HOPEWELL COGENERATION FACILITY
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GDF SUEZ

Appendix 3.

Aspect and Impact Documentation Form

Reference: HCF Procedure A-13

Environmental Aspects and Impacts

1.0 Purpose

The purpose of this procedure is to provide a system and instructions to identify environmental aspects of Hopewell Cogeneration Facility activities, and services in order to determine those which may have a significant impact on the environment.

2.0 Scope

This procedure covers all activities, products, and services associated with Hopewell Cogeneration Facility. For purposes of evaluation, activities, products, and services with similar characteristics may be grouped together.

4.11 Reference Documents

Document Name

Air Permit
Water Permit
Aspect/Impact Evaluation Form
A-18 Process Flow Diagram

4.0 Procedure

4.1 The procedure consists of an initial screening of activities, and services, based on data submitted by the plant engineer. The Task Force assesses the aspects, determines associated impacts, and assigns an impact rating. The Task Force will review the evaluation results, and up-date as needed. They will use permits, regulations, local laws and ordinances, and consider impacts by outside contractors and service providers.

4.2 The Plant Managers is responsible for developing a flowchart for the plant showing all inputs and outputs to their processes (A-18 Process Flow Diagram). Inputs into the process may include supplies, raw materials, chemicals, packaging, and energy consumption. Outputs from the process may include products, solid wastes, liquid wastes, emissions, noise, and odor. The flowcharts shall also include the current method of handling generated wastes.

4.3 The Task Force shall evaluate the information submitted on the flowcharts. The Task Force may call upon other Hopewell Cogeneration Facility Team Members to assist, as needed. Each activity and service shall be evaluated from the time the material is accepted on site through the time of delivery off site. If a waste is being evaluated, the timeline to consider is the time the material is accepted on site through ultimate disposal, as displayed by the diagram below.

Accept Material as Waste

|----------packaged for disposal--------| Site Location
|----------Waste----------| Ultimate Disposal

4.4 The Task Force shall assign an impact rating according to the scales described below, while considering each of the following stages: raw material storage, production (accidents, start up, and normal operation), product and waste storage, transportation, and ultimate disposal.

4.5 The Task Force shall ask for each aspect / impact evaluation:

a) Is it in our permits / permittable?
b) Is it regulated by law?
c) Do we have control over it?

If the answer to a and/or b is "yes", the impact *must* be included on the list of significant impacts. If the answer to c is "no", the impact shall not be included on the list of significant impacts. The following table explains the different possible answers.

Possible Answer	Permitted / Permittable	Regulated by Law	Do we have Control
Yes	must include	must include	may include
No	may include	may include	shall not include

4.6 When evaluating the "frequency", the number shall be determined from the following scale, based on documented evidence, by asking the following questions to determine frequency of use and of accidents: (1). How often does the process occur? (2). How often has a problem occurred?

Frequency	Scale
Continuously	10
once per shift	9
once per day	8
Weekly	7
Monthly	6
Quarterly	5
semi-annually	4
Annually	3
once every 1 to 5 years	2
over 5 years	1
Never	0

4.7 When evaluating the "severity" the task force shall assign an impact number by selecting the highest evaluated rate from the scale below, based on documented evidence. When considering human impact, it is important to include contractors, neighbors, customers, etc., as well as team members.

Severity Scale	Human Impact	Animal / Plant Effect	Public Relations
10	multiple deaths	widespread permanent destruction	plant closure
9	single death	on-site permanent destruction	permanent public disfavor
8	disabling injury	widespread genetic impact	interrupted operations
7	long term health effects	on site genetic impact	loss of historical assets
6	lost time Injury/Illness	wide spread disfigurement	state or national protest
5	restricted duty	on-site disfigurement	city or county protest
4	medical only	wide spread appearance	employee protest
3	first aid treatment	reduction of natural beauty	public inconvenience

2	Discomfort	on-site appearance	public disfavor
1	None	none	none
0	N/A	N/A	N/A

4.8 Impact ratings shall be determined by multiplying the frequency and severity numbers. The Task Force shall determine an appropriate cutoff level for significant impacts.

4.9 The Environmental Manager shall work closely with the Plant Management to ensure that the identified significant environmental aspects are considered in establishing environmental objectives and targets for Hopewell Cogeneration Facility.

4.10 The results of the most recent environment aspect / impact identification is reviewed as part of the Management Review process, as specified in the Management Review. From this review Hopewell Cogeneration Facility Management determines the need to update the environmental impact evaluation. Factors considered in the determination to update the assessment include improved methodologies, and major changes in Hopewell Cogeneration Facility's policies, products, or processes. Aspect reviews may also be triggered from the Initial Production Control (IPC) and Contract Review process. Environmental impact evaluations shall be conducted at least, on an annual basis, *by the end of each calendar year,* even if none of the factors listed above dictate a review.

ASPECT / IMPACT EVALUATION

Aspect/Impact/Activity: Date:

		Frequency		**Severity**				
Category	Stages	Use	Incident	Human Impact	Animal/ Plant	Public	Impact Rating	>70* Significant Y/N
Air Quality	Raw Material Storage							
Water Quality	Production (Start-Up)							
Land Quality	Production (Normal)							
Consumption	Product/ Waste Storage							
	Transportation							
	Ultimate Disposal							
					Overall Rating			

Please note: Significant Impact if

- permittable
- required by law
- over the establish cut off*

* The cut off for significant Impacts is to be established at about 10~15% of the total number of aspects.

