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.71E-10	1.25E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.32E-08	9.59E-08	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.01E-09	3.73E-08	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 13

RELEASE ACTIVITY: Illinois 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	1.30E-05	0.00	High
360.00	0	0	250.00	1.30E-05	0.00	High
1400.00	0	0	250.00	1.30E-05	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:14

Number of Release Sites: 1.

Release Activity: Illinois 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	3.28E-03 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	1.64E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 14                      Number of Sites: 1                      RELEASE ACTIVITY: Illinois 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.00016	1.64E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	5.69E-04	1.32E-03	2.10E-03	2.48E-03
ALL	10	39.60	13.29	7.76	7.57	4.14E-03	1.23E-02	2.11E-02	2.17E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.72E-10	1.25E-09	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.32E-08	9.60E-08	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	5.02E-08	4.67E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Other Comm 00

### SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 14

RELEASE ACTIVITY: Illinois 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

### SIC CODE RESULTS

COC ( $\mu\text{g/L}$ )	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	1.64E-04	0.00	High
360.00	0	0	20.00	1.64E-04	0.00	High
1400.00	0	0	20.00	1.64E-04	0.00	High

**16. OES: WASTE HANDLING, DISPOSAL, TREATMENT, AND RECYCLING**

**INITIAL REVIEW EXPOSURE REPORT**

Chemical ID: PERC Waste 00

Assessor:

<b>ENVIRONMENTAL RELEASES</b>
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Scenario#: 1

Number of Release Sites: 1.

Release Activity: Clean Water 250 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	0.94	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	3.76E-03	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE  
ACTIVITY: Clean Water  
250 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION:  
Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	250.	0.00376	3.76E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	1.31E-02	3.04E-02	4.81E-02	5.69E-02
ALL	10	39.60	13.29	7.76	7.57	9.49E-02	0.28	0.48	0.50

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	4.92E-08	3.58E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	3.78E-06	2.75E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.15E-06	1.07E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1

RELEASE ACTIVITY: Clean Water 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	3.76E-03	0.00	High
360.00	0	0	250.00	3.76E-03	0.00	High
1400.00	0	0	250.00	3.76E-03	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Clean Water 20 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	0.94	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	4.70E-02	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2                                  Number of Sites: 1                                  RELEASE ACTIVITY: Clean Water 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                                  EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.047	4.70E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	0.16	0.38	0.60	0.71
ALL	10	39.60	13.29	7.76	7.57	1.19	3.54	6.06	6.21

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	4.92E-08	3.58E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	3.78E-06	2.75E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.44E-05	1.34E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2

RELEASE ACTIVITY: Clean Water 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	4.70E-02	0.00	High
360.00	0	0	20.00	4.70E-02	0.00	High
1400.00	0	0	20.00	4.70E-02	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:3

Number of Release Sites: 1.

Release Activity: Clifford 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	5.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	2.00E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 3                      Number of Sites: 1                      RELEASE ACTIVITY: Clifford 250 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	250.	0.0002	2.00E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	6.94E-04	1.61E-03	2.56E-03	3.03E-03
ALL	10	39.60	13.29	7.76	7.57	5.05E-03	1.50E-02	2.58E-02	2.64E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.62E-09	1.90E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	2.01E-07	1.46E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	6.12E-08	5.70E-07	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 3

RELEASE ACTIVITY: Clifford 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	2.00E-04	0.00	High
360.00	0	0	250.00	2.00E-04	0.00	High
1400.00	0	0	250.00	2.00E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:4

Number of Release Sites: 1.

Release Activity: Clifford 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	5.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	2.50E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4                      Number of Sites: 1                      RELEASE ACTIVITY: Clifford 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.0025	2.50E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	8.68E-03	2.02E-02	3.20E-02	3.79E-02
ALL	10	39.60	13.29	7.76	7.57	6.31E-02	0.19	0.32	0.33

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.62E-09	1.90E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	2.01E-07	1.46E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	7.65E-07	7.12E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:



## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

### SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4

RELEASE ACTIVITY: Clifford 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

### SIC CODE RESULTS

COC ( $\mu\text{g/L}$ )	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	2.50E-03	0.00	High
360.00	0	0	20.00	2.50E-03	0.00	High
1400.00	0	0	20.00	2.50E-03	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:5

Number of Release Sites: 1.

