



Cabrillo Power I LLC
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April 4, 2018

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 February 9, 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) February 9, 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). Cabrillo respectfully submits the requested information as described below.

1. Monthly and total intake volume for October 1, 2016 thru September 30, 2017;

The monthly and total discharge volumes for EPS from October 1, 2016 thru September 30, 2017 period are summarized in Attachment A. 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, 2016 and September 30, 2017 is 153,852 million gallons. EPS OTC system actual discharge volume for this period is 142,075 million gallons, which is the difference between the total gross intake volume and the volume removed by CDP for potable water supply (i.e., 11,777 million gallons).

Based on the SWRCB's final determination, EPS has a total intake volume of 100,630 million gallons, which is the difference between the total gross intake flow and the intake flow required solely for CDP operations (i.e., 53,222 million gallons - the volume used to produce the potable water supply) between October 1, 2016 and September 30, 2017. 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 100,630 million gallons.

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3. *Actual annual impingement data in total pounds of fishes impinged from October 1, 2016 thru September 30, 2017, 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 the SWRCB February 9, 2018 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: Jerry Carter, Cabrillo Power I LLC
Ryan Goerl, Cabrillo Power I LLC
Tim Sisk, NRG West Region
Dave Gibson, San Diego Regional Water Quality Control Board

Attachments:

- Attachment A – Encina Power Station Flow Data Summary, October 2016 to September 2017

Attachment A
Encina Power Station Flow Data Summary
October 2016 to September 2017

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	2016	12,356	3,267	1,693	-1,574	10,782	5,847	6,509
November	2016	13,279	2,849	1,480	-1,369	11,910	3,850	9,429
December	2016	13,411	2,277	1,312	-965	12,446	6,959	6,452
January	2017	10,688	1,989	1,187	-936	9,751	9,188	1,500
February	2017	7,954	1,525	922	-603	7,351	5,741	2,213
March	2017	11,107	2,768	1,638	-1,130	9,977	4,129	6,979
April	2017	10,348	1,706	1,330	-377	9,972	4,206	6,143
May	2017	12,225	2,853	1,541	-1,311	10,914	4,076	8,149
June	2017	12,580	2,392	1,335	-1,057	11,523	2,709	9,870
July	2017	17,906	2,723	1,549	-1,174	16,732	3,002	14,905
August	2017	18,046	2,002	1,592	-411	17,636	1,890	16,156
September	2017	13,952	2,337	1,467	-871	13,081	1,626	12,326
2016 Subtotal		39,046	8,393	4,485	-3,908	35,138	16,656	22,390
2017 Subtotal		114,806	20,295	12,560	-7,870	106,937	36,566	78,241
Period Total		153,852	28,688	17,045	-11,777	142,075	53,222	100,630

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)