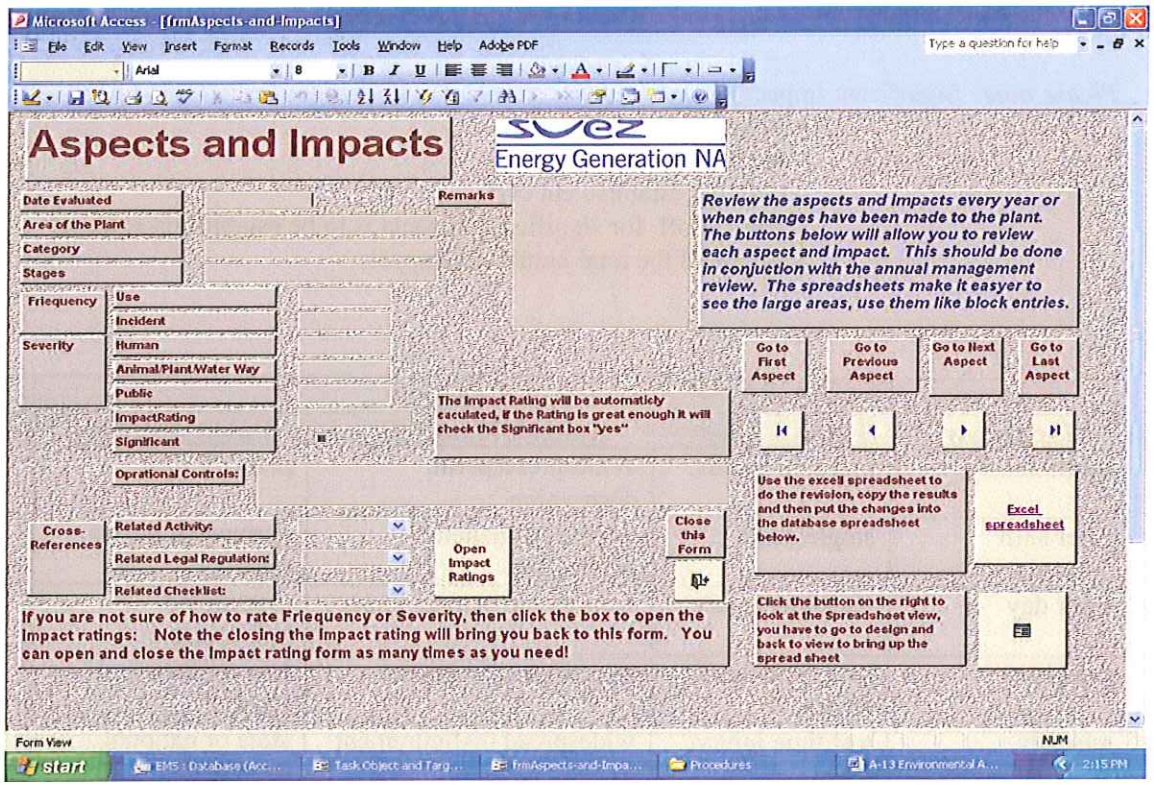
	Severity			
Frequency	**Human Impact**	**Animal/ Plant Effect**	**Public Relations**	**Scale**
continuously	multiple deaths	Widespread perm. destruction	plant closure	10
1 per shift	single death	on-site permanent destruction	permanent public disfavor	9
1 per day	disabling injury	widespread genetic impact	interrupted operations	8
weekly	long term health effects	on-site genetic impact	loss of historical assets	7
monthly	lost time injury/ illness	widespread disfigurement	state or national protest	6
quarterly	restricted duty	on-site disfigurement	city or county protest	5
semi-annually	medical only	widespread appearance	employee protest	4
annually	first aid treatment	reduction of natural beauty	public inconvenience	3
1 every 1 - 5 yrs	discomfort	on-site appearance	public disfavor	2
over 5 yrs	none	none	none	1
never *(Use Only)*				0

4.11 **Updating Aspects and Impacts: (every year)**

4.11.1 Open EMS Program, click on the second button to go into aspects and impacts

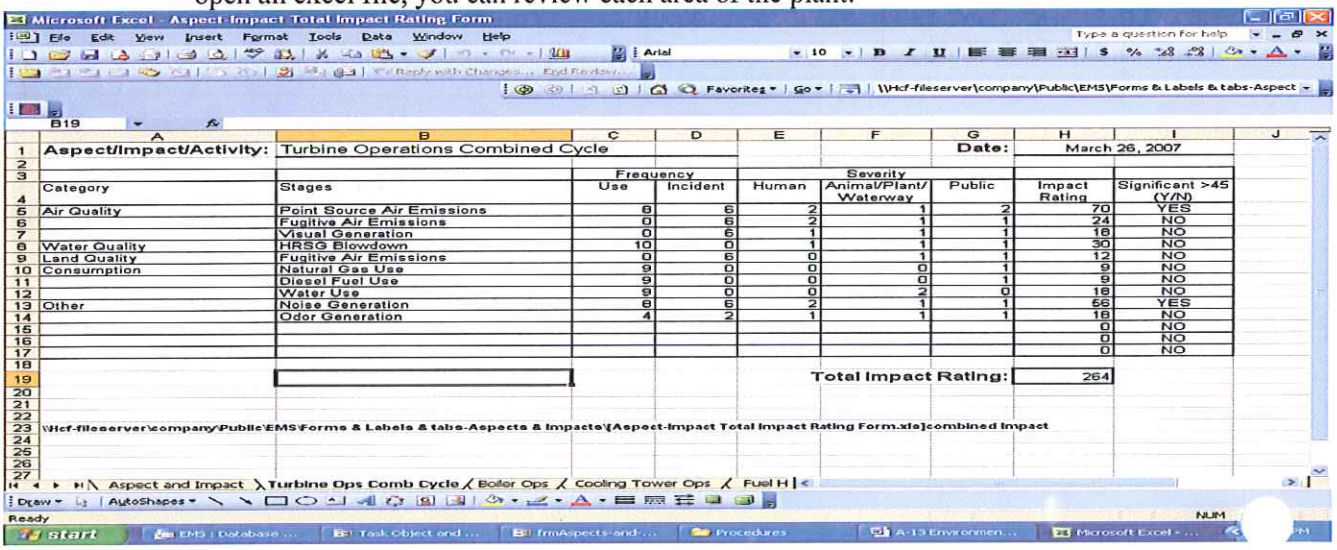
4.11.2 Click on the button "Add Aspects and Impact Statements"

4.11.2 This will open this form:



The buttons on the far right will let you update/add an aspect and impact one at a time. To help in the process one can print the scales out by clicking on the "Open Aspects Rating" button middle bottom of the page. A review should be conducted every year or if there is a change in the plant or possible regulatory changes. A good time to review the aspects and impacts is during/before a quarterly meeting or the Annual Management Review.

Block Entry Review: go to the button that says excel spreadsheet. This will open an excel file, you can review each area of the plant.



