



Cabrillo Power I LLC
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January 14, 2019

Ms. Eileen Sobeck
Executive Director
State Water Resources Board
Division of Water Quality, 15th Floor
1001 I Street
Sacramento, CA 95814

Re: Once Through Cooling Policy Implementation Plan Update for Encina Power Station, NPDES CA0001350, Order R9-2006-0043; Letter dated October 29, 2018

Dear Ms. Sobeck,

Cabrillo Power I LLC (Cabrillo), owner of the Encina Power Station (EPS) and wholly owned subsidiary of NRG Energy, Inc. (NRG), submits its response to the State Water Resources Control Board's (SWRCB) October 29, 2018 letter in which the SWRCB requested information in order to calculate the Interim Mitigation Requirements for EPS pursuant to the Use of Coastal and Estuarine Water for Power Plant Cooling (Policy). The SWRCB granted an extension to January 25, 2019 to the reporting of this request to allow Cabrillo additional time to tally actual flows for EPS from October 1, 2017 through December 11, 2018 when EPS ceased operations, beyond the requested September 30, 2018 reporting timeframe. This expanded reporting timeframe will allow the SWRCB to generate a single invoice that covers Interim Mitigation Requirements through the end of EPS' Once-Through-Cooling operations. Cabrillo respectfully submits the requested information as described below.

1. Monthly and total intake volume for October 1, 2017 thru September 30, 2018;

The monthly and total discharge volumes for EPS from October 1, 2017 thru September 30, 2018 period are summarized in Attachment A. October 1, 2018 through December 11, 2018 are also included as EPS ceased power generation operations on December 12, 2018. EPS' once-through-cooling (OTC) water structure is designed such that the amount of water drawn in by the pump system is the same amount discharged from the condensers to the EPS outfall. The Carlsbad Desalination Project (CDP) removes and returns a portion of this intake volume for their plant operations. The data are organized into columns: actual gross volume drawn by the pump system, volume removed by CDP for desalination purposes, volume returned by CDP, and the net amount discharged to the EPS outfall. Note these are the same data reported to the RWQCB in the CIWQS reporting system per the requirements of NPDES Permit CA0001350, Order No. R9-2006-0043. EPS' total gross intake volume between October 1, 2017 and December 11, 2018 is 178,283 million gallons. EPS OTC system actual discharge volume for this period is 159,184 million gallons, which is the difference between the total gross intake volume and the volume removed by CDP for potable water supply (i.e., 19,099 million gallons).

Based on the SWRCB's final determination, EPS has a total intake volume of 120,350 million gallons, which is the difference between the total gross intake flow and the intake flow required solely for CDP operations (i.e., 57,933 million gallons - the volume used to produce the potable water supply) between

Ms. Eileen Sobeck
Executive Director, SWRCB
January 14, 2019
Page 2

October 1, 2017 and December 11, 2018. Attachment A illustrates “CDP Exclusive Withdrawal” and “EPS Adjusted Intake Volume” referenced above. Thus, EPS’ mitigation fee for this time period should be based on the adjusted intake volume of 120,350 million gallons.

3. *Actual annual impingement data in total pounds of fishes impinged from October 1, 2017 thru September 30, 2018, or the annual total of fishes impinged on previous years.*

Cabrillo does not monitor impingement or entrainment data on a routine basis. The most recent data were provided in Cabrillo’s November 29, 2016 response to the same request made by the SWRCB on September 26, 2016. The combined counts from all plant mortality sources based on maximum OTC flows were used to estimate a maximum annual impingement of 289,562 fishes weighing 5,841 kg (12,877 lb) and 22,714 shellfishes weighing 233 kg (514 lb). The best estimate of actual impingement using actual OTC flows measured during the sampling period (June 24, 2004 to June 15, 2005) is 215,583 fishes weighing 4,358 kg (11,069 lb) and 14,474 shellfishes weighing 138 kg (304 lb). We believe this latter estimate is representative of “the annual total fishes impinged on previous years.” Cabrillo concurs with the use of a facility-specific fee as prepared by Dr. Peter Raimondi as referenced in SWRCB’s September 26, 2016 letter.

I anticipate the above response has addressed the SWRCB’s information request. If you have any questions, comments, or concerns, please do not hesitate to contact me at george.piantka@nrg.com or (760) 710-2156, or Jerry Carter at jerry.carter@nrg.com or (760) 268-4011.

Sincerely,
Cabrillo Power I LLC



George L. Piantka, PE
Sr. Director, Regulatory Environmental Services
NRG Energy, West Region

cc: Julie Johnson, SWRCB
Dave Gibson, San Diego Regional Water Quality Control Board
Jerry Carter, Cabrillo Power I LLC
Sheila Henika, Cabrillo Power I LLC
Tim Sisk, NRG West Region

Attachments:

- Attachment A – Encina Power Station Flow Data Summary, October 2017 to December 2018

Attachment A
Encina Power Station Flow Data Summary
October 2017 to December 2018

ATTACHMENT A

Month	Year	EPS Intake Volume ¹	CDP Withdrawal Volume ²	CDP Brine Return Volume ³	CDP Delta ⁴	EPS Net Reported Discharge Volume ⁵	CDP Exclusive Withdrawal Volume ⁶	EPS Adjusted Intake Volume ⁷
October	2017	14,738	3,336	1,852	-1,484	13,254	2,848	11,890
November	2017	11,338	2,220	1,373	-848	10,491	2,829	8,509
December	2017	12,760	3,156	1,685	-1,471	11,289	6,353	6,407
January	2018	11,393	2,538	1,442	-1,001	10,392	9,964	1,429
February	2018	10,935	2,568	1,388	-1,180	9,755	5,130	5,805
March	2018	11,611	2,303	1,289	-1,013	10,597	3,921	7,690
April	2018	11,317	3,028	1,657	-1,371	9,946	4,305	7,012
May	2018	11,033	3,153	1,662	-1,491	9,542	136	10,897
June	2018	11,245	3,100	1,702	-1,397	9,848	3,209	8,036
July	2018	15,836	3,273	1,796	-1,477	14,359	958	14,878
August	2018	18,200	3,323	1,640	-1,682	16,518	1,655	16,545
September	2018	10,668	2,677	1,466	-1,212	9,457	1,626	9,042
October	2018	11,728	3,230	1,706	-1,525	10,203	6,016	5,711
November	2018	11,743	3,057	1,605	-1,452	10,290	6,857	4,886
December ⁸	2018	3,737	1,037	543	-493	3,243	2,124.10	1,613
2017 Subtotal		38,836	8,713	4,910	-3,803	35,033	12,031	26,805
2018 Subtotal		139,447	33,286	17,896	-15,296	124,151	45,902	93,545
Period Total		178,283	41,999	22,805	-19,099	159,184	57,933	120,350

All Amounts in Million Gallons

¹ Actual gross volume drawn in by the Encina Power Station Pump System for power generation and/or CDP

² Gross volume removed by CDP for desalination purposes

³ Brine volume returned by CDP to the Encina Power Station discharge

⁴ Volume removed by CDP for potable distribution (Item 2 minus Item 3)

⁵ Encina Power Station reported discharge volume for power generation and/or CDP (Item 1 minus Item 4)

⁶ Total intake volume exclusively for CDP use; no intake for power generation

⁷ Encina Power Station adjusted intake volume subject to interim mitigation (Item 1 minus Item 6)

⁸ Encina Power Station ceased operations on December 11, 2018. This value includes data to through this date.