

**FACT SHEET STATEMENT OF BASIS (FSSOB)
LAKE SIDE POWER PLANT PERMIT
UPDES PERMIT NUMBER: UT0025623
MAJOR INDUSTRIAL**

FACILITY CONTACTS

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Facility Name: Lake Side Power Plant
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Lake Side Power Plant
1825 North Pioneer Lane
Vineyard, UT 84042

Mailing Address: Lake Side Power Plant
1825 North Pioneer Lane
Vineyard, UT 84042

DESCRIPTION OF FACILITY

Lake Side Power Plant (Lake Side) is located in Vineyard, Utah at latitude 40°19'46" and longitude 111°45'17". LSPP's Standard Industrial Classification (SIC) code is 4911, and the North American Industry Classification System (NAICS) code is 221111 for Steam Electric Power Generation.

Lake Side was completed in 2007 and began discharging in August 2007. The facility has an electric output capacity of 565 MW. The facility utilizes 2 gas-fired combustion turbines with 2 heat recovery steam generators and a steam turbine operating in a combined-cycle mode.

The 2005 permit wasteload allocation (WLA) included an $IC_{25} > 19\%$, but the value was not included in the permit. The 2009 permit WLA includes an $IC_{25} > 38\%$, which was included in the permit in accordance with current EPA guidance. IC_{25} is the inhibition concentration of toxicant (given in % effluent) that would cause a 25% reduction in mean young per female, or a 25% reduction in overall growth for the test population.

In the 2005 permit, Lake Side was required to sample for ammonia, and had an effluent limit of 12.7 mg/l as a monthly average and 50.5 mg/l as a maximum value. There was no indication of an ammonia issue. The limit and monitoring for ammonia was then eliminated from the permit.

Lake Side decided to relocate the outfall from the facility during the 2009 permit cycle. This change allowed the discharge of effluent to happen on the cold side of the cooling loop rather than the hot side. They also added some de-chlorination treatment for the discharge to maintain compliance with the lower residual chlorine limit. The facility also planned for expansion during the 2009 permit cycle. This expansion increased the flow from the facility. The increased flow would have required an additional outfall, but was combined into the relocated outfall. The relocated outfall was identified as Outfall 002. Outfall 002 was completed and activated in June 2013. At the same time Outfall 001 was deactivated.

The changes proposed would result in three different sequential configurations for the facility during this permit cycle. The existing outfall (001) and flow of 2.0 MGD, the intermediate setup of the new outfall (002) and flow limit of 2.0 MGD, and the final configuration of the new outfall and seasonal flow limits listed in the table below. To manage the changes in flow and outfall locations, as well as streamline the permitting process, the 2009 permit and FSSOB included limits and provisions for all three configurations.

The 2005 permit, limits and WLA were renewed for Outfall 001. Within two years of issuing the 2009 permit, the new outfall would be operational, and the limits for that outfall would be the intermediate limits developed in the new WLA. At least sixty days before the new outfall was to become active, Lake Side was to notify the Director in writing that the facility is ready to change out falls and identify a date for the changeover. From the day the change was made, the Lake Side discharge would need to comply with the intermediate limits. To facilitate this process, the change in limits did not require the re-public notice of the permit and FSSOB.

In 2014 PacifiCorp hoped to have completed expansion of Lake Side and be ready to bring the whole facility online, at which time the effluent limits would automatically change over to the final limits as developed in the final WLA. At least sixty days before the new facility was to become operational, Lake Side was to notify the Director in writing that the facility was ready to increase the discharge from the outfall and identify a date for the startup to commence. From the day the change is made, the Lake Side discharge would need to comply with the final effluent limits.

The increase in flow and relocation of the outfall would result in effluent loading changes. As a result, Lake Side developed a Level II ADR for the discharge at the final limit and conditions. The ADR was public noticed and no comments were received. The Division of Water Quality concurred with the ADR and it was included as an addendum to the 2009 FSSOB for this permit.

The WLA's that were run for the 2010 renewal permit indicated changes in the limits for temperature, total dissolved solids, copper, chromium VI, and total residual chlorine. For some parameters, the limits resulted in seasonal limits. The existing, intermediate, and final limits are indicated in the table below.