Microsoft Excel - Aspect-Impact Total Impact Rating Form

Aspect/Impact/Activity: Turbine Operations Combined Cycle — Date: March 26, 2007

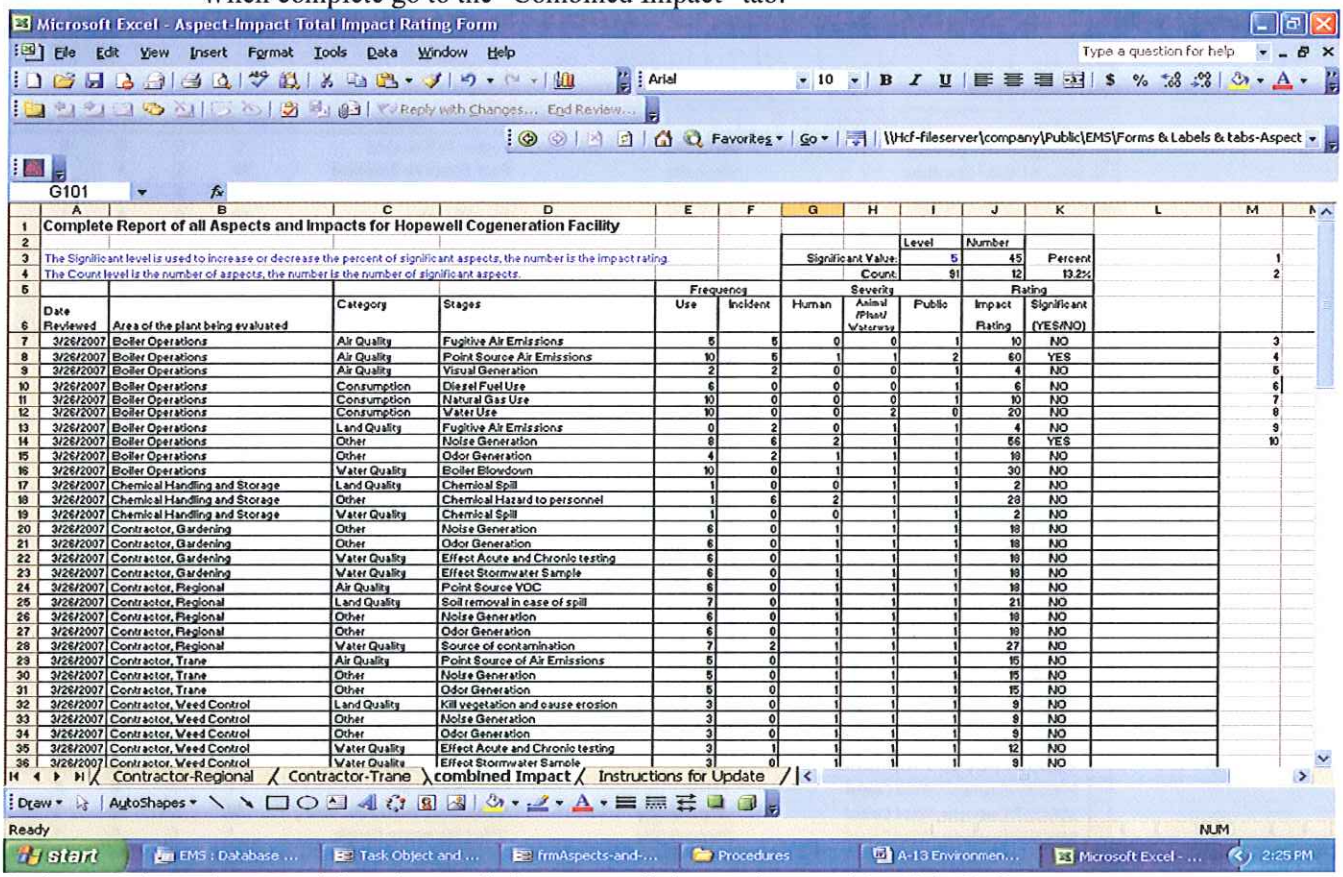
Category	Stages	Frequency Use	Frequency Incident	Severity Human	Severity Animal/Plant/Waterway	Severity Public	Impact Rating	Significant >45 (Y/N)
Air Quality	Point Source Air Emissions	8	6	2	1	2	70	YES
	Fugitive Air Emissions	0	6	2	1	1	24	NO
	Visual Generation	0	6	1	1	1	18	NO
Water Quality	HRSG Blowdown	10	0	1	1	1	30	NO
Land Quality	Fugitive Air Emissions	0	6	0	1	1	12	NO
Consumption	Natural Gas Use	9	0	0	0	1	9	NO
	Diesel Fuel Use	9	0	0	0	1	9	NO
	Water Use	9	0	0	2	0	18	NO
Other	Noise Generation	8	6	2	1	1	56	YES
	Odor Generation	4	2	1	1	1	18	NO
							0	NO
							0	NO
							0	NO

Total Impact Rating: 264

\\Hcf-fileserver\company\Public\EMS\Forms & Labels & tabs-Aspects & Impacts\[Aspect-Impact Total Impact Rating Form.xls]combined Impact

Aspect and Impact | Turbine Ops Comb Cycle | Boiler Ops | Cooling Tower Ops | Fuel H

When complete go to the "Combined Impact" tab.



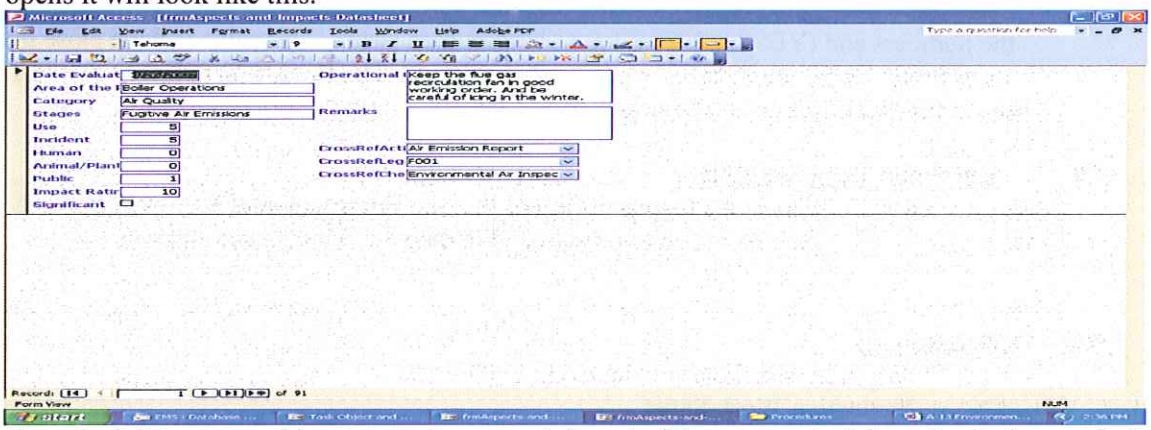
Complete Report of all Aspects and Impacts for Hopewell Cogeneration Facility

The Significant level is used to increase or decrease the percent of significant aspects, the number is the impact rating.
The Count level is the number of aspects, the number is the number of significant aspects.