Release Activity: Durez 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	4.00E-05 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC Waste 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 5	RELEASE ACTIVITY: Durez 250 dy	
FACILITY NAME: OCCIDENTAL CHEMICAL-DUREZ DIV		
FACILITY LOCATION: NORTH TONAWANDA NY 141200535		
RECEIVING WATER NAME: NIAGARA R		
REACH NUMBER: 04120104007	FACILITY ON REACH: Yes	DISCHARGE TYPE: Direct
NPDES PERMIT #: NY0001198	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	250.	1.88	0.00004	4.00E-05	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	2.13E-02
CHRONIC SCENARIO	1.00	2.13E-02

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:6

Number of Release Sites: 1.

Release Activity: Durez 20 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	1.00E-02	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	5.00E-04	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: PERC Waste 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES:  LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 6	RELEASE ACTIVITY: Durez 20 dy	
FACILITY NAME: OCCIDENTAL CHEMICAL-DUREZ DIV		
FACILITY LOCATION: NORTH TONAWANDA NY 141200535		
RECEIVING WATER NAME: NIAGARA R		
REACH NUMBER: 04120104007	FACILITY ON REACH: Yes	DISCHARGE TYPE: Direct
NPDES PERMIT #: NY0001198	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST- TREAT RELEASE (kg/site/day)	BCF (L/kg)
0.	20.	1.88	0.0005	5.00E-04	0.00

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	1.00	0.27
CHRONIC SCENARIO	1.00	0.27

FISH INGESTION EXPOSURE ESTIMATES
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Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD <sub>pot</sub> (mg/kg/day)	0.00	33.00	78.00	80.00	7.50
LADC <sub>pot</sub> (mg/kg)	0.00	33.00	78.00	NA	NA
Acute					
ADR <sub>pot</sub> (mg/kg/day)	0.00	NA	1 day	80.00	279.00

Lakes Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:7

Number of Release Sites: 1.

Release Activity: Oiltanking 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.83 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	3.32E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:



INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Waste 00

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER:7                      RELEASE ACTIVITY: Oiltanking 250 dy  
 FACILITY NAME: ROLLINS ENVIRONMENTAL SER  
 FACILITY LOCATION: DEER PARK TX 77536  
 RECEIVING WATER NAME: BUFFALO BAYOU  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 12040104015                              No  
 NPDES PERMIT #: TX0005941      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	250.	0.00332	3.32E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	167.70	15.59	9.15	9.15	NA
CONCENTRATION (µg/L)	1.98E-02	0.21	0.36	0.36	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	7.46E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	5.74E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	8.07E-06 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:8

Number of Release Sites: 1.

Release Activity: Oiltanking 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.83 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	4.15E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Waste 00

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER  
RELEASES**

SCENARIO NUMBER:8                      RELEASE ACTIVITY: Oiltanking 20 dy  
 FACILITY NAME: ROLLINS ENVIRONMENTAL SER  
 FACILITY LOCATION: DEER PARK TX 77536  
 RECEIVING WATER NAME: BUFFALO BAYOU  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 12040104015                      No  
 NPDES PERMIT #: TX0005941      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.	20.	0.0415	4.15E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	167.70	15.59	9.15	9.15	NA
CONCENTRATION (µg/L)	0.25	2.66	4.54	4.54	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	7.46E-08 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	5.74E-06 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.01E-04 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:9

Number of Release Sites: 1.

Release Activity: Pinewood 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.15 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	6.00E-04 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 9                                      Number of Sites: 1                                      RELEASE ACTIVITY: Pinewood 250 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	250.	0.0006	6.00E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	2.08E-03	4.84E-03	7.67E-03	9.08E-03
ALL	10	39.60	13.29	7.76	7.57	1.52E-02	4.51E-02	7.73E-02	7.93E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	7.85E-09	5.71E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	6.04E-07	4.39E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.84E-07	1.71E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 9

RELEASE ACTIVITY: Pinewood 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	6.00E-04	0.00	High
360.00	0	0	250.00	6.00E-04	0.00	High
1400.00	0	0	250.00	6.00E-04	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:10

Number of Release Sites: 1.

