pillsbury

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June 10, 2010

Mr. Vince Christian
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Re: Comments on Tentative Order No. R2-2010-XXXX, NPDES Permit No. CA0029106
GWF Power Systems, L. P. – East Third Street Plant (Site I)

Dear Mr. Christian:

These comments are submitted on behalf of our client GWF Power Systems, L.P., the owner and operator of the East Third Street Power Plant (Site I). It was GWF's hope that all issues relating to this permit, as well as to the companion permit for GWF's Nichols Road plant, could have been resolved before the draft permits were noticed for public comment. While many of GWF's concerns were addressed, others remain outstanding, as discussed below.

To assist you in your review and response to these comments, we have divided them into two sections, those which are substantive, and those which appear to reflect inadvertent errors. The statement in bold print appearing immediately after the numbered item is a brief statement of the permit provision or Fact Sheet section that is at issue.

A. MAJOR COMMENTS

1. Page 9, Discharge Prohibition III.C. re cooling tower maintenance chemicals and Fact Sheet (F-9,IV.A.3)

Chemicals used . . . shall not contain any detectable concentrations of priority pollutants.

GWF Comment:

Discharge Prohibition III.C. provides:

> Chemicals used for metal components cleaning, flushing, washdown, algae control, or corrosion and deposition inhibition shall not contain detectable concentrations of priority pollutants (listed in Attachment G, Table C).

The Fact Sheet (p. F-9, Item IV.A.3), paraphrases this prohibition as: "No use of chemicals containing heavy metals," citing to 40 CFR § 423.13(d)(1).

There are several problems with the above provisions. First, the Fact Sheet is inconsistent with the permit in two ways: (1) it appears to be more restrictive than the permit by barring any use of chemicals that contain (presumably) any heavy metals; and (2) it appears to be less restrictive than the permit by referring only to heavy metals, rather than all priority pollutants.

Further, the Fact Sheet states that Prohibition III.C. is based on 40 CFR § 423.13(d)(1). This is incorrect. The Categorical Effluent Limitation Guidelines for the Steam Electric Power Generating Point Source Category (40 CFR Part 423) were promulgated in 1982. Since the East Third Street facility was built after 1982, it is subject to the requirements applicable to new sources, as set forth in 40 CFR § 423.15. Section 423.15(j) addresses discharges of cooling tower blowdown and should be referenced in lieu of section 423.13(d)(1).

With respect to the scope of the prohibition, we note that the comparable prohibition in the current permit for the East Third Street facility (Order No. R2-2005-0018) prohibits the use of chemicals containing "copper, zinc, chromium or other heavy metal constituents," (i.e., the current prohibition does not refer broadly to "priority pollutants"). While the Fact Sheet does not explain why the language of the permit was changed, we assume it was revised to conform to the language of the Categorical Effluent Limitation Guidelines in Part 423 which provides that discharges of cooling tower blowdown may not contain any detectable concentrations of priority pollutants (other than chromium and zinc) from chemicals added for cooling tower maintenance (see 40 CFR §423.15(j)(1)).

GWF believes that Prohibition III.C. in the permit should be revised to conform to the wording of the New Source Performance Standards, namely that *discharges of cooling tower blowdown* may not contain detectable concentrations of priority pollutants (other than for chromium and zinc) from chemicals added for cooling

tower maintenance. See 40 CFR § 423.15(j)(1). Unlike the draft permit provision, section 423.15(j) does not prohibit or otherwise restrict the types of chemicals that may be used for cooling tower maintenance. Instead, the purpose of section 423.15(j)(1) is to ensure that priority pollutants that might be present in the chemicals themselves are not present in the discharge (i.e., the cooling tower blowdown) in detectable concentrations (other than chromium and zinc, as noted). Section 423.15(j)(3) similarly provides that compliance with the technology-based limits may be determined *by engineering calculations* which demonstrate that "regulated pollutants are not detectable in the final discharge" by the analytical methods in 40 CFR Part 136.

Accordingly, it is inappropriate to limit the internal use of chemicals, and Prohibition III.C should be revised to state that ***"Discharges of cooling tower blowdown . . . shall not contain any detectable concentrations of priority pollutants."***

Further, to avoid confusion and ambiguity, the Fact Sheet's description of Prohibition III.C. (which paraphrases the actual permit condition) should be revised to read:

> ***"No detectable concentrations of priority pollutants from cooling tower maintenance chemicals (except chromium and zinc) in discharges of cooling tower blowdown. This prohibition is based on 40 CFR 423.15(j)(1) and (j)(3)."***

2. **Page 9, IV.C., Effluent Limitations for Toxic Pollutants; and page F-15; Item 2.e. Receiving Water Hardness**

Ambient hardness values are used to calculate freshwater WQOs that are hardness dependent. Hardness data are collected through the Regional Monitoring Program for water bodies in the San Francisco Bay Region. The objectives for this Order were determined using a hardness value of 90 mg/L, the adjusted geometric mean of the hardness values observed below 400 mg/L at the Sacramento River Station. These data represent the best available information for the hardness of the receiving water after it has mixed with the discharge.

GWF Comment:

The Regional Board has chosen to use only a partial data set of observed hardness values, eliminating *individual* observations of 400 mg/l or more. The adjusted geometric mean of this censored data set is a hardness value of 90 mg/l. As explained below, this is inconsistent with the California Toxics Rule ("CTR"), which defines the use of hardness for hardness-dependent effluent limitation calculations.

The Sacramento River RMP Station BG20 data set contains one data point for hardness at 400 mg/L and one at 420 mg/L. These data points must be included in the geometric mean calculation to be consistent with the CTR guidelines. Using these two additional data points yields a calculated geometric mean hardness for receiving water of 100 mg/L. The average effluent hardness for GWF's East Third Street facility is 592 mg/L. Therefore, when the effluent is combined with the receiving water in the mixing zone (at an assumed 10:1 dilution ratio), the resulting hardness is 149 mg/L.