	Level	Number	
Significant Value:	5	45	Percent
Count:	91	12	13.2%

Date Reviewed	Area of the plant being evaluated	Category	Stages	Frequency: Use	Frequency: Incident	Severity: Human	Severity: Animal /Plant/ Waterway	Severity: Public	Rating: Impact Rating	Rating: Significant (YES/NO)	
3/26/2007	Boiler Operations	Air Quality	Fugitive Air Emissions	5	5	0	0	1	10	NO	3
3/26/2007	Boiler Operations	Air Quality	Point Source Air Emissions	10	5	1	1	2	60	YES	4
3/26/2007	Boiler Operations	Air Quality	Visual Generation	2	2	0	0	1	4	NO	5
3/26/2007	Boiler Operations	Consumption	Diesel Fuel Use	6	0	0	0	1	6	NO	6
3/26/2007	Boiler Operations	Consumption	Natural Gas Use	10	0	0	0	1	10	NO	7
3/26/2007	Boiler Operations	Consumption	Water Use	10	0	0	2	0	20	NO	8
3/26/2007	Boiler Operations	Land Quality	Fugitive Air Emissions	0	2	0	1	1	4	NO	9
3/26/2007	Boiler Operations	Other	Noise Generation	8	6	2	1	1	66	YES	10
3/26/2007	Boiler Operations	Other	Odor Generation	4	2	1	1	1	18	NO	
3/26/2007	Boiler Operations	Water Quality	Boiler Blowdown	10	0	1	1	1	30	NO	
3/26/2007	Chemical Handling and Storage	Land Quality	Chemical Spill	1	0	0	1	1	2	NO	
3/26/2007	Chemical Handling and Storage	Other	Chemical Hazard to personnel	1	6	2	1	1	28	NO	
3/26/2007	Chemical Handling and Storage	Water Quality	Chemical Spill	1	0	0	1	1	2	NO	
3/26/2007	Contractor, Gardening	Other	Noise Generation	6	0	1	1	1	18	NO	
3/26/2007	Contractor, Gardening	Other	Odor Generation	6	0	1	1	1	18	NO	
3/26/2007	Contractor, Gardening	Water Quality	Effect Acute and Chronic testing	6	0	1	1	1	18	NO	
3/26/2007	Contractor, Gardening	Water Quality	Effect Stormwater Sample	6	0	1	1	1	18	NO	
3/26/2007	Contractor, Regional	Air Quality	Point Source VOC	6	0	1	1	1	18	NO	
3/26/2007	Contractor, Regional	Land Quality	Soil removal in case of spill	7	0	1	1	1	21	NO	
3/26/2007	Contractor, Regional	Other	Noise Generation	6	0	1	1	1	18	NO	
3/26/2007	Contractor, Regional	Other	Odor Generation	6	0	1	1	1	18	NO	
3/26/2007	Contractor, Regional	Water Quality	Source of contamination	7	2	1	1	1	27	NO	
3/26/2007	Contractor, Trane	Air Quality	Point Source of Air Emissions	5	0	1	1	1	15	NO	
3/26/2007	Contractor, Trane	Other	Noise Generation	5	0	1	1	1	15	NO	
3/26/2007	Contractor, Trane	Other	Odor Generation	5	0	1	1	1	15	NO	
3/26/2007	Contractor, Weed Control	Land Quality	Kill vegetation and cause erosion	3	0	1	1	1	9	NO	
3/26/2007	Contractor, Weed Control	Other	Noise Generation	3	0	1	1	1	9	NO	
3/26/2007	Contractor, Weed Control	Other	Odor Generation	3	0	1	1	1	9	NO	
3/26/2007	Contractor, Weed Control	Water Quality	Effect Acute and Chronic testing	3	1	1	1	1	12	NO	
3/26/2007	Contractor, Weed Control	Water Quality	Effect Stormwater Sample	3	0	1	1	1	9	NO	

Make sure the entire spreadsheet is sorted, then copy all the numbers and (YES/NO) from top to bottom and place it in the Data base spreadsheet. After coping click the red X and if it ask if you want to save say yes. Then open the database spreadsheet just one button below. When it opens it will look like this:



To make it into a spreadsheet, go to the upper left part of the page and click on the design symbol or go to VIEW and click on Design View, then click back on Datasheet View to bring up the spread sheet like this:

Microsoft Access - [frmAspects-and-Impacts-Datasheet]

Date Evalu	Area of the Plant	Category	Stages	Use	Incident	Human	Animal/F	Public
3/26/2007	Boiler Operations	Air Quality	Fugitive Air Emissions	5	5	0	0	1
3/26/2007	Boiler Operations	Air Quality	Point Source Air Emissions	10	5	1	1	2
3/26/2007	Boiler Operations	Air Quality	Visual Generation	8	2	2	1	1
3/26/2007	Boiler Operations	Consumption	Diesel Fuel Use	10	0	1	1	1
3/26/2007	Boiler Operations	Consumption	Natural Gas Use	1	1	0	1	0
3/26/2007	Boiler Operations	Consumption	Water Use	6	0	1	1	1
3/26/2007	Boiler Operations	Hearing Loss	Noise Generation	6	0	0	0	1
3/26/2007	Boiler Operations	Land Quality	Fugitive Air Emissions	6	6	1	1	1
3/26/2007	Boiler Operations	Nuisance	Odor Generation	4	0	1	1	1
3/26/2007	Boiler Operations	Water Quality	Boiler Blowdown	8	1	1	1	1
3/26/2007	Chemical Handling and Storage	Land Quality	Chemical Spill	8	6	2	1	1
3/26/2007	Chemical Handling and Storage	Personnel Hazard	Chemical Hazard to personnel	8	1	1	1	1
3/26/2007	Chemical Handling and Storage	Water Quality	Chemical Spill	10	2	1	1	2
3/26/2007	Contractor, Gardening	Other	Noise Generation	10	1	0	2	2
3/26/2007	Contractor, Gardening	Other	Odor Generation	1	0	0	6	5
3/26/2007	Contractor, Gardening	Water Quality	Effect Acute and Chronic testing	1	0	1	1	2
3/26/2007	Contractor, Gardening	Water Quality	Effect Stormwater Sample	1	0	1	1	2
3/26/2007	Contractor, Regional	Air Quality	Point Source VOC	1	6	1	1	2
3/26/2007	Contractor, Regional	Land Quality	Soil removal in case of spill	1	0	0	6	5
3/26/2007	Contractor, Regional	Other	Noise Generation	0	0	0	0	0
3/26/2007	Contractor, Regional	Other	Odor Generation	0	0	0	0	0
3/26/2007	Contractor, Regional	Water Quality	Source of contamination	0	0	0	0	0
3/26/2007	Contractor, Trane	Air Quality	Point Source of contaminiates	1	0	0	1	1
3/26/2007	Contractor, Trane	Other	Noise Generation	1	6	0	1	1
3/26/2007	Contractor, Trane	Other	Odor Generation	1	0	0	1	1
3/26/2007	Contractor, Weed Control	Land Quality	Kill vegetation and cause erosion	1	6	1	1	2
3/26/2007	Contractor, Weed Control	Other	Noise Generation	1	0	0	6	5
3/26/2007	Contractor, Weed Control	Other	Odor Generation	1	0	0	6	5
3/26/2007	Contractor, Weed Control	Water Quality	Effect Acute and Chronic testing	10	0	1	1	1
3/26/2007	Contractor, Weed Control	Water Quality	Effect Stormwater Sample	1	0	0	1	1
3/26/2007	Cooling Tower Operations	Air Quality	Tower Plume	1	0	0	1	1
3/26/2007	Cooling Tower Operations	Consumption	Water Usage	6	0	1	3	1