Release Activity: Pinewood 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	0.15 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	7.50E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 10                      Number of Sites: 1                      RELEASE ACTIVITY: Pinewood 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
0.00	20.	0.0075	7.50E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	2.60E-02	6.06E-02	9.59E-02	0.11
ALL	10	39.60	13.29	7.76	7.57	0.19	0.56	0.97	0.99

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	7.85E-09	5.71E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	6.04E-07	4.39E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.29E-06	2.14E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 00

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 10

RELEASE ACTIVITY: Pinewood 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	7.50E-03	0.00	High
360.00	0	0	20.00	7.50E-03	0.00	High
1400.00	0	0	20.00	7.50E-03	0.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:1

Number of Release Sites: 1.

Release Activity: Clean Harbors TX 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	87.50	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	250.00	0.00/250.00	N/A	N/A
Per Site Release:	0.35	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1                      Number of Sites: 1                      RELEASE  
ACTIVITY: Clean Harbors  
TX 250 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION:  
Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	250.	0.35	4.20E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	0.15	0.34	0.54	0.64
ALL	10	39.60	13.29	7.76	7.57	1.06	3.16	5.41	5.55

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	5.49E-07	4.00E-06	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.23E-05	3.07E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.28E-05	1.20E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1

RELEASE ACTIVITY: Clean Harbors TX 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	1	250.00	0.35	88.00	High
360.00	0	0	250.00	0.35	88.00	High
1400.00	0	0	250.00	0.35	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:2

Number of Release Sites: 1.

Release Activity: Clean Harbors TX 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	87.40 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	4.37 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2                                  Number of Sites: 1                                  RELEASE ACTIVITY: Clean Harbors TX 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                                  EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	20.	4.37	0.52	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	1.82	4.23	6.71	7.94
ALL	10	39.60	13.29	7.76	7.57	13.24	39.46	67.58	69.27

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	5.49E-07	3.99E-06	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.22E-05	3.07E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.60E-04	1.49E-03	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2

RELEASE ACTIVITY: Clean Harbors TX 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	1	4	20.00	4.37	88.00	High
360.00	0	0	20.00	4.37	88.00	High
1400.00	0	0	20.00	4.37	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:3

Number of Release Sites: 1.

Release Activity: Clean Harbors AR 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	9.28 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	3.71E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 3                      Number of Sites: 1                      RELEASE ACTIVITY: Clean Harbors AR 250 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	250.	0.0371	4.45E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	1.55E-02	3.59E-02	5.69E-02	6.74E-02
ALL	10	39.60	13.29	7.76	7.57	0.11	0.33	0.57	0.59

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	5.82E-08	4.24E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.48E-06	3.26E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.36E-06	1.27E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 3

RELEASE ACTIVITY: Clean Harbors AR 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	3.71E-02	88.00	High
360.00	0	0	250.00	3.71E-02	88.00	High
1400.00	0	0	250.00	3.71E-02	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:4

Number of Release Sites: 1.

Release Activity: Clean Harbors AR 20 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	9.20	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	0.46	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4                      Number of Sites: 1                      RELEASE ACTIVITY: Clean Harbors AR 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	20.	0.46	5.52E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	3Q5	7Q10	1Q10	Harmonic Mean	3Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	0.19	0.45	0.71	0.84
ALL	10	39.60	13.29	7.76	7.57	1.39	4.15	7.11	7.29

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	5.78E-08	4.20E-07	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	4.44E-06	3.23E-05	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	1.69E-05	1.57E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4

RELEASE ACTIVITY: Clean Harbors AR 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	0.46	88.00	High
360.00	0	0	20.00	0.46	88.00	High
1400.00	0	0	20.00	0.46	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:5

Number of Release Sites: 1.