Flow Limit, MGD	Existing	Intermediate	Final
Summer (Jul-Sept)	2	2	2.9
Fall (Oct-Dec)	2	2	2.3
Winter (Jan-Mar)	2	2	2.2
Spring (Apr-Jun)	2	2	2.7
Temperature °F	Existing	Intermediate	Final
Summer (Jul-Sept)	104.3	87.2	81.8
Fall (Oct-Dec)	89.9	87	82.9
Winter (Jan-Mar)	75.5	87.7	84.4
Spring (Apr-Jun)	89.9	104.5	93.1
Metals mg/L	Existing	Intermediate	Final
Iron, mg/L	1	1	1
Total Chromium, mg/L	0.2	0.2	0.2
Chromium VI, mg/L	0.04	0.022	0.022
Total Zinc, mg/L	0.6	0.6	0.6
Copper, Mass Loading	Existing	Intermediate	Final
Year (Jan-Dec), lbs/yr		432	
Summer (Jul-Sept), lbs/qtr			167
Fall (Oct-Dec), lbs/qtr			132
Winter (Jan-Mar), lbs/qtr			124
Spring (Apr-Jun), lbs/qtr			154
Copper, mg/L	Existing	Intermediate	Final
Year (Jan-Dec), mg/L	0.14	1	1
Total Residual Chlorine	Existing	Intermediate	Final
TRC, mg/L	0.06	0.03	
Summer (Jul-Sept)			0.03
Fall (Oct-Dec)			0.05
Winter (Jan-Mar)			0.06
Spring (Apr-Jun)			0.06

The copper limit for the facility was set on an annual mass loading with a concentration. The outfall 002 final mass limits were based upon the WLA concentration (0.075 mg/L) and seasonal flow limits as listed above. This calculated out to 167 lbs/Qtr for summer (Jul-Sept), 132 lbs/Qtr for fall (Oct-Dec), 124 lbs/Qtr for winter (Jan-Mar), 154 lbs/Qtr for spring (Apr-Jun) for copper. According to 40 CFR 423.15 there is still a required maximum concentration of 1.0 mg/L for copper. These limits were included in the 2009 renewal permit along with the mass loading limits.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

In May of 2013 PacifiCorp notified the Director that Outfall 002 was completed and that they wished to commence using it. They also indicate that they wished to switch to the seasonal flow limits associated with the final facility configuration. The change was granted in June 2013 and Lake Side commenced discharging from Outfall 002. Outfall 001 was deactivated and will no longer be included in the renewal permit and FSSOB.

The Division of Water Quality has worked to improve our reasonable potential analysis (RP) for the inclusion of limits for parameters in the permit by using an EPA provided model. As a result of the model, more parameters may be included in the renewal permit. An initial check for metals showed that the full model needed to be run on Selenium, Lead, and Mercury.

The results of the RP Model show that Selenium does not require further investigation, but Lead and Mercury do. However, the analytical results used for both metals were all non-detect. As a result, the model did not produce reliable results. To address this issue, the Division of Water Quality will require the facility to utilize a lower analysis detection level for those parameters, or provide justification to the Director's satisfaction that the analysis is not feasible.

DISCHARGE

DESCRIPTION OF DISCHARGE

The Lake Side Power Plant is a relatively new source and has a short discharge monitoring history. There have been no violations resulting in enforcement action by DWQ.

Plant water is obtained from wells. The water is used in the evaporative cooler, the demineralizer, the combustion turbine, the heat recovery steam generator, and the cooling tower. Waste streams from the evaporative cooler, the demineralizer, the combustion turbine, and the heat recovery steam generator are collected and reused in the cooling tower. Blow down from the cooling tower is discharged to Lindon Hollow Creek. The estimated flow is from 1 to 1.6 MGD. Sanitary flows will be discharged to Lindon City sewer system.

<u>Outfall</u>	<u>Description of Discharge Point</u>
002	Located at latitude 40°19'54.45" and longitude 111°45'47.85" The discharge is through a pipe to Lindon Hollow Creek which flows to Utah Lake.

RECEIVING WATERS AND STREAM CLASSIFICATION

The final discharge flows into Lindon Hollow Creek then flows to Utah Lake. The receiving stream the effluent discharges to has been classified as 2B, 3B & 4 (Lindon Hollow Creek) according to *Utah Administrative Code (UAC) R317-2-13*.