Place the copied cell over the into the database spread sheet, this is done by highlighting the numbers and (YES/NO) from top to bottom then paste. Once this is done close the spreadsheet by the small black x or File then Close. The Review is to be checked off on the C-06 checklist under media Aspect and Impact.

4.0 Roles and Responsibilities

4.11.2 This is the responsibility of the Site Environmental Representative or their designee to present and update the Aspects and Impacts.

5.0 Attachments

5.1 Original worksheets evaluated in 2003
5.2 Evaluation Work Sheet
5.3 Total Impact Rating Form
5.4 Updated/New Impact sheets

6.0 **Distribution:**

6.1 In the computer under Z:\Public\EMS\Procedures\A-13 Environmental Aspects and Impacts.doc

6.2 In the Procedure books in the control room

6.3 Tab 3 of the EMS Manual

7.0 **Revision/Review History**

Revision/Review	Editor	Edit Date
R-01	Chuck Barnes	3/31/06
R-02	Chuck Barnes	7/20/06
Review	Chuck Barnes	3/4/07
Review	Chuck Barnes	3/14/08
Review	Chuck Barnes	7/16/09
Review	Chuck Barnes	9/6/2010
Review & Update	Chuck Barnes	2/25/2011

As of 2010 Procedure and Checklist Reviews will be conducted every other calendar year; the even numbered procedures/checklist on the even years and the others on the odd years. Updates and Revisions should be done soon after the change has been made.

Aspects-and-Impacts

For Year: 2011

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Area of the Plant / Category / Stages	Date Evaluated / Significant	Frequency: Use	Frequency: Incident	Severity: Human	Severity: Animal/Plant/ Water Way	Severity: Public	Impact Rating	Remarks:
Boiler Operations / Air Quality / Visual Generation	2/15/2011	8	2	2	1	1	40	
	Significant if Impact Rating is > 40 ☐							
Boiler Operations / Air Quality / Point Source Air Emissions	2/15/2011	10	5	1	1	2	60	
	Significant if Impact Rating is > 40 ☑							
Boiler Operations / Air Quality / Fugitive Air Emissions	2/15/2011	5	5	0	0	1	10	
	Significant if Impact Rating is > 40 ☐							
Boiler Operations / Consumption / Diesel Fuel Use	2/15/2011	10	0	1	1	1	30	
	Significant if Impact Rating is > 40 ☐							
Boiler Operations / Consumption / Natural Gas Use	2/15/2011	1	1	0	1	0	2	
	Significant if Impact Rating is > 40 ☐							

Area of the Plant / Category / Stages	Date Evaluated / Significant	Frequency: Use	Frequency: Incident	Severity: Human	Severity: Animal/Plant/ Water Way	Severity: Public	Impact Rating	Remarks:
Boiler Operations		Frequency			Severity			
Consumption	2/15/2011	6	0	1	1	1	18	
Water Use	Significant if Impact Rating is > 40 ☐							
Boiler Operations		Frequency			Severity			
Hearing Loss	2/15/2011	6	0	0	0	1	6	
Noise Generation	Significant if Impact Rating is > 40 ☐							
Boiler Operations		Frequency			Severity			
Land Quality	2/15/2011	6	6	1	1	1	36	
Fugitive Air Emissions	Significant if Impact Rating is > 40 ☐							
Boiler Operations		Frequency			Severity			
Nuisance	2/15/2011	4	0	1	1	1	12	
Odor Generation	Significant if Impact Rating is > 40 ☐							
Boiler Operations		Frequency			Severity			
Water Quality	2/15/2011	8	1	1	1	1	27	
Boiler Blowdown	Significant if Impact Rating is > 40 ☐							
Chemical Handling and Storage		Frequency			Severity			
Land Quality	2/15/2011	8	6	2	1	1	56	
Chemical Spill	Significant if Impact Rating is > 40 ☑							

Area of the Plant / Category / Stages	Date Evaluated / Significant	Frequency: Use	Frequency: Incident	Severity: Human	Severity: Animal/Plant/ Water Way	Severity: Public	Impact Rating	Remarks:
Chemical Handling and Storage		Frequency			Severity			
Personnel Hazard	2/15/2011	8	1	1	1	1	27	
Chemical Hazard to personnel	Significant if Impact Rating is > 40 ☐							
Chemical Handling and Storage		Frequency			Severity			
Water Quality	2/15/2011	10	2	1	1	2	48	
Chemical Spill	Significant if Impact Rating is > 40 ☑							
Contractor, Gardening		Frequency			Severity			
Other	2/15/2011	1	0	0	6	5	11	
Odor Generation	Significant if Impact Rating is > 40 ☐							
Contractor, Gardening		Frequency			Severity			
Other	2/15/2011	10	1	0	2	2	44	
Noise Generation	Significant if Impact Rating is > 40 ☐							
Contractor, Gardening		Frequency			Severity			
Water Quality	2/15/2011	1	0	1	1	2	4	
Effect Stormwater Sample	Significant if Impact Rating is > 40 ☐							
Contractor, Gardening		Frequency			Severity			
Water Quality	2/15/2011	1	0	1	1	2	4	
Effect Acute and Chronic testing	Significant if Impact Rating is > 40 ☐							