Release Activity: Clean Harbors OH 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.00E-02 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	4.00E-05 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:



INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Waste 88

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:5                      RELEASE ACTIVITY: Clean Harbors OH 250 dy  
 FACILITY NAME: HEBRON VILLAGE OF  
 FACILITY LOCATION: HEBRON OH 43025  
 RECEIVING WATER NAME: LICKING R S FK  
 REACH NUMBER:                              FACILITY ON REACH: DISCHARGE TYPE: Direct  
 05040006021                                  No  
 NPDES PERMIT #: OH0021539    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.	250.	0.00004	4.80E-06	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	67.46	30.98	18.63	15.48	NA
CONCENTRATION (µg/L)	7.12E-05	1.55E-04	2.58E-04	3.10E-04	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	2.68E-10 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	2.06E-08 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	5.87E-09 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:6

Number of Release Sites: 1.

Release Activity: Heritage 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.00E-04 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	4.00E-07 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Waste 88

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER: 6                      RELEASE ACTIVITY: Heritage 250 dy  
 FACILITY NAME: EAST LIVERPOOL CITY OF  
 FACILITY LOCATION: EAST LIVERPOOL OH 43920  
 RECEIVING WATER NAME: OHIO R  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 05030101002                      Yes  
 NPDES PERMIT #: OH0024970    EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.	250.	4.00e-07	4.80E-08	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	3.76E+04	1.12E+04	8275.68	6590.59	NA
CONCENTRATION (µg/L)	1.28E-09	4.29E-09	5.80E-09	7.28E-09	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	4.81E-15 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	3.70E-13 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.63E-13 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:7

Number of Release Sites: 1.

Release Activity: Safety-Kleen KY 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	337.50 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	1.35 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 7                      Number of Sites: 1                      RELEASE ACTIVITY: Safety-Kleen KY 250 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	250.	1.35	0.16	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	0.56	1.31	2.07	2.45
ALL	10	39.60	13.29	7.76	7.57	4.09	12.19	20.88	21.40

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.12E-06	1.54E-05	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.63E-04	1.19E-03	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.95E-05	4.62E-04	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 7

RELEASE ACTIVITY: Safety-Kleen KY 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	2	9	250.00	1.35	88.00	High
360.00	0	0	250.00	1.35	88.00	High
1400.00	0	0	250.00	1.35	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:8

Number of Release Sites: 1.

Release Activity: Safety-Kleen KY 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	338.40 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	16.92 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 8                                      Number of Sites: 1                                      RELEASE ACTIVITY: Safety-Kleen KY 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	20.	16.92	2.03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	3Q5	7Q10	1Q10	Harmonic Mean	3Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	7.05	16.40	25.97	30.74
ALL	10	39.60	13.29	7.76	7.57	51.27	152.78	261.65	268.22

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	2.12E-06	1.55E-05	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.63E-04	1.19E-03	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	6.21E-04	5.79E-03	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 8

RELEASE ACTIVITY: Safety-Kleen KY 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	3	13	20.00	16.92	88.00	High
360.00	1	2	20.00	16.92	88.00	High
1400.00	0	0	20.00	16.92	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:9

Number of Release Sites: 1.

Release Activity: Safety-Kleen IN 250 dy

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
	Non-sludge/Sludge			

Total Releases:	67.50	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	0.27	N/A/0.00	N/A	N/A
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:



INITIAL EXPOSURE REVIEW REPORT

Chemical ID: PERC Waste 88

**SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES**

SCENARIO NUMBER:9                      RELEASE ACTIVITY: Safety-Kleen IN 250 dy  
 FACILITY NAME: EAST CHICAGO\_MUNICIPAL STP  
 FACILITY LOCATION: EAST CHICAGO IN 46312  
 RECEIVING WATER NAME:  
 REACH NUMBER:                      FACILITY ON REACH: DISCHARGE TYPE: Direct  
 04040001010                      Yes  
 NPDES PERMIT #: IN0022829      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.	250.	0.27	3.24E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER					
FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	127.76	106.59	66.94	66.94	NA
CONCENTRATION (µg/L)	0.25	0.30	0.48	0.48	NA

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES				
Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				

DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES			
LADD <sub>pot</sub>	9.55E-07 mg/kg/day	0.00 mg/kg/day	
LADC <sub>pot</sub>	7.35E-05 mg/L	0.00 mg/kg	
Acute			
ADR <sub>pot</sub>	1.15E-05 mg/kg/day	0.00	mg/kg/day