- | | |
|----------|--|
| Class 2B | -Protected for secondary contact recreation such as boating, wading, or similar uses. |
| Class 3B | -Protected for warm water species of game fish and other warm water aquatic life, including the necessary aquatic organisms in their food chain. |
| Class 4 | -Protected for agricultural uses including irrigation of crops and stock watering. |

BASIS FOR EFFLUENT LIMITATIONS

The total suspended solids (TSS) and pH limits are based on current Utah Secondary Treatment Standards, *UAC R317-1-3.2*. Oil and Grease is based on Best Professional Judgment (BPJ). The Iron, Copper, and Chromium limits are based on Best Conventional Pollutant Control Technology (NSPS) for a new source as found in the Code of Federal Regulations, 40 CFR 423.15. Finally, flow, temperature, total dissolved solids, Ammonia, Copper, Chromium VI, Zinc and Total Residual Chlorine (TRC), limits are based on a Wasteload Analysis (WLA attached).

The permittee is expected to be able to comply with these limitations. The Wasteload Analysis indicates that these limitations should be sufficiently protective of water quality, in order to meet State Water Quality Standards in the receiving waters.

The permit limitations for the discharge from Outfall 002 are:

P/N DRAFT

Parameter	Final Effluent Limitations				
	Monthly Average Maximum	Weekly Average Maximum	Minimum	Maximum	Maximum Mass Loading
Flow MGD					
Sum (Jul-Sept)	-	-	-	2.9	-
Fall (Oct-Dec)	-	-	-	2.3	-
Winter (Jan-Mar)	-	-	-	2.2	-
Spr (Apr-Jun)	-	-	-	2.7	-
DO, mg/L	-	-	-	5.0	-
TSS, mg/L	25	35	-	-	-
TDS, mg/L					
Sum (Jul-Sept)	-	-	-	2371	-
Fall (Oct-Dec)	-	-	-	2371	-
Winter (Jan-Mar)	-	-	-	2363	-
Spr (Apr-Jun)	-	-	-	2371	-
pH, Standard Units	-	-	6.5	9	-
Iron, mg/L	-	-	-	1	-
Total Chromium, mg/L	-	-	-	0.2	-
Chromium VI, mg/L	-	-	-	0.022	-
Total Zinc, mg/L	-	-	-	0.6	-
Copper, mg/L	-	-	-	1	-
Copper, lbs./Qtr.					
Sum (Jul-Sept)	-	-	-	-	167
Fall (Oct-Dec)	-	-	-	-	132
Winter (Jan-Mar)	-	-	-	-	124
Spr (Apr-Jun)	-	-	-	-	154
TRC, mg/L					
Sum (Jul-Sept)	-	-	-	0.03	-
Fall (Oct-Dec)	-	-	-	0.05	-
Winter (Jan-Mar)	-	-	-	0.06	-
Spr (Apr-Jun)	-	-	-	0.06	-
Oil & Grease, mg/L	-	-	-	10	-
WET Chronic Biomonitoring	-	-	-	IC25 > 38% effluent	-
Temperature °F					
Sum (Jul-Sept)	-	-	-	81.8	-
Fall (Oct-Dec)	-	-	-	82.9	-
Winter (Jan-Mar)	-	-	-	84.4	-
Spr (Apr-Jun)	-	-	-	93.1	-

NA – Not Applicable.

*a The TRC limit developed in the WLA is a more stringent limit than that found in 40 CFR 423.15 and is considered more protective than limiting the times allowed for utilizing and discharging chlorine.

SELF-MONITORING AND REPORTING REQUIREMENTS

The permit will require reports to be submitted monthly and quarterly, as applicable, on Discharge Monitoring Report (DMR) forms due 28 days after the end of the monitoring period. Lab sheets for biomonitoring must be attached to the biomonitoring DMR.