The CTR defines the use of hardness for hardness-dependent effluent limitations as follows:

> *Application of metals criteria.* (i) For purposes of calculating *freshwater aquatic life criteria* for metals from the equations in paragraph (b)(2) of this section, *for waters with a hardness of 400 mg/l or less* as calcium carbonate, the actual ambient hardness of the surface water shall be used in those equations. *For waters with a hardness of over 400 mg/l* as calcium carbonate, a hardness of 400 mg/l as calcium carbonate shall be used with a default Water-Effect Ratio (WER) of 1, or the actual hardness of the ambient surface water shall be used with a WER. The same provisions apply for calculating the metals criteria for the comparisons provided for in paragraph (c)(3)(iii) of this section.
>
> (ii) The hardness values used shall be consistent with the design discharge conditions established in paragraph (c)(2) of this section for design flows and mixing zones.

40 CFR § 131.38(c)(4) (emphases added).

It appears that staff interprets this language in the CTR to justify deletion of *individual* observations of 400 mg/L and above from the complete hardness data

set. However, we believe this interpretation is not technically justified and is contrary to the express language of the CTR, which clearly indicates that the distinction between hardness above and below 400 mg/L applies to the receiving waters themselves, not to the individual data points. In other words, *after* hardness is determined, by the geometric mean of *all* observed hardness values for the receiving water body, those waters with hardness over 400 mg/L are set to a default hardness of 400 mg/L, while actual hardness is used for those waters with hardness of 400 mg/L or less.[1]

There is nothing in the CTR regulation that directs or allows the permit writer to omit individual hardness data points above 400 mg/L when calculating freshwater aquatic life criteria. On the contrary, the CTR provides the methodology for using the entire available data set of hardness values, including those above 400 mg/L, to obtain the most accurate measure of the actual hardness of receiving waters. Arbitrarily censoring the data set to exclude higher values results in an inaccurately low measure of the actual hardness of receiving waters. As a result, the Fact Sheet's claim that "These data represent the best available information for the hardness of the receiving water after it has mixed with the discharge" is factually incorrect.

The CTR preamble supports this conclusion. See 65 Fed. Reg. 31682 (May 18, 2000). As the preamble (p. 31692) explains, hardness is a surrogate measure for a number of water quality characteristics which affect metals toxicity. "At high hardness, there is an indication that hardness and related inorganic water quality characteristics do not have as much of an effect on toxicity of metals as they do at lower hardnesses. Related water quality characteristics do not correlate as well at higher hardnesses as they do at lower hardnesses." (Id.) The reduced linkage between hardness and toxicity at high hardness values explains why the CTR takes a different approach with respect to receiving waters with hardness above and below 400 mg/L. Again, however, the observation that high hardness is less closely linked to toxicity applies to the receiving waters, not to individual data

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[1] Moreover, even if the staff's approach were correct (which it is not), it incorrectly applied the CTR dichotomy. As noted above, the hardness calculation in the tentative order excludes two hardness data points from the Sacramento River RMP Station BG20 data set: one at 400 mg/l and one at 420 mg/l. The CTR explicitly states that actual ambient hardness is used for waters with a hardness *of 400 mg/l* or less, while waters above 400 mg/l are set to a default hardness of 400 mg/l. Accordingly, the 400 mg/l data point should not have been excluded, even under staff's approach.

points. If, for example, the CTR's rationale were that test methods for hardness are inaccurate at high values, it might make sense to exclude individual high data points. On the contrary, the CTR's rationale is that it is the actual, underlying physical chemistry of the waters that determines the relationship between hardness and toxicity. That rationale provides no justification for eliminating individual high data points which, together with lower data points, provide the "best available information" on the actual, underlying physical chemistry of the waters.

The facility's current permit does not include a requirement to monitor the effluent for hardness and staff did not request effluent hardness data during the renewal of the permit. However, GWF has collected a large amount of effluent hardness data during Aquatic Toxicity tests and therefore requests the following:

1. The hardness value be derived in accordance with the CTR, which includes using all the hardness data points available in the Sacramento River RMP monitoring station.

2. The attached effluent hardness values acquired by GWF during Aquatic Toxicity tests should be used to calculate Receiving Water hardness after it has mixed with the discharge. See Exhibit 1.

Using this data, when the effluent is combined with the receiving water in the mixing zone (at an assumed 10:1 dilution ratio), the resulting hardness is 149 mg/L, as shown in Table #1. Based on this information, the calculated effluent limits for lead would be 25 µg/L AMEL and 57 µg/L MDEL.

The current permit contains final WQBELs for lead of 5.5 µg/L AMEL and 14 µg/L MDEL. GWF does not believe that the anti-backsliding prohibition prevents staff from adopting less-stringent WQBELs for lead, based on the exception for waters that are in attainment as set forth in Clean Water Act section 303(d)(4)(B), as well as the "new information" exception (a new hardness calculation) in section 409(o). The equations that are used to derive WQBELs, as set forth in the SIP, are designed to be protective of water quality, and GWF maintains that it is entitled to permit limits that derive from these equations, using all relevant and reliable data. As such, new final WQBELs of 25 µg/L and 57 µg/L may properly be included in the permit.