Surface Water Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER  
RELEASES

SCENARIO NUMBER: 9                      RELEASE ACTIVITY: Safety-Kleen IN 250 dy

FACILITY NAME: EAST CHICAGO\_MUNICIPAL STP

FACILITY LOCATION: EAST CHICAGO IN 46312

RECEIVING STREAM NAME:

REACH NUMBER: 04040001010      FACILITY ON REACH:      DISCHARGE TYPE:  
Yes                                      Direct

NPDES PERMIT NUMBER:              GAGING STATION ID: 04093200  
IN0022829

GAGING STATION PERIOD OF      GAGING STATION              NUMBER OF  
RECORD: 01/01/66 - 11/15/87      NUMBER OF              STATIONS ON REACH:  
OBSERVATIONS: 1780.00      1

50 %ile FLOW (MLD): 26.91      10 %ile FLOW (MLD):      EFFLUENT FLOW  
2.45                                      (MLD):66.94

RESULTS					
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
50.00	2	7	250.00	0.27	88.00
360.00	1	3	250.00	0.27	88.00
1400.00	1	3	250.00	0.27	88.00

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:10

Number of Release Sites: 1.

Release Activity: Tier 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	30.00 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	0.12 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 10                      Number of Sites: 1                      RELEASE ACTIVITY: Tier 250 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	250.	0.12	1.44E-02	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	5.00E-02	0.12	0.18	0.22
ALL	10	39.60	13.29	7.76	7.57	0.36	1.08	1.86	1.90

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.88E-07	1.37E-06	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	1.45E-05	1.05E-04	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	4.40E-06	4.10E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 10

RELEASE ACTIVITY: Tier 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	0.12	88.00	High
360.00	0	0	250.00	0.12	88.00	High
1400.00	0	0	250.00	0.12	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:11

Number of Release Sites: 1.

Release Activity: Tradebe 250 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.36 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	250.00	0.00/0.00	N/A	N/A
Per Site Release:	5.44E-03 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:



INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 11                      Number of Sites: 1                      RELEASE ACTIVITY: Tradebe 250 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	250.	0.00544	6.53E-04	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	2.27E-03	5.27E-03	8.35E-03	9.88E-03
ALL	10	39.60	13.29	7.76	7.57	1.65E-02	4.91E-02	8.41E-02	8.62E-02

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	8.54E-09	6.21E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	6.57E-07	4.78E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.00E-07	1.86E-06	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 11

RELEASE ACTIVITY: Tradebe 250 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	250.00	5.44E-03	88.00	High
360.00	0	0	250.00	5.44E-03	88.00	High
1400.00	0	0	250.00	5.44E-03	88.00	High

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

Assessor:

ENVIRONMENTAL RELEASES
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Scenario#:12

Number of Release Sites: 1.

Release Activity: Tradebe 20 dy

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:	1.36 (kg/yr)	N/A (kg/yr)	N/A (kg/yr)	N/A (kg/yr)
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Non-sludge/Sludge

Release Days/yr:	20.00	0.00/0.00	N/A	N/A
Per Site Release:	6.80E-02 (kg/site/day)	N/A/0.00 (kg/site/day)	N/A (kg/site/day)	N/A (kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 12                      Number of Sites: 1                      RELEASE ACTIVITY: Tradebe 20 dy

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): subset of 4952                      EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
88.00	20.	0.068	8.16E-03	0.00	0.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	2.83E-02	6.59E-02	0.10	0.12
ALL	10	39.60	13.29	7.76	7.57	0.21	0.61	1.05	1.08

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	8.54E-09	6.21E-08	mg/kg/day	0.00	0.00	mg/kg/day
LADC <sub>pot</sub>	6.57E-07	4.78E-06	mg/L	0.00	0.00	mg/kg
Acute						
ADR <sub>pot</sub>	2.50E-06	2.33E-05	mg/kg/day	0.00	0.00	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: PERC Waste 88

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 12

RELEASE ACTIVITY: Tradebe 20 dy

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: subset of 4952

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
50.00	0	0	20.00	6.80E-02	88.00	High
360.00	0	0	20.00	6.80E-02	88.00	High
1400.00	0	0	20.00	6.80E-02	88.00	High