Self-Monitoring & Reporting Requirements					
Parameter	Frequency	Sample Type	Units	MDL *d	
Total Flow	Continuous	Instantaneous	MGD	-	
Temperature, Effluent	2 x Week	Grab	°F	-	
TDS, Effluent			mg/L	-	
TSS, Effluent			mg/L	-	
DO, Effluent			mg/L	-	
pH, Effluent			SU	-	
TRC, Effluent *a			Daily	mg/L	-
Oil & Grease, Effluent *b			Monthly	mg/L	-
Total Phosphorus, Effluent *c	Monthly	mg/L	-		
Total Zinc, Effluent	Weekly	Grab	mg/L	0.67	
Total Chromium, Effluent			mg/L	0.6.	
Chromium VI			mg/L	0.022	
Iron, Effluent			mg/L	1	
Copper, Effluent	Weekly	mg/L	0.075		
WET, Chronic Biomonitoring Ceriodaphnia Dubia and Pimephales Promelas (fathead minnows)	Quarterly	Grab	Pass/Fail	-	
<u>METALS *d</u>			<u>MDL *d</u>		
Cyanide, Effluent	Quarterly	Grab	mg/L	0.0138	
Aluminum Effluent			mg/L	1	
Arsenic Effluent			mg/L	0.26	
Cadmium Effluent			mg/L	0.0018	
Lead Effluent			mg/L	0.04	
Mercury Effluent			mg/L	0.00003	
Nickel Effluent			mg/L	0.42	
Selenium Effluent			mg/L	0.009	
Silver Effluent			mg/L	0.067	

*a The TRC limit developed in the WLA is a more stringent limit than that found in 40 CFR 423.15 and is considered more protective than limiting the times allowed for utilizing and discharging chlorine.

*b Oil & Grease sampled when sheen is present or visible.

- *c Total Phosphorus is being sampled in conjunction with work being done on a TMDL for Utah Lake. Sampling occurred twice monthly for the first year of discharging, reporting the monthly average, and then the sampling dropped to monthly. Sampling will remain monthly until further notice. This sampling was included in an agreement with the Lake Side Power Plant facility team. There is no limit associated with Total Phosphorus for this facility at the present time.
- *d Metals samples should be analyzed using a method that meets MDL requirements. If a test method is not available the permittee must submit documentation to the Director regarding the method that will be used. The sample type (composite or grab) should be performed according to the methods requirements.

TMDL REQUIREMENTS

When completed, Lake Side Power Plant discharges wastewater into Utah Lake, which has been identified as impaired for total dissolved solids (TDS) and total phosphorus (TP) based on the 1998, 303(d) assessment process as defined in the Clean Water Act. As required under federal regulation a total maximum daily load (TMDL) will be developed for all impaired waters. The TMDL will focus on developing limitations for those parameters of concern (POC) that were identified during the 305(b) and 303(d) assessment process. POC's are parameters that are in violation of water quality standards or that contribute to impairment of a beneficial use (a major component of the water quality standards).

Currently, a TMDL evaluation is underway for the Utah Lake. If the results of the TMDL process establish effluent limits for any of the POC's, then it would be required by (40 CFR Part 130) to include these effluent limits in the UPDES permit. Therefore, it is strongly recommended that the facility staff participate in the TMDL development process. The staff at the Division of Water Quality will be responsible for scheduling and notifying appropriate facility personnel regarding TMDL meetings. Please contact your UPDES permit writer for information on scheduled TMDL meetings.

STORM WATER

STORMWATER REQUIREMENTS

The storm water requirements in the permit are based on the UPDES Multi-Sector General Permit for Storm Water Discharges for Industrial Activity, General Permit No. UTR000000 (MSGP).

Steam electric power generating facilities are required to perform analytical monitoring for total recoverable iron with a cut off concentration of 1.0 mg/L per the MSGP. This permit requires monitoring for total recoverable iron quarterly in the 2nd and 4th years of the permit cycle. The samples shall be representative of the runoff from the site and do not need to be taken where storm water leaves the facility confines. Monitoring locations can be designated in the interior of the site where there is the most potential for storm water to be contaminated. The analytical cut off concentration is not an enforceable effluent limitation. If the concentration for total recoverable iron is above the 1.0 mg/L concentration then the permit requires that the facility evaluate the storm water pollution prevention plan and make efforts to reduce the concentrations.

The storm water section in the permit also contains requirements for SWP3 Preparation, Discharge Certification, CWA Section 313, Visual Monitoring and Spill Prevention and Response.

PRETREATMENT REQUIREMENTS

Any process wastewater that the facility may discharge to the sanitary sewer, either as direct discharge or as a hauled waste, is subject to federal, state and local pretreatment regulations. Pursuant to section 307 of the Clean Water Act, the permittee shall comply with all applicable Federal General Pretreatment Regulations promulgated, found in 40 CFR section 403, the State Pretreatment Requirements found in *UAC R317-8-8*, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the waste.