At a minimum, however, the WQBELs contained in the current permit (5.5 µg/L AMEL and 14 µg/L MDEL) should be carried forward into the renewed permit. <u>There is no basis for imposing more stringent lead limits in the renewed permit.</u>

Table #1

Sacramento River Hardness (Geo Mean) – All data	GWF Effluent Hardness (Geo Mean)	Combined Sacramento River/GWF effluent hardness @ 10:1 dilution
100 mg/l	592 mg/l	149 mg/l

Combined hardness calculated as follows:
c= ((ax9)+(bx1))/10 Where c= Combined Receiving Water and GWF hardness @ 10:1 dilution
a= Receiving Water hardness
b= GWF Effluent hardness

3. **Page 10, IV.C., Effluent Limitations for Toxic Pollutants; and page F-16; Item 3.c. Ambient Background Data**

Ambient background values were used to determine reasonable potential and to calculate Water Quality Based Effluent Limitations (WQBELs). The ambient background concentrations were the observed maximum detected water column concentrations from the Sacramento River RMP station.

GWF Comment:

GWF does not believe that the Regional Board accurately determined ambient background conditions in the receiving waters. Specifically, staff is using data that is not representative of the ambient water column of the Sacramento River RMP monitoring station in that it is unduly influenced by significant storm events and thus not representative of ambient conditions.

Data that is not representative of the ambient water column should not be used for the effluent limit calculations. Staff used RMP data which included samples collected immediately following significant rainfall events, which is not considered to be representative of the ambient water column pursuant to the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). GWF understands that the SIP requires the maximum observed background value to be used. However, the SIP also states:

> The RWQCB shall have discretion to consider if any samples are invalid for use as applicable data due to evidence that… the sample is not representative of the ambient receiving water column that will mix with the discharge. For example, the RWQCB shall have discretion to consider samples to be invalid that have been taken during peak flows of significant storm events.

SIP section 1.4.3.1. It is significant that the only example that the State Water Resources Control Board (SWRCB) chose to include in the SIP itself, as sufficient justification to omit sample data points, was sampling *during peak flows of significant storm events.*[2] Additionally, GWF contacted the staff at the San Francisco Estuary Institute (SFEI) and was informed that since 2003, RMP samples are no longer collected following significant storm events, for the very reason that these samples are not considered to be representative of ambient conditions in the receiving water.

The maximum Sacramento River RMP concentrations for lead, copper and zinc (as well as arsenic, cadmium, mercury, nickel and TSS) are from the same sample collection date, January 29, 1997. The next-highest RMP values were obtained from samples collected on February 4, 1998. GWF has obtained precipitation records for the Sacramento area, which demonstrate that significant storms occurred immediately preceding these two RMP sampling dates. (Exhibit 2; Sacramento Area Precipitation Records). It is also noteworthy that these two sampling events are more than 12 years old and can hardly be considered representative of current ambient conditions. GWF believes these RMP values

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[2] Based on our review of the administrative record of the SIP, this example was added to the final SIP to address comments that raised concerns on the invalidity of sampling associated with storm events. The SWRCB's 2000 Functional Equivalent Document (FED) for the SIP, p. V-57, explains that: "High outliers may have to be reviewed to determine if they are representative of the ambient receiving water that will mix with the discharge." The SIP FED Appendix G, Comments and Responses, contains comments such as Comment 040ca: "[B]ackground levels often increase under wet weather events due to the resuspension of sediments and scouring of overland flow. These conditions, which do not exist during low flows, will be used to penalize point sources. . . ." In response to Comment 040ca, the SWRCB admitted that: "Some ambient background concentrations are increased during wet weather events. . . . Additionally, amended language has been included in the proposed Policy that provides discretion to the RWQCB to consider samples invalid that have been taken during peak flows of significant storm events when analyzing data for the observed maximum value."

are ***"not representative of the ambient receiving water column"*** and the Regional Board should exercise its discretion, as provided in the SIP, to omit these values when calculating the effluent limits.

Therefore, GWF requests that the next-highest RMP values be used to calculate the effluent limitations. Accordingly, the following values should be used to calculate the effluent limits: lead = 1.508 µg/L, copper = 5.823 µg/L and zinc = 11.489 µg/L. Use of these data result in the following effluent limits:

	AMEL µg/L	**MDEL** µg/L
Lead	14.4	33
Copper	61	89
Zinc	391	847

All Sacramento River Hardness Values. If the effluent limitation calculations are adjusted using the correct hardness value as described in Comment #2 above, the following effluent limits are derived:

	AMEL µg/L	**MDEL** µg/L
Lead	30.9	70.6
Copper	No change	No change
Zinc	No change	No change

To reiterate, these WQBELs are derived directly from the equations in the SIP, using representative and reliable data. We note that the WQBELs for copper are actually more stringent than the limits contained in Order No. R2-2101-0056 (relating to implementation of the site-specific water quality objective for copper).[3] In the case of zinc, we believe the recalculated AMEL and MDEL, taken together, are more stringent than the limits in the current permit (408 µg/L AMEL, 780 µg/L MDEL) given that the long-term average is more restrictive. During the last permit renewal cycle, the Regional Board expressly allowed an increase in the MDEL where it was accompanied by a reduction in the AMEL. See Order No. R2-2005-0018, Finding 60.c. ("[a]lthough the calculated MDEL is

[3] The copper limits in Order No. R2-2010-0056 for Site I are 72 µg/L AMEL and 94 µg/L MDEL.

greater than the previous Order's zinc MDEL . . ., the new WQBELs derived using the SIP procedures are considered to be more protective of the water quality").

4. **Page E-3; Table E-2 Effluent Monitoring -- Footnote [4]**

Monthly acute bioassay testing (MRP section IV).

GWF Comment:

The draft permit requires Acute Toxicity monitoring to be conducted on a monthly basis, rather than on a quarterly basis as allowed under the facility's current permit. There is no justification for this increased testing.

The East Third Street facility was constructed in 1989 and has held an NPDES permit since then. GWF's effluent has never violated the acute toxicity permit limitations. During the last renewal cycle for the permit for this facility, GWF submitted data that demonstrated that no violations had occurred in the previous five years. The Self-Monitoring Program for the current permit (Table 1, footnote 6) authorized the Executive Officer to reduce the acute toxicity monitoring frequency to quarterly if there were no violations after one year of monthly acute toxicity tests. GWF met this condition, and was granted approval to switch to quarterly monitoring by Executive Officer Bruce Wolfe on June 30, 2006 (Exhibit 3; approval letter from SFRWQCB, dated June 30, 2006).