Area of the Plant / Category / Stages	Date Evaluated / Significant	Frequency: Use	Frequency: Incident	Severity: Human	Severity: Animal/Plant/ Water Way	Severity: Public	Impact Rating	Remarks:
Contractor, Regional		Frequency		Severity				
Air Quality	2/15/2011	1	6	1	1	2	28	
Point Source VOC	Significant if Impact Rating is > 40 ☐							
Contractor, Regional		Frequency		Severity				
Land Quality	2/15/2011	1	0	0	6	5	11	
Soil removal in case of spill	Significant if Impact Rating is > 40 ☐							
Contractor, Regional		Frequency		Severity				
Other	2/15/2011	0	0	0	0	0	0	
Odor Generation	Significant if Impact Rating is > 40 ☐							
Contractor, Regional		Frequency		Severity				
Other	2/15/2011	0	0	0	0	0	0	
Noise Generation	Significant if Impact Rating is > 40 ☐							
Contractor, Regional		Frequency		Severity				
Water Quality	2/15/2011	0	0	0	0	0	0	
Source of contamination	Significant if Impact Rating is > 40 ☐							
Contractor, Trane		Frequency		Severity				
Air Quality	2/15/2011	1	0	0	1	1	2	
Point Source of contaminiates	Significant if Impact Rating is > 40 ☐							

Area of the Plant / Category / Stages	Date Evaluated / Significant	Frequency: Use	Frequency: Incident	Severity: Human	Severity: Animal/Plant/ Water Way	Severity: Public	Impact Rating	Remarks:
Contractor, Trane		Frequency			Severity			
Other	2/15/2011	1 +	0) *	(0 +	1 +	1) =	2	
Odor Generation	Significant if Impact Rating is > 40 ☐							
Contractor, Trane		Frequency			Severity			
Other	2/15/2011	1 +	6) *	(0 +	1 +	1) =	14	
Noise Generation	Significant if Impact Rating is > 40 ☐							
Contractor, Weed Control		Frequency			Severity			
Land Quality	2/15/2011	1 +	6) *	(1 +	1 +	2) =	28	
Kill vegetation and cause erosion	Significant if Impact Rating is > 40 ☐							
Contractor, Weed Control		Frequency			Severity			
Other	2/15/2011	1 +	0) *	(0 +	6 +	5) =	11	
Noise Generation	Significant if Impact Rating is > 40 ☐							
Contractor, Weed Control		Frequency			Severity			
Other	2/15/2011	1 +	0) *	(0 +	6 +	5) =	11	
Odor Generation	Significant if Impact Rating is > 40 ☐							
Contractor, Weed Control		Frequency			Severity			
Water Quality	2/15/2011	10 +	0) *	(1 +	1 +	1) =	30	
Effect Acute and Chronic testing	Significant if Impact Rating is > 40 ☐							

Area of the Plant / Category / Stages	Date Evaluated / Significant	Frequency: Use	Frequency: Incident	Severity: Human	Severity: Animal/Plant/ Water Way	Severity: Public	Impact Rating	Remarks:
Contractor, Weed Control		Frequency			Severity			
Water Quality	2/15/2011	1	0	0	1	1	2	
Effect Stormwater Sample	Significant if Impact Rating is > 40 ☐							
Cooling Tower Operations		Frequency			Severity			
Air Quality	2/15/2011	1	0	0	1	1	2	
Tower Plume	Significant if Impact Rating is > 40 ☐							
Cooling Tower Operations		Frequency			Severity			
Consumption	2/15/2011	6	0	1	3	1	30	
Water Usage	Significant if Impact Rating is > 40 ☐							
Cooling Tower Operations		Frequency			Severity			
Hearing Loss	2/15/2011	0	6	2	1	1	24	
Noise Generation	Significant if Impact Rating is > 40 ☐							
Cooling Tower Operations		Frequency			Severity			
Land Quality	2/15/2011	8	6	2	1	2	70	
Tower Water Bypass	Significant if Impact Rating is > 40 ☑							
Cooling Tower Operations		Frequency			Severity			
Nuisance	2/15/2011	0	6	1	1	1	18	
Odor Generation	Significant if Impact Rating is > 40 ☐							

Area of the Plant / Category / Stages	Date Evaluated / Significant	Frequency: Use	Frequency: Incident	Severity: Human	Severity: Animal/Plant/ Water Way	Severity: Public	Impact Rating	Remarks:
Cooling Tower Operations		Frequency			Severity			
Visual Nuisance	2/15/2011	9	0	0	0	1	9	
Tower Plume (Nuisance)	Significant if Impact Rating is > 40 ☐							
Cooling Tower Operations		Frequency			Severity			
Water Quality	2/15/2011	9	0	0	0	1	9	
Tower Blowdown	Significant if Impact Rating is > 40 ☐							
Cooling Tower Operations		Frequency			Severity			
Water Quality	2/15/2011	9	0	0	2	0	18	
Tower Water Bypass	Significant if Impact Rating is > 40 ☐							
Diesels		Frequency			Severity			
Air Quality	2/15/2011	0	6	0	1	1	12	
Point Source Air Emissions	Significant if Impact Rating is > 40 ☐							
Diesels		Frequency			Severity			
Consumption	2/15/2011	8	6	2	1	1	56	
Diesel Fuel Use	Significant if Impact Rating is > 40 ☑							
Diesels		Frequency			Severity			
Hearing loss	2/15/2011	4	2	1	1	1	18	
Noise Generation	Significant if Impact Rating is > 40 ☐							

Area of the Plant / Category / Stages	Date Evaluated / Significant	Frequency: Use	Frequency: Incident	Severity: Human	Severity: Animal/Plant/ Water Way	Severity: Public	Impact Rating	Remarks:
Diesels		Frequency			Severity			
Nuisance	2/15/2011	10	0	1	1	1	30	
Odor Generation	Significant if Impact Rating is > 40 ☐							
Distribution Piping		Frequency			Severity			
Burn Hazard	2/15/2011	1	0	0	1	1	2	
Temperature Hazard	Significant if Impact Rating is > 40 ☐							
Distribution Piping		Frequency			Severity			
Land Quality	2/15/2011	1	0	0	1	1	2	
Spill steam Chemicals	Significant if Impact Rating is > 40 ☐							
Distribution Piping		Frequency			Severity			
Water Quality	2/15/2011	8	0	2	2	2	48	
Spill steam Chemicals	Significant if Impact Rating is > 40 ☑							
Energy Conservation		Frequency			Severity			
Consumption	2/15/2011	3	0	2	1	2	15	
Diesel Fuel Use	Significant if Impact Rating is > 40 ☐							
Energy Conservation		Frequency			Severity			ISO 5001
Consumption	2/15/2011	9	0	2	1	2	45	
Natural Gas Use	Significant if Impact Rating is > 40 ☑							