BIOMONITORING REQUIREMENTS

As part of the nationwide effort to control toxics, biomonitoring requirements are being included in all major permits and in minor permits for facilities where effluent toxicity is an existing or potential concern. Authorization for requiring effluent biomonitoring is provided for in *UAC R317-8-4.2* and *R317-8-5.3*. *The Whole Effluent Toxicity (WET) Control Guidance Document*, February 15, 1991, outlines guidance to be used by Utah Division of Water Quality staff and by permittees for implementation of WET control through the UPDES discharge permit program.

Since the permittee is a major discharger, the renewal permit will again require whole effluent toxicity (WET) testing. Chronic quarterly biomonitoring will be again be required as described in the permit with no significant changes from the existing permit provisions. The only change to the biomonitoring provisions is the inclusion of WET limits as required to reflect the Waste Load Analysis (WLA). The previous WLA included an $IC_{25} > 19\%$, but the value was not included in the permit. The new WLA includes an $IC_{25} > 38\%$, which will be added in accordance with current EPA guidance. IC_{25} is the inhibition concentration of toxicant (given in % effluent) that would cause a 25% reduction in mean young per female, or a 25% reduction in overall growth for the test population.

During the permit cycle Lakeside failed several WET tests. Upon failure, they retested and failed again. At that time they followed the process set out in the permit and initiated a Toxicity Reduction Evaluation (TRE). During the next year they continued sampling and evaluating to determine if anything could be done to eliminate the Toxicity. Each time something was identified, and actions were taken, the next test would reveal something else.

PacifiCorp utilized national experts in their efforts to identify a possible source, and continued with the TRE until the WET test stopped indicating toxicity on a consistent basis. A final indication of the source was not identified during the testing

Bio-monitoring Results

Month	WET Test, 7 Day Chronic	Result
2009, Qtr 4	Ceriodaphnia Dubia	Pass
	Pimephales Promelas	Pass
2010, Qtr 1	Ceriodaphnia Dubia	Pass
	Pimephales Promelas	Pass
2010, Qtr 2	Ceriodaphnia Dubia	Pass
	Pimephales Promelas	Pass
2010, Qtr 3	Ceriodaphnia Dubia	Pass
	Pimephales Promelas	Pass
2010, Qtr 4	Ceriodaphnia Dubia	Pass
	Pimephales Promelas	Pass
2011, Qtr 1	Ceriodaphnia Dubia	Pass
	Pimephales Promelas	Pass
2011, Qtr 2	Ceriodaphnia Dubia	Pass
	Pimephales Promelas	Pass
2011, Qtr 3	Ceriodaphnia Dubia	Fail
	Pimephales Promelas	Pass
2011, Qtr 4	Ceriodaphnia Dubia	Fail
	Pimephales Promelas	Pass
2012, Qtr 1	Ceriodaphnia Dubia	Fail
	Pimephales Promelas	Pass
2012, Qtr 2	Ceriodaphnia Dubia	Fail
	Pimephales Promelas	Pass
2012, Qtr 3	Ceriodaphnia Dubia	Fail
	Pimephales Promelas	Pass
2012, Qtr 4	Ceriodaphnia Dubia	Fail
	Pimephales Promelas	Pass
2013, Qtr 1	Ceriodaphnia Dubia	Fail
	Pimephales Promelas	Pass
2013, Qtr 2	Ceriodaphnia Dubia	Fail
	Pimephales Promelas	Pass
2013, Qtr 3	Ceriodaphnia Dubia	Pass
	Pimephales Promelas	Pass
2013, Qtr 4	Ceriodaphnia Dubia	Fail
	Pimephales Promelas	Pass
2014, Qtr 1	Ceriodaphnia Dubia	Pass
	Pimephales Promelas	Pass
2014, Qtr 2	Ceriodaphnia Dubia	Pass
	Pimephales Promelas	Pass

During the renewal permit cycle the WET testing will continue with no changes. The WLA did indicate possible seasonal IC₂₅ % WET Limits. These are indicated in the table below. The limit included in the renewal permit is the same one as the previous permit and is more conservative than the seasonal limits

would be. In the event of a chronic test failure the seasonal values from the WLA will be used for evaluating the results of the test.

Seasonal Chronic WET Limits			
Season	Lake Side Flow	Stream Flow	Chronic WET IC25 % Eff.
Summer	4.456	7.4	38
Fall	3.558	13.1	21
Winter	3.403	15.1	18
Spring	4.177	18.7	18

PERMIT DURATION

It is recommended that this permit be effective for a duration of five (5) years.