Table 1, footnote 6 of the current permit requires a return to monthly monitoring only if either acute toxicity is observed in violation of permit limitations or changes occur in the volume or characteristics of the effluent that might cause acute toxicity. Even if those events occurred, GWF would be required to resume monthly monitoring only until it reported no violations for three consecutive months.

In fact, neither of these triggering conditions has occurred. During the five years from 2005 to 2010, the Site I discharge has remained in compliance with the acute toxicity limitations. GWF believes that the non-toxic nature of its discharge has been established in accordance with the current permit provisions, and that there is no justification for staff's insistence that GWF return to monthly monitoring. There is nothing in the record to suggest that quarterly monitoring is insufficiently protective or that circumstances have changed since the current permit and the Executive Officer's approval were issued. The facility should not be required to return to monthly acute toxicity testing, or to re-demonstrate its eligibility for

quarterly monitoring, especially in the absence of any stated reason or benefit documented in the record. The additional monitoring required by the draft permit is expected to cost at least $50,000 over the life of the permit, and is unwarranted.

B. MINOR AND EDITORIAL COMMENTS

1. Page E-5; Table E-3

Parameter: Sulfide

GWF Comment:

The Receiving Water permit limitation is for "dissolved sulfide", not "sulfide". Please clarify the Receiving Water Monitoring requirement by changing it to "Dissolved Sulfide".

2. Page E-6; Item 4

The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR 136.

GWF Comment:

It is our understanding that it is not possible to report analytical lab results in this manner (i.e.; reporting the associated Reporting Level and Method Detection Limit with each sample result) in the Electronic Reporting System ("ERS") as it is currently configured. Unless the ERS template is modified by the Regional Board to add fields allowing for this additional information to be entered, GWF will be unable to report the RL and MDL with each sample in the required electronic reports. GWF will include this information in its submittal of hard copy reports.

3. Page F-8; Item 4.A.3. Discharge Prohibition III.C

Discharge Prohibition III.C (No use of chemicals containing heavy metals): This prohibition is based on 40 CFR 423.13(d)(1)

GWF Comment:

Please see comment above regarding Prohibition III.C.

However, even if the language of Prohibition III, C is retained, the Fact Sheet is inconsistent with the permit. The language in the Fact Sheet, Attachment F, Section IV, A, 3 states "*No* use of chemicals containing heavy metals," while Prohibition III, C on page 9 in the Permit states "Chemicals used…shall not contain any *detectable* concentrations of priority pollutants." The Fact Sheet should be revised to be consistent with the permit, by referring to detectable concentrations of priority pollutants.

4. **Page F-20 thru F-22; Item 4.c. Calculation of Pollutant-Specific WQBELs**

GWF Comment:

The effluent concentration values (95th percentiles, 99th percentiles and mean values) listed in the Fact Sheet for copper, lead, zinc and cyanide are incorrect. These values do not reflect the effluent data that was provided to the RWQCB in the permit application. While the effluent values utilized in the calculations of the limitations are the correct values, for some reason the values were not correctly documented in the Fact Sheet. The Fact Sheet should be revised to show the correct values as follows:

- Copper: 95th Percentile = 24.2 µg/L
  99th Percentile = 28.4 µg/L
  Mean = 15.9 µg/L

- Lead: 95th Percentile = 1.05 µg/L
  99th Percentile = 2.59 µg/L
  Mean = 0.59 µg/L

- Zinc: 95th Percentile = 42.1 µg/L
  99th Percentile = 81.0 µg/L
  Mean = 20.7 µg/L

- Cyanide: 95th Percentile = 5.3 µg/L
  99th Percentile = 6.7 µg/L
  Mean = 2.6 µg/L

5. **Page F-21; Item 4.c.(2)(e) Anti-backsliding**

GWF Comment:

This section incorrectly states that the previous permit contained interim performance-based limits for lead and did not contain final WQBELs. The previous permit (R2-2005-0018) contained final WQBELs of 5.5 µg/L AMEL and 14.1 µg/L MDEL for lead. There were no interim limits. The Fact Sheet should be corrected.

The final limits calculated in the Tentative Order are 5.4 µg/L AMEL and 12 µg/L MDEL. These limits are more stringent than the previous final permit limits. (As discussed in Sections A.2. and A.3. above, GWF believes that the renewed permit should contain re-calculated WQBELs for lead based on accurate hardness data for the receiving waters and representative ambient background data.)

6. **Page F-23; Table F-11 Effluent Limit Calculations**

GWF Comment:

A "Final Limit - AMEL" of 5.7 µg/L for lead is entered incorrectly into the table. The correct value is 5.4 µg/L (unless staff agrees to recalculate the WQBELs for lead, as discussed above).

7. **Page F-24; Item E.3. More Stringent Effluent Limits**

GWF Comment:

Lead should be added to this section. As noted above, the previous permit contained final limits for lead. The AMEL and MDEL limits for lead as proposed in this Tentative Order are more stringent that the final limits in the previous permit.

* * * * *

We would be happy to meet with staff to review these comments, and hope that the permit can be revised prior to the scheduled hearing date to resolve the issues addressed in these comments.