Area of the Plant / Category / Stages	Date Evaluated / Significant	Frequency: Use	Frequency: Incident	Severity: Human	Severity: Animal/Plant/ Water Way	Severity: Public	Impact Rating	Remarks:
Energy Conservation / Consumption / Water Use	2/15/2011 Significant if Impact Rating is > 40 ☑	9	0	2	1	2	45	ISO 5001
Energy Conservation / Consumption / Electrical Use	2/15/2011 Significant if Impact Rating is > 40 ☑	9	0	2	1	2	45	ISO 5001
Energy Conservation / Consumption / Chemical Use	2/15/2011 Significant if Impact Rating is > 40 ☐	4	0	2	1	2	20	
Entire Plant / Waste Management / Quanty of Hazardous Waste	2/15/2011 Significant if Impact Rating is > 40 ☐	2	0	1	1	2	8	Hazardous Waste has been reduced to a low frequency. It is an excepting to have hazardous waste.
Entire Plant / Waste Management / Normal Daily Waste	2/15/2011 Significant if Impact Rating is > 40 ☑	10	8	1	3	2	108	Recycling Efforts are increasing. Reduction efforts are in place, such as two sided printing. Reuse of File folders, boxes, shiping containers, etc.
Fuel Handling & Storage / Air Quality / Point Source Air Emissions	2/15/2011 Significant if Impact Rating is > 40 ☐	9	0	0	0	1	9	

Area of the Plant / Category / Stages	Date Evaluated / Significant	Frequency: Use	Frequency: Incident	Severity: Human	Severity: Animal/Plant/ Water Way	Severity: Public	Impact Rating	Remarks:
Fuel Handling & Storage		Frequency			Severity			
Consumption	2/15/2011	1	0	1	2	1	4	
Reduction of Natural Resource	Significant if Impact Rating is > 40 ☐							
Fuel Handling & Storage		Frequency			Severity			
Hearing Loss	2/15/2011	8	6	1	1	1	42	
Noise Generation	Significant if Impact Rating is > 40 ☐							
Fuel Handling & Storage		Frequency			Severity			
Land Quality	2/15/2011	1	0	1	2	1	4	
Oil Spill	Significant if Impact Rating is > 40 ☐							
Fuel Handling & Storage		Frequency			Severity			
Loss of Property	2/15/2011	10	0	0	2	0	20	
Fire Hazard	Significant if Impact Rating is > 40 ☐							
Fuel Handling & Storage		Frequency			Severity			
Nuisance	2/15/2011	8	0	1	1	1	24	
Odor Generation	Significant if Impact Rating is > 40 ☐							
Fuel Handling & Storage		Frequency			Severity			
Water Quality	2/15/2011	3	6	1	1	1	27	
Oil Spill bypassing Containment	Significant if Impact Rating is > 40 ☐							

Area of the Plant / Category / Stages	Date Evaluated / Significant	Frequency: Use	Frequency: Incident	Severity: Human	Severity: Animal/Plant/ Water Way	Severity: Public	Impact Rating	Remarks:
Gas Compressor / Air Quality / Point Source Air Emissions	2/15/2011 / Significant if Impact Rating is > 40 ☐	1	0	1	4	3	8	Gas Compressor has been decommissioned and does not run.
Gas Compressor / Hearing loss / Noise Generation	2/15/2011 / Significant if Impact Rating is > 40 ☐	0	0	0	2	0	0	Gas Compressor has been decommissioned and does not run.
Gas Compressor / Nuisance / Odor Generation	2/15/2011 / Significant if Impact Rating is > 40 ☐	0	0	1	2	0	0	Gas Compressor has been decommissioned and does not run.
GHG Reduction / Air Quality / Air Quality	2/15/2011 / Significant if Impact Rating is > 40 ☑	9	0	2	2	2	54	
Hazardous Waste Handling & Storage / Land Quality / Waste Spills	2/15/2011 / Significant if Impact Rating is > 40 ☑	10	6	1	1	1	48	
Hazardous Waste Handling & Storage / Nuisance / Odor Generation	2/15/2011 / Significant if Impact Rating is > 40 ☐	1	0	1	1	1	3	

Area of the Plant Category Stages	Date Evaluated Significant	Frequency Use	Incident	Human	Severity Animal/Plant/ Water Way	Public	Impact Rating	Remarks:
Hazardous Waste Handling & Storage Water Quality Waste Spills	2/15/2011 Significant if Impact Rating is > 40 ☐	Frequency (10 +	2) *	(1	Severity + 1 +	1) =	36	
Lubercating Oil Handling & Storage Loss of Property Fire Hazard	2/15/2011 Significant if Impact Rating is > 40 ☐	Frequency (1 +	6) *	(1	Severity + 1 +	2) =	28	
Lubercating Oil Handling & Storage Water Quality Oil Spill	2/15/2011 Significant if Impact Rating is > 40 ☐	Frequency (1 +	0) *	(0	Severity + 6 +	5) =	11	
Lubercating Oil Handling & Storage Water Quality Oil Spill	2/15/2011 Significant if Impact Rating is > 40 ☐	Frequency (1 +	0) *	(0	Severity + 6 +	5) =	11	
Oil/Water Separator Water Quality Point Source of water Emissions	2/15/2011 Significant if Impact Rating is > 40 ☐	Frequency (10 +	0) *	(1	Severity + 1 +	1) =	30	
Solid Waste Handling & Storage Land Quality Waste Spills	2/15/2011 Significant if Impact Rating is > 40 ☐	Frequency (1 +	0) *	(0	Severity + 1 +	1) =	2	

Area of the Plant / Category / Stages	Date Evaluated / Significant	Frequency: Use	Frequency: Incident		Severity: Human	Severity: Animal/Plant/ Water Way	Severity: Public		Impact Rating	Remarks:
Solid Waste Handling & Storage		Frequency				Severity				
Water Quality	2/15/2011	1	+ 0	*	0	+ 1	+ 1	=	2	
Waste Spills	Significant if Impact Rating is > 40 ☐									
State Environmental Goals		Frequency				Severity				
Air Quality	2/15/2011	8	+ 0	*	2	+ 2	+ 2	=	48	
Air Quality	Significant if Impact Rating is > 40 ☑									
State Environmental Goals		Frequency				Severity				With only 6 acers
Land Quality	2/15/2011	1	+ 0	*	0	+ 1	+ 0	=	1	
Land Quality	Significant if Impact Rating is > 40 ☐									
State Environmental Goals		Frequency				Severity				
Water Quality	2/15/2011	8	+ 0	*	2	+ 2	+ 2	=	48	
Water Quality	Significant if Impact Rating is > 40 ☑									
Stormwater Run-Off		Frequency				Severity				
Water Quality	2/15/2011	6	+ 0	*	1	+ 3	+ 1	=	30	
Non-Point Source of water Emissions	Significant if Impact Rating is > 40 ☐									
Turbine Operations Combined Cycle		Frequency				Severity				
Air Quality	2/15/2011	0	+ 6	*	2	+ 1	+ 1	=	24	
Fugitive Air Emissions	Significant if Impact Rating is > 40 ☐									