Drafted by
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Michael George, Storm Water
Utah Division of Water Quality

ADDENDUM TO FSSOB

A public notice for the draft permit will be published in The Provo Daily Herald Month Date, 2014. The comment period will end on Month Date, 20154. Any comments received by that time will be considered and summarized below. During finalization of the Permit, certain dates, spelling edits and minor language corrections are made. Due to the nature of these changes, they are not considered major modifications and the permit is not required to be re-Public Noticed.

Outfall 002 Discharge Monitoring Results

Month	Flow	O&G	Phosphorus	pH		TSS, mg/L		TDS
	MGD	mg/L	mg/L	Min	Max	Ave	Max	mg/L
Limit=>	2.2	10		6.5	9	25	35	2361
Jun-11	0.43	0	1.56	7.04	8.27	4	4	658
Jul-11	1.4	0.05	0.74	7.02	8.44	4	4	1000
Aug-11	1.13	0	1.68	6.97	8.78	4.2	4.7	954
Sep-11	1.53	0	1.15	7.37	8.8	4.1	4.2	936
Oct-11	0.84	0	1.5	6.84	7.99	4.6	6.7	1040
Nov-11	0.91	0	1.21	7.13	8.14	4	4	828
Dec-11	0.92	0	1.35	7.53	8.42	4	4	1102
Jan-12	1.1	0	1.29	7.28	8.5	4.1	4.6	1042
Feb-12	1.07	NR	1.57	7.45	8.13	4.1	4.2	1022
Mar-12	1.03	0	1.15	7.2	8.12	4	4.1	914
Apr-12	1.08	0	0.83	7.57	8.3	4.8	7.4	1154
May-12	0.99	0	1.1	7.43	8.21	6.6	9.4	1210
Jun-12	1.66	0	1.61	7.02	7.84	5.1	8.5	852
Jul-12	1.7	0	1.6	6.72	7.65	4.1	4.3	861
Aug-12	1.42	0	1.8	7.03	8.59	4	4	826
Sep-12	1.17	0	1.79	6.91	7.47	4	4	864
Oct-12	1.2	0	2.07	6.99	7.74	4.4	5.6	786
Nov-12	1.31	0	1.8	7.19	7.89	4.6	5.6	954
Dec-12	1	0	1.61	7.29	7.8	7.1	10.2	914
Jan-13	1.15	0	1.51	7.28	8.09	4.3	5.1	634
Feb-13	1.21	0	0.94	7.08	7.82	4.1	4.3	660
Mar-13	1.23	0	1.12	7.23	7.75	4.1	4.3	750
Apr-13	1.11	0	1.46	7.26	8.26	4.5	4.9	728
May-13	0.97	0	1.42	7.54	8.15	5.2	9.1	774
Jun-13	0	0	0.12	7.2	8.64	4	4	714
Jul-13	1.27	0	1.8	7.27	8.49	4	4	982
Aug-13	1.37	0	1.71	6.81	8.97	4.1	4.5	1008
Sep-13	1.2	0	1.69	6.87	8.62	4.7	6.3	986
Oct-13	1.16	0	1.18	7.5	8.46	5.2	6.4	940
Nov-13	1.3	0	1.2	6.92	8.43	4	5.3	748
Dec-13	1.07	0	1.9	6.75	8.08	4.3	4.8	824
Jan-14	1.1	0	1.65	7.16	7.98	4	4.2	780
Feb-14	1.02	0	1.14	6.98	8.36	4.6	6.4	838
Mar-14	1.87	0	1.67	7.09	7.62	4	4	1288