Very truly yours,

Margaret Rosegay

Enclosures
Exhibit 1 – Effluent Hardness Data
Exhibit 2 – Historical Precipitation Records
Exhibit 3 – June 30, 2006 Letter from B. Wolfe

cc: Mark Kehoe, GWF
Lila Tang, SFRWQCB
William Johnson, SFRWQCB

EXHIBIT 1

East Third Street Effluent Hardness:

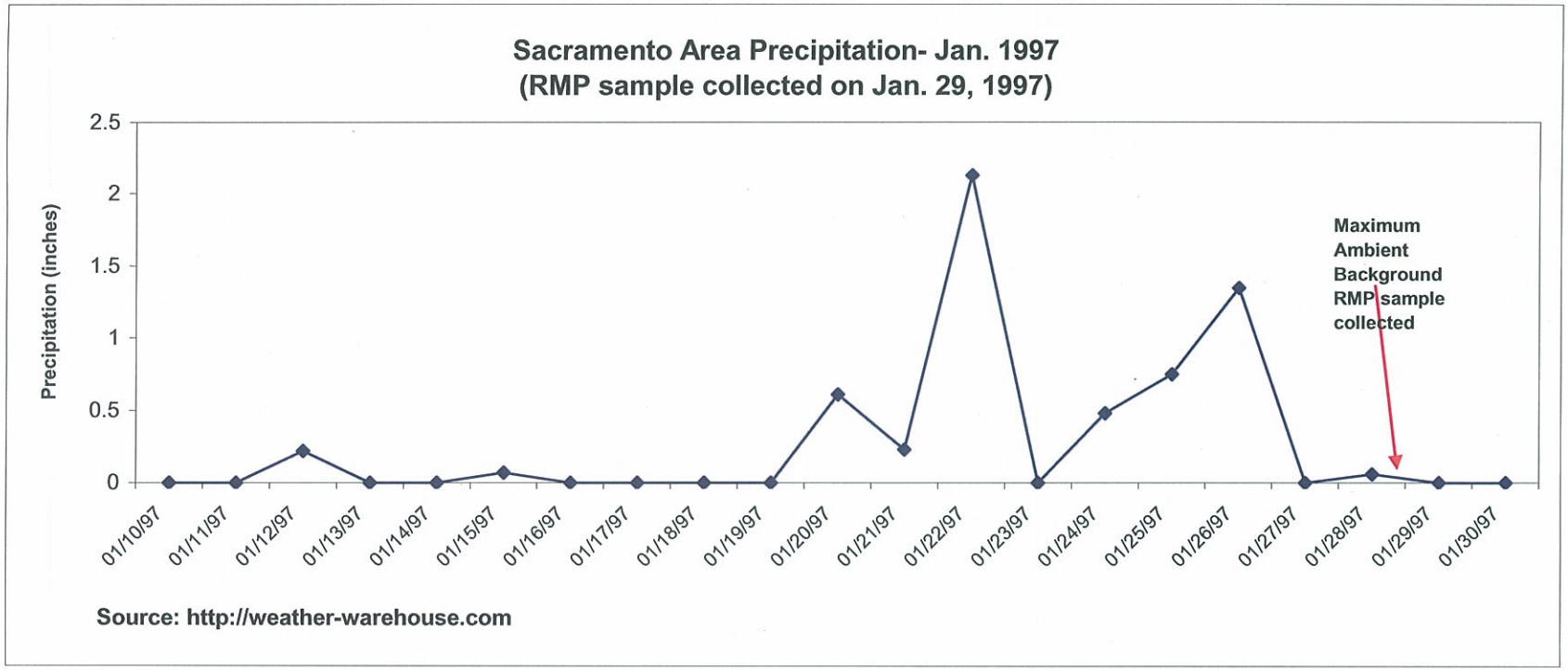
Geo. Mean = 592

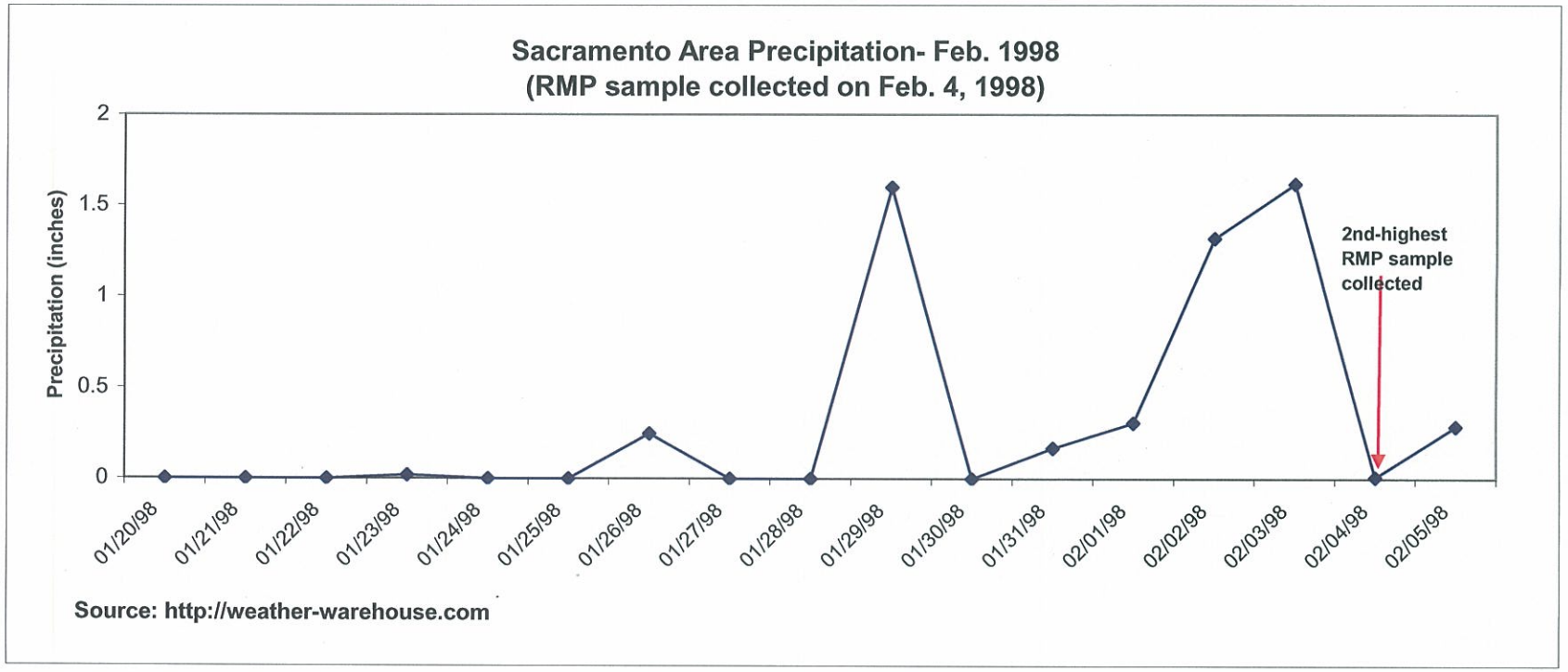
*Hardness values obtained from April 2008 - April 2010 Pacific Ecorisk Lab reports.