Area of the Plant Category Stages	Date Evaluated Significant	Frequency Use	Incident		Severity Human	Animal/Plant/ Water Way	Public		Impact Rating	Remarks:
Turbine Operations Combined Cycle Air Quality Visual Generation	2/15/2011 Significant if Impact Rating is > 40 ☐	Frequency (0	+ 6)	*	Severity (1	+ 1	+ 1)	=	18	
Turbine Operations Combined Cycle Air Quality Point Source Air Emissions	2/15/2011 Significant if Impact Rating is > 40 ☑	Frequency (8	+ 6)	*	Severity (2	+ 1	+ 2)	=	70	
Turbine Operations Combined Cycle Consumption Water Use	2/15/2011 Significant if Impact Rating is > 40 ☐	Frequency (9	+ 0)	*	Severity (0	+ 2	+ 0)	=	18	
Turbine Operations Combined Cycle Consumption Diesel Fuel Use	2/15/2011 Significant if Impact Rating is > 40 ☐	Frequency (9	+ 0)	*	Severity (0	+ 0	+ 1)	=	9	
Turbine Operations Combined Cycle Consumption Natural Gas Use	2/15/2011 Significant if Impact Rating is > 40 ☐	Frequency (9	+ 0)	*	Severity (0	+ 0	+ 1)	=	9	
Turbine Operations Combined Cycle Hearing Loss Noise Generation	2/15/2011 Significant if Impact Rating is > 40 ☑	Frequency (8	+ 6)	*	Severity (2	+ 1	+ 1)	=	56	

Area of the Plant / Category / Stages	Date Evaluated / Significant	Frequency: Use	Frequency: Incident	Severity: Human	Severity: Animal/Plant/ Water Way	Severity: Public	Impact Rating	Remarks:
Turbine Operations Combined Cycle		Frequency		Severity				
Land Quality	2/15/2011	0	6	0	1	1	12	
Fugitive Air Emissions	Significant if Impact Rating is > 40 ☐							
Turbine Operations Combined Cycle		Frequency		Severity				
Nuisance	2/15/2011	4	2	1	1	1	18	
Odor Generation	Significant if Impact Rating is > 40 ☐							
Turbine Operations Combined Cycle		Frequency		Severity				
Water Quality	2/15/2011	10	0	1	1	1	30	
HRSG Blowdown	Significant if Impact Rating is > 40 ☐							
Universal Waste		Frequency		Severity				
Land Quality	2/15/2011	1	1	0	1	2	6	
Waste Spills	Significant if Impact Rating is > 40 ☐							
Universal Waste		Frequency		Severity				
Water Quality	2/15/2011	1	0	0	1	1	2	
Waste Spills	Significant if Impact Rating is > 40 ☐							
Vehicle and Equipment Maintenance		Frequency		Severity				
Air Quality	2/15/2011	8	0	2	2	2	48	
Point Source Air Emissions	Significant if Impact Rating is > 40 ☑							

Area of the Plant Category Stages	Date Evaluated Significant	Frequency Use	Frequency Incident	Severity Human	Severity Animal/Plant/ Water Way	Severity Public	Impact Rating	Remarks:
Vehicle and Equipment Maintenance Consumption Fuel use	2/15/2011 Significant if Impact Rating is > 40 ☐	Frequency (9	+ 0) *	Severity (0	+ 0	+ 1) =	9	
Vehicle and Equipment Maintenance Hearing Loss Noise Generation	2/15/2011 Significant if Impact Rating is > 40 ☐	Frequency (8	+ 6) *	Severity (1	+ 1	+ 1) =	42	
Vehicle and Equipment Maintenance Land Quality Lube or Fuel Oil Spill	2/15/2011 Significant if Impact Rating is > 40 ☐	Frequency (1	+ 0) *	Severity (1	+ 2	+ 1) =	4	
Vehicle and Equipment Maintenance Water Quality Lube or Fuel Oil Spill	2/15/2011 Significant if Impact Rating is > 40 ☐	Frequency (1	+ 0) *	Severity (1	+ 2	+ 1) =	4	
Wastewater Outfalls Affect on Water Life Forms Temperature Hazard	2/15/2011 Significant if Impact Rating is > 40 ☐	Frequency (8	+ 0) *	Severity (1	+ 1	+ 1) =	24	
Wastewater Outfalls Consumption Water Use	2/15/2011 Significant if Impact Rating is > 40 ☐	Frequency (10	+ 0) *	Severity (0	+ 2	+ 0) =	20	

Area of the Plant / Category / Stages	Date Evaluated / Significant	Frequency: Use	Frequency: Incident	Human	Severity: Animal/Plant/ Water Way	Public	Impact Rating	Remarks:
Wastewater Outfalls		Frequency			Severity			
Loss of property value	2/15/2011	3	6	1	1	1	27	
Visual Generation	Significant if Impact Rating is > 40 ☐							
Wastewater Outfalls		Frequency			Severity			
Water Quality	2/15/2011	10	0	1	4	3	80	
Point Source of water Emissions	Significant if Impact Rating is > 40 ☑							
Water Treatment Plant		Frequency			Severity			
Consumption	2/15/2011	10	0	0	2	0	20	
Water Use	Significant if Impact Rating is > 40 ☐							
Water Treatment Plant		Frequency			Severity			
Hearing Loss	2/15/2011	10	6	1	1	1	48	
Noise Generation	Significant if Impact Rating is > 40 ☑							
Water Treatment Plant		Frequency			Severity			
Nuisance	2/15/2011	1	0	1	1	1	3	
Odor Generation	Significant if Impact Rating is > 40 ☐							
Water Treatment Plant		Frequency			Severity			
Personnel Hazard	2/15/2011	10	1	1	1	1	33	
Chemical Burn Hazard	Significant if Impact Rating is > 40 ☐							

Area of the Plant Category Stages	Date Evaluated Significant	Frequency Use	Incident		Severity Human	Animal/Plant/ Water Way	Public		Impact Rating	Remarks:
Water Treatment Plant		Frequency				Severity				
Water Quality	2/15/2011	(10	+ 2)	*	(1	+ 1	+ 1)	=	36	
Water Bypass	Significant if Impact Rating is > 40 ☐									