Outfall 002 Discharge Monitoring Results

Month	Temp, F	TRC	Chromium	Copper	Zinc	Cr 6	Iron
	Deg. F	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Limit=>		0.03	0.2	1	0.6	0.022	1
Jun-11	69.8	0.042	0.01	0.05	0.05	0.02	0.05
Jul-11	77.6	0.054	0.01	0.05	0.13	0.02	0.13
Aug-11	77	0.041	0.01	0.05	0.05	0.02	0.3
Sep-11	73.5	0.013	0.01	0.069	0.05	0.02	0.29
Oct-11	69.6	0.022	0.01	0.05	0.05	0.02	0.38
Nov-11	69.7	0.02	0.01	0.05	0.05	0.02	0.076
Dec-11	68.7	0.011	0.01	0.05	0.05	0.02	0.13
Jan-12	68.9	0.023	0.01	0.05	0.05	0.02	0.2
Feb-12	70.8	0.01	0.01	0.05	0.05	0.02	0.23
Mar-12	67.5	0.02	0.01	0.05	0.05	0.02	0.18
Apr-12	69.1	0.02	0.01	0.05	0.05	0.02	0.15
May-12	72.7	0.03	0.01	0.05	0.05	0.02	0.59
Jun-12	74.2	0.05	0.01	0.05	0.05	0.02	0.29
Jul-12	72.4	0.05	0.01	0.05	0.05	0.02	0.13
Aug-12	70.2	0.04	0.01	0.05	0.05	0.01	0.075
Sep-12	72.6	0.03	0.01	0.05	0.05	0.01	0.14
Oct-12	65.4	0.05	0.01	0.05	0.05	0.01	0.13
Nov-12	72.9	0.03	0.01	0.05	0.05	0.01	0.27
Dec-12	66.2	0.04	0.01	0.05	0.05	0.01	0.21
Jan-13	68.9	0.037	0.01	0.05	0.05	0.01	0.25
Feb-13	67.8	0.024	0.01	0.05	0.05	0.01	0.084
Mar-13	65.8	0.01	0.01	0.05	0.05	0.01	0.2
Apr-13	68.8	0.016	0.01	0.05	0.05	0.01	0.27
May-13	68	0.01	0.01	0.05	0.05	0.01	0.22
Jun-13	NA	0.02	0.01	0.05	0.05	0.01	0.051
Jul-13	73.3	0.029	0.01	0.05	0.05	0.01	0.085
Aug-13	71.2	0.041	0.01	0.01	0.05	0.01	0.3
Sep-13	71.1	0.02	0.01	0.05	0.05	0.01	0.16
Oct-13	68.9	0.03	0.05	0.05	0.05	0.01	0.32
Nov-13	67.1	NR	ND	ND	ND	ND	0.13
Dec-13	69.5	0.028	0.01	0.05	0.05	ND	0.16
Jan-14	2.2	0.028	ND	ND	ND	ND	0.15
Feb-14	NA	0.017	0.01	0.01	0.05	0.01	0.17
Mar-14	2.2	0.014	ND	ND	ND	ND	0.38

Effluent metals and initial reasonable potential check.

Metal		Cyanide	Arsenic	Cadmium	Lead	Nickel	Silver	Aluminum	Selenium	Mercury
ARP Val	0.0401	0.2649	0.0149	0.2636	2.619	1	1.3666	0.0352	0.000397	
CRP Val	0.0138	0.502	0.0018	0.044	0.422	0.067	1	0.0096	0.000032	
2009	Win	ND	ND	ND	ND	ND	0.077	ND	ND	ND
	Spr	ND	ND	ND	ND	ND	0.053	ND	ND	ND
2010	Sum	ND	ND	ND	ND	ND	0.1	ND	ND	ND
	Fall	ND	0.05	ND	ND	ND	0.05	ND	ND	ND
	Win	ND	ND	ND	ND	ND	0.18	ND	ND	ND
	Spr	ND	ND	ND	ND	0.083	ND	ND	ND	ND
2011	Sum	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Fall	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Win	ND	ND	ND	ND	ND	0.16	ND	ND	ND
	Spr	ND	ND	ND	ND	ND	0.08	ND	ND	ND
2012	Sum	ND	ND	ND	ND	ND	0.07	ND	ND	ND
	Fall	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Win	ND	ND	ND	ND	ND	0.077	ND	ND	ND
	Spr	ND	ND	ND	ND	ND	0.12	ND	ND	ND
2013	Sum	ND	ND	ND	ND	ND	0.12	ND	ND	ND
	Fall	ND	ND	ND	ND	ND	0.055	ND	ND	ND
	Win	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Spr	ND	ND	ND	ND	ND	0.09	ND	ND	ND
2014	Sum	ND	ND	ND	ND	ND	0.12	ND	ND	ND
ND Value	0.005	0.05	0.0002	0.05	0.05	0.0005	0.05	0.005	0.0001	
Max	0.005	0.05	0.0002	0.05	0.083	0.0005	0.18	0.005	0.0001	
Run A RP?	No	No	No	No	No	No	No	No	No	No
Run C RP?	No	No	No	YES	No	No	No	YES	YES	YES

Metals, mg/L

Selenium RP Results.