Effluent Hardness (mg/L as CaCO3)

2008	mg/L	2009	mg/L	2010	mg/L
4/8/2008	440	1/14/2009	640	1/6/2010	587
4/9/2008	458	1/15/2009	577	1/7/2010	579
4/10/2008	560	1/16/2009	529	1/8/2010	570
4/11/2008	572	1/17/2009	520	1/9/2010	606
11/5/2008	691	4/6/2009	545	4/7/2010	658
11/6/2008	696	4/7/2009	587	4/8/2010	683
11/7/2008	688	4/8/2009	583	4/9/2010	728
		4/9/2009	589	4/10/2010	746
		7/6/2009	392		
		7/7/2009	412		
		7/8/2009	444		
		7/9/2009	445		
		10/21/2009	809		
		10/22/2009	841		
		10/23/2009	747		
		10/24/2009	784		

EXHIBIT 2


Sacramento Area Precipitation- Jan. 1997
(RMP sample collected on Jan. 29, 1997)
Precipitation (inches)
2.5
2
1.5
1
0.5
0
01/10/97
01/11/97
01/12/97
01/13/97
01/14/97
01/15/97
01/16/97
01/17/97
01/18/97
01/19/97
01/20/97
01/21/97
01/22/97
01/23/97
01/24/97
01/25/97
01/26/97
01/27/97
01/28/97
01/29/97
01/30/97
Maximum Ambient Background RMP sample collected
Source: http://weather-warehouse.com


Sacramento Area Precipitation- Feb. 1998
(RMP sample collected on Feb. 4, 1998)
Precipitation (inches)
2
1.5
1
0.5
0
01/20/98
01/21/98
01/22/98
01/23/98
01/24/98
01/25/98
01/26/98
01/27/98
01/28/98
01/29/98
01/30/98
01/31/98
02/01/98
02/02/98
02/03/98
02/04/98
02/05/98
2nd-highest RMP sample collected
Source: http://weather-warehouse.com

Here is the data for the station requested. Check the Weather Source website Frequently Asked Questions (FAQ) page for additional help on how to use this file with a database program

Weather Source Stations are identified by a unique Weather Source ID (WsID). For your convenience we also provide other popular IDs as available.

T = Trace
N = Not Reported by the Government

TmaxF - High Temperature (degrees Fahrenheit)
TminF - Low Temperature (degrees Fahrenheit)
TmeanF - Mean Temperature (degrees Fahrenheit)
PrcpIn - Precipitation (inches)
SnowIn - Snow (inches)
CDD - Cooling Degree Days
HDD - Heating Degree Days
GDD - Growing Degree Days

Station: Sacramento Wso City
Location: Sacramento, CA 95819
County: Sacramento
FIPS: 06067
Elevation: 11.5824 meters
DST Flag: Y□
Time Zone: -8
Latitude: 38.5556□
Longitude: -121.417
WsID: 11648
CoopID: 047633
IcaoID: N/A
WmoID: N/A
WbanID: 23271
NwsId: SMTC1

WsId	Date	TmaxF	TminF	TmeanF	Precip. Inch.
Jan. 1997					
11648	1/10/1997	51	35	43	0
11648	1/11/1997	49	41	45	0
11648	1/12/1997	46	38	42	0.22
11648	1/13/1997	43	32	37.5	0
11648	1/14/1997	48	29	38.5	0
11648	1/15/1997	45	38	41.5	0.07
11648	1/16/1997	55	44	49.5	0
11648	1/17/1997	53	46	49.5	0
11648	1/18/1997	52	46	49	0
11648	1/19/1997	55	45	50	0
11648	1/20/1997	55	45	50	0.61
11648	1/21/1997	55	47	51	0.23
11648	1/22/1997	54	43	48.5	2.13
11648	1/23/1997	57	43	50	0
11648	1/24/1997	52	45	48.5	0.48
11648	1/25/1997	60	50	55	0.75
11648	1/26/1997	64	53	58.5	1.35
11648	1/27/1997	62	53	57.5	0
11648	1/28/1997	66	53	59.5	0.06
11648	1/29/1997	62	47	54.5	0
11648	1/30/1997	57	48	52.5	0
Feb. 1998					
11648	1/20/1998	54	43	48.5	0
11648	1/21/1998	55	38	46.5	0
11648	1/22/1998	58	43	50.5	0
11648	1/23/1998	53	42	47.5	0.02
11648	1/24/1998	62	46	54	0
11648	1/25/1998	55	44	49.5	0
11648	1/26/1998	57	46	51.5	0.25
11648	1/27/1998	60	50	55	0
11648	1/28/1998	61	52	56.5	0
11648	1/29/1998	61	50	55.5	1.6
11648	1/30/1998	59	45	52	0
11648	1/31/1998	61	43	52	0.17
11648	2/1/1998	54	50	52	0.31
11648	2/2/1998	63	52	57.5	1.32

WsId	Date	TmaxF	TminF	TmeanF	PrcpIn	SnowIn	CDD	HDD	GDD
04/28/1994									
11648	4/10/1994	75	46	60.5	0	0	0	4.5	10.5
11648	4/11/1994	81	49	65	0	0	0	0	15
11648	4/12/1994	84	54	69	0	0	4	0	19
11648	4/13/1994	82	53	67.5	0	0	2.5	0	17.5
11648	4/14/1994	86	52	69	0	0	4	0	19
11648	4/15/1994	87	56	71.5	0	0	6.5	0	21.5
11648	4/16/1994	75	55	65	0	0	0	0	15
11648	4/17/1994	84	54	69	0	0	4	0	19
11648	4/18/1994	86	54	70	0	0	5	0	20
11648	4/19/1994	80	53	66.5	0	0	1.5	0	16.5
11648	4/20/1994	81	52	66.5	0	0	1.5	0	16.5
11648	4/21/1994	79	51	65	0	0	0	0	15
11648	4/22/1994	71	51	61	0	0	0	4	11
11648	4/23/1994	59	48	53.5	0.09	0	0	11.5	3.5
11648	4/24/1994	64	46	55	0	0	0	10	5
11648	4/25/1994	60	46	53	0.29	0	0	12	3
11648	4/26/1994	72	48	60	0	0	0	5	10
11648	4/27/1994	76	49	62.5	0.03	0	0	2.5	12.5
11648	4/28/1994	81	51	66	0	0	1	0	16
11648	4/29/1994	69	50	59.5	0	0	0	5.5	9.5
11648	4/30/1994	75	50	62.5	0	0	0	2.5	12.5
11648	5/1/1994	77	49	63	0	0	0	2	13
11648	5/21/1994	78	52	65	0	0	0	0	15
11648	5/22/1994	85	51	68	0	0	3	0	18
11648	5/23/1994	92	56	74	0	0	9	0	24
11648	5/24/1994	92	58	75	0	0	10	0	25
11648	5/25/1994	84	55	69.5	0	0	4.5	0	19.5
11648	5/26/1994	72	54	63	0	0	0	2	13
11648	5/27/1994	84	53	68.5	0	0	3.5	0	18.5
11648	5/28/1994	89	57	73	0	0	8	0	23
11648	5/29/1994	95	59	77	0	0	12	0	27
11648	5/30/1994	95	64	79.5	0	0	14.5	0	29.5
11648	5/31/1994	78	59	68.5	0	0	3.5	0	18.5

WsId	Date	TmaxF	TminF	TmeanF	Precip. Inch.
Jan. 1997					
11648	2/3/1998	56	46	51	1.62
11648	2/4/1998	58	46	52	0.01
11648	2/5/1998	60	50	55	0.29
11648	2/6/1998	61	49	55	1.3
11648	2/7/1998	52	48	50	0.67