RP Procedure Output		Effluent Data	
Facility Name:	Lake Side Power	#	
Permit Number:	0	1	ND
Outfall Number:	002	2	ND
Parameter	Selenium	3	ND
Distribution	Normal	4	ND
Data Units	mg/L	5	ND
Reporting Limit	0.005	6	ND
Significant Figures	2	7	ND
Confidence Interval	95	8	ND
		9	ND
Maximum Reported Effluent Conc.	0.005 mg/L	10	ND
Coefficient of Variation (CV)	0	11	ND
RP Multiplier	1	12	ND
Projected Maximum Effluent Conc. (MEC)	0.005 mg/L	13	ND
Facility Flow	4.486 0	14	ND
Acute Dilution Factor	0	15	ND
Acute Low Flow	7.4 0	16	ND
Background Pollutant Conc. (acute)	0.00106 mg/L	17	ND
Acute Receiving Water Conc. (RWCa)	0.0025 mg/L	18	ND
Acute Criterion	0.0352 mg/L	19	ND
Chronic Dilution Factor	1	20	0
Chronic Low Flow	7.4 0	21	0
Background Pollutant Conc. (chronic)	0.00106 mg/L	22	0
Chronic Receiving Water Conc. (RWCc)	0.005 0	23	0
Chronic Criterion	0.0096 mg/L	24	0
RP for Acute?	NO		
RP for Chronic?	NO		

Lead RP Results.

RP Procedure Output		Effluent Data	
Facility Name:	Lake Side Power	#	
Permit Number:	0	1	ND
Outfall Number:	002	2	ND
Parameter	Lead	3	ND
Distribution	Normal	4	ND
Data Units	mg/L	5	ND
Reporting Limit	0.05	6	ND
Significant Figures	2	7	ND
Confidence Interval	95	8	ND
		9	ND
Maximum Reported Effluent Conc.	0.05	10	ND
Coefficient of Variation (CV)	0	11	ND
RP Multiplier	1 mg/L	12	ND
Projected Maximum Effluent Conc. (MEC)	0.05 0	13	ND
Facility Flow	4.486	14	ND
Acute Dilution Factor	0 0	15	ND
Acute Low Flow	7.4 mg/L	16	ND
Background Pollutant Conc. (acute)	0.00053 mg/L	17	ND
Acute Receiving Water Conc. (RWC _a)	0.019 mg/L	18	ND
Acute Criterion	0.2636	19	ND
Chronic Dilution Factor	1 0	20	0
Chronic Low Flow	7.4 mg/L	21	0
Background Pollutant Conc. (chronic)	0.00053 0	22	0
Chronic Receiving Water Conc. (RWC _c)	0.05 mg/L	23	0
Chronic Criterion	0.044	24	0
RP for Acute?	NO		
RP for Chronic?	YES		

Mercury RP Results,

RP Procedure Output		Effluent Data	
Facility Name:	Lake Side Power	#	
Permit Number:	0	1	ND
Outfall Number:	002	2	ND
Parameter	Mercury	3	ND
Distribution	Normal	4	ND
Data Units	mg/L	5	ND
Reporting Limit	0.0001	6	ND
Significant Figures	2	7	ND
Confidence Interval	95	8	ND
		9	ND
Maximum Reported Effluent Conc.	0.0001 mg/L	10	ND
Coefficient of Variation (CV)	0	11	ND
RP Multiplier	1	12	ND
Projected Maximum Effluent Conc. (MEC)	0.0001 mg/L	13	ND
Facility Flow	4.486 0	14	ND
Acute Dilution Factor	0	15	ND
Acute Low Flow	7.4 0	16	ND
Background Pollutant Conc. (acute)	0.0000001 mg/L	17	ND
Acute Receiving Water Conc. (RWC _a)	0.000038 mg/L	18	ND
Acute Criterion	0.000397 mg/L	19	ND
Chronic Dilution Factor	1	20	0
Chronic Low Flow	7.4 0	21	0
Background Pollutant Conc. (chronic)	0.0000001 mg/L	22	0
Chronic Receiving Water Conc. (RWC _c)	0.0001 0	23	0
Chronic Criterion	0.000032 mg/L	24	0
RP for Acute?	NO		
RP for Chronic?	YES		