WsId	Date	TmaxF	TminF	TmeanF	PrcpIn	SnowIn	CDD	HDD	GDD
04/28/1994									

Sacramento River RMP Data Set

						Cu				Pb				Zn				TSS		
Test Mate	Matrix	Site Code	Region	Cruise #	Sample Date	Qual	Result	MDL	Unit	Qual	Result	MDL	Unit	Qual	Result	MDL	Unit	Qual	Result	MDL	Unit
WaterChe	Total	BG20	Rivers	1993-03	03/05/1993		5.230	0.004	µg/L		0.920	0.004	µg/L		8.400	0.007	µg/L		38.500	0.100	mg/L
WaterChe	Total	BG20	Rivers	1993-05	05/27/1993		3.350	0.004	µg/L		0.528	0.004	µg/L		5.000	0.007	µg/L		19.900	0.100	mg/L
WaterChe	Total	BG20	Rivers	1993-09	09/16/1993		3.740	0.004	µg/L		0.688	0.004	µg/L		8.430	0.007	µg/L		31.200	0.100	mg/L
WaterChe	Total	BG20	Rivers	1994-01	02/09/1994						0.441	0.007	µg/L		3.740	0.006	µg/L		10.200	0.100	mg/L
WaterChe	Total	BG20	Rivers	1994-04	04/28/1994		5.823	0.018	µg/L		1.508	0.002	µg/L		11.489	0.021	µg/L		31.800	0.190	mg/L
WaterChe	Total	BG20	Rivers	1994-08	08/24/1994		3.435	0.018	µg/L		0.453	0.007	µg/L		2.751	0.004	µg/L		16.260	1.000	mg/L
WaterChe	Total	BG20	Rivers	1995-02	02/15/1995		4.680	0.010	µg/L		0.621	0.003	µg/L		7.458	0.009	µg/L		45.460	0.460	mg/L
WaterChe	Total	BG20	Rivers	1995-04	04/18/1995		4.300	0.010	µg/L		0.800	0.001	µg/L		5.670	0.020	µg/L		39.270	0.150	mg/L
WaterChe	Total	BG20	Rivers	1995-08	08/23/1995		2.620	0.005	µg/L		0.500	0.005	µg/L		3.360	0.004	µg/L		21.000	0.150	mg/L
WaterChe	Total	BG20	Rivers	1996-02	02/14/1996		3.850	0.027	µg/L		0.740	0.003	µg/L		7.380	0.005	µg/L		40.075	0.001	mg/L
WaterChe	Total	BG20	Rivers	1996-04	04/23/1996		2.150	0.008	µg/L		0.290	0.001	µg/L		2.570	0.016	µg/L		16.600	1.290	mg/L
WaterChe	Total	BG20	Rivers	1996-07	07/22/1996		3.290	0.017	µg/L		1.203	0.001	µg/L		5.100	0.008	µg/L		33.400	3.200	mg/L
WaterChe	Total	BG20	Rivers	1997-01	01/29/1997		9.864	0.014	µg/L		2.349	0.001	µg/L		18.210	0.009	µg/L		173.731	1.401	mg/L
WaterChe	Total	BG20	Rivers	1997-04	04/23/1997		3.374	0.011	µg/L		0.506	0.003	µg/L		6.086	0.025	µg/L		29.119	0.190	mg/L
WaterChe	Total	BG20	Rivers	1997-07	08/06/1997		2.219	0.007	µg/L		0.654	0.004	µg/L		4.854	0.008	µg/L		34.264	0.612	mg/L
WaterChe	Total	BG20	Rivers	1998-02	02/04/1998		6.721	0.002	µg/L		1.749	0.002	µg/L		16.430	0.007	µg/L		111.100	0.612	mg/L
WaterChe	Total	BG20	Rivers	1998-04	04/16/1998		3.103	0.004	µg/L		0.420	0.001	µg/L		4.801	0.008	µg/L		29.350	0.390	mg/L
WaterChe	Total	BG20	Rivers	1998-07	07/29/1998		2.808	0.009	µg/L		0.500	0.003	µg/L		4.788	0.032	µg/L		25.995	0.390	mg/L
WaterChe	Total	BG20	Rivers	1999-02	02/10/1999		2.903	0.037	µg/L		0.521	0.002	µg/L		3.134	0.006	µg/L		14.756	0.094	mg/L
WaterChe	Total	BG20	Rivers	1999-04	04/21/1999		3.059	0.001	µg/L		0.363	0.003	µg/L		3.773	0.001	µg/L		24.479	0.130	mg/L
WaterChe	Total	BG20	Rivers	1999-07	07/21/1999		3.842	0.027	µg/L		0.872	0.002	µg/L		5.802	0.002	µg/L		39.911	0.000	mg/L
WaterChe	Total	BG20	Rivers	2000-02	02/09/2000		3.334	0.031	µg/L		0.779	0.003	µg/L		4.310	0.039	µg/L		30.800	0.000	mg/L
WaterChe	Total	BG20	Rivers	2000-07	07/19/2000		3.396	0.014	µg/L		1.068	0.001	µg/L		5.531	0.015	µg/L		35.200	0.411	mg/L
WaterChe	Total	BG20	Rivers	2001-02	02/14/2001		4.613	0.002	µg/L		0.829	0.014	µg/L		7.022	0.014	µg/L		43.387	0.156	mg/L
WaterChe	Total	BG20	Rivers	2001-08	08/07/2001		3.300	0.002	µg/L		0.543	0.014	µg/L		4.710	0.014	µg/L		34.665	0.070	mg/L
WaterChe	Total	BG20	Rivers	2002-07	07/30/2002		3.215	0.010	µg/L		0.498	0.001	µg/L		3.979	0.011	µg/L				
WaterChe	Total	BG20	Rivers	2003-08	08/15/2003		3.376	0.039	µg/L		0.617	0.005	µg/L		4.906	0.047	µg/L				
WaterChe	Total	BG20	Rivers	2004-07	07/23/2004		3.161	0.002	µg/L		0.838	0.022	µg/L		3.737	0.004	µg/L				
WaterChe	Total	BG20	Rivers	2005-02	02/28/2005		3.942	0.002	µg/L		1.035	0.022	µg/L		3.856	0.004	µg/L				
WaterChe	Total	BG20	Rivers	2005-08	08/08/2005		3.202	0.012	µg/L		0.516	0.000	µg/L		3.825	0.114	µg/L				
WaterChe	Total	BG20	Rivers	2006-08	08/24/2006		2.556	0.011	µg/L		0.428	0.001	µg/L		2.296	0.030	µg/L				
WaterChe	Total	BG20	Rivers	2007-08	08/07/2007		3.015	0.030	µg/L		0.335	0.036	µg/L		0.620	0.080	µg/L		13.000	1.000	mg/L
WaterChe	Total	BG20	Rivers	2008-07	07/09/2008		3.020	0.030	µg/L		0.341	0.035	µg/L		3.350	0.080	µg/L				
						Max. =	9.864			Max. =	2.349							Max. =	173.731		

California Regional Water Quality Control Board
San Francisco Bay Region

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Linda S. Adams
Secretary for
Environmental Protection

Arnold Schwarzenegger
Governor

JUN 3 0 2006

cc: hf

File No. 2119.1170 (GP)

GWF Power Systems, L.P.
Mr. Mark Kehoe, Director
Environmental and Safety Programs
4300 Railroad Avenue
Pittsburg, CA 94565-6006

Subject: Revision to Self-Monitoring Program, GWF Site I Power Plant, 895 East Third Street, Contra Costa County, NPDES Permit No. CA0029106.

Dear Mr. Kehoe:

This letter amends GWF Site I Power Plant's Self Monitoring Program to reduce the acute toxicity testing frequency from monthly to quarterly.

In a May 26, 2006, letter, GWF requested that the Water Board permit it to conduct acute toxicity testing quarterly. GWF's Self-Monitoring Program on page 5 of Order No. R2-2005-0018 allows acute toxicity testing frequency to be changed to quarterly provided GWF does not violate the acute toxicity limits after one year of monthly testing. Since GWF has complied with the acute toxicity limits during the past year and appears to have met all acute toxicity requirements specified in Provision 9 of its order, it is acceptable to reduce the testing frequency.

If you have any questions, please contact Gayleen Perreira at (510)622-2407, or via e-mail at gperreira@waterboards.ca.gov.

Sincerely,

Bruce H. Wolfe
Executive Officer

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Fairfax, VA 22030

U.S. EPA, Region 9, Ms. Nancy Yoshikawa
Mail Code Wtr-5, 75 Hawthorne St
San Francisco, CA 94105