
State Water Resources Control Board

January 16, 2014

Mr. Richard Doble
Pacific Gas and Electric Company
P. O. Box 770000, Mail Code N11C
San Francisco, CA 94177

Dear Mr. Doble:

RESPONSE TO REQUEST FOR RELIEF RESERVOIR INSTREAM FLOWS AND MINIMUM POOL VARIANCE; SPRING GAP-STANISLAUS HYDROELECTRIC PROJECT, FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 2130; TUOLUMNE COUNTY

On January 9, 2014, the State Water Resources Control Board (State Water Board) received a request via email from Pacific Gas and Electric Company (PG&E) for a variance to the minimum instream flows and the minimum pool requirement at Relief Reservoir due to the extremely dry weather conditions. The minimum instream flows and minimum pool are required by the water quality certification (certification) issued by the State Water Board under Order WR 2009-0039 for the Spring Gap-Stanislus Hydroelectric Project (Project). PG&E made a previous variance request concerning minimum instream flows below Relief Reservoir to the State Water Board on December 4, 2013, which the State Water Board granted on December 16, 2013 (see Attachment).

Background

Condition 2 of the certification states in part:

The Licensee shall operate Relief Reservoir in conformance with the minimum and maximum streamflow requirements shown in the table below, as may be modified by an approved alternate streamflow regime, and to achieve the specified Operational Objectives.^[1] Additionally, the Licensee shall maintain a year-round streamflow in Summit Creek between Relief Dam and Kennedy Creek of at least 5 cubic feet per second (cfs)², and shall maintain a minimum pool in Relief Reservoir of at least 200 acre-feet.

If the Licensee anticipates at any time that it cannot meet the minimum and/or maximum streamflow requirements it shall notify the [State Water Board] Deputy Director [of the Division of Water Rights], labeling the notification "Compliance Item, Immediate Attention Requested" and provide an alternate streamflow regime and drawdown curve for the year that meets the specified minimum and maximum streamflow requirements and achieves the specified Operational Objectives to the greatest extent feasible. The Deputy Director shall be provided 30 days to review, and if acceptable, approve the Licensee's alternate streamflow regime.

¹ The Operational Objectives are listed in Condition 2 of the certification.

² The 5 cfs minimum flow is measured at PG&E's S-2 gage directly below the Relief Reservoir outlet.

Minimum and Maximum Streamflows for the Relief Reach (cfs)^{3,4}

Month	Water-Year Type					
	Normal		Dry and Critically Dry		Wet	
	Min	Max	Min	Max	Min	Max
October 1-31	30	50	20	40	40	125
November 1-30	30	60	20	50	40	125
December 1-31	30	60	20	50	40	125
January 1–February 9	30	60	20	50	40	125
February 10-March 9	30	60	20	50	40	125
March 10-April 9	30	60	25	50	40	125
April 10-May 9	60	NA	45	NA	70	NA
May 10-May 31	100	NA	80	NA	150	NA
June 1-30	150	NA	100	NA	250	NA
July 1-31	90	NA	40	NA	200	NA
August 1-31	40	200	20	40	100	300
September 1-30	30	120	20	40	60	200

PG&E states in its January 9, 2014 variance request that the inflow to Relief Reservoir is near zero, and that the accretion of flows downstream of Relief Reservoir are similarly low, causing unreliable instream flows in Kennedy Creek at gage S-52. Therefore, PG&E requests a target instream flow release of 5 cfs and that the compliance point for flows be moved to gage S-2. Further, PG&E requests that the minimum pool be allowed to drop to 100 acre-feet to facilitate the continuation of flows at S-2.

Conditional Approval of Revised Drawdown Curve and Flow Schedule

State Water Board staff has reviewed PG&E's request and finds that further-reduced minimum flows are reasonable given the continued lack of precipitation in the Project area and low storage levels at Relief Reservoir. The alternate minimum flow at S-2 and the reduced minimum pool will not achieve the "Normal" water year⁵ minimum instream flows below Relief Reservoir; however, providing a reduced but constant instream flow is preferable over "Normal" water year flows causing the reservoir to be drawn down below operational control levels by February 2014. PG&E's request for minimum flow and minimum pool variance at Relief Reservoir is approved under the following conditions.

1. An increase in precipitation in the months of January, February, and/or March may allow for the minimum instream flows outlined in the certification to be resumed, given the minimum pool elevation is satisfied and maintained. Immediately following measureable precipitation, signified by an increase in storage and inflow to Relief Reservoir, PG&E shall make a determination whether the storage in Relief Reservoir and inflows will allow the resumption of the required minimum instream flows detailed in the certification while maintaining the

³ The specified maximum and minimum streamflows are made up of flow releases from Relief Reservoir, unregulated accretion flows from Kennedy Creek and other sources, as measured at USGS [United States Geological Survey] gage 11292000 (PG&E gage S-52) in Kennedy Meadows.

⁴ NA: Not Applicable

⁵ Condition 1 of the certification defines the water year types for the Project, based on the predicted inflow to New Melones Reservoir. The 2013 water year was defined as "normal" with 690,000 acre feet of water predicted; the threshold for a dry year was set at 676,000 acre feet and below. Minimum instream flows are set at the previous year's type until a new prediction is made, usually in February of each year, which is why PG&E's request is for a variance from "normal" water year minimum instream flows.

200 acre-feet minimum pool requirement. PG&E shall notify the Deputy Director of its determination within 48-hours and resume the certification minimum streamflows as soon as operationally feasible and no later than 72-hours after an affirmative determination to resume flows. If it is unsafe, due to weather conditions, for PG&E staff to reach Relief Reservoir within 72 hours of when PG&E notifies the Deputy Director with an affirmative determination, PG&E shall include in the determination the timeframe in which PG&E anticipates it can safely make adjustments to the Relief Reservoir outlet.⁶

2. PG&E stated in its request that below approximately 385 acre-feet of storage, the S-2 gage will lose power and remote operation of the outlets will be lost. While the certification acknowledges that between November and March the minimum instream flows become targets, the State Water Board requests that PG&E develop a plan and inform the State Water Board within 10 days of this letter how 5 cfs will be maintained to the extent possible once remote operation of the outlets is lost.
3. By March 28, 2014, PG&E shall provide the Deputy Directory with a summary of the operations at Relief Reservoir during the period of December 1, 2013 to March 15, 2014. Included with this summary, PG&E shall provide a preliminary plan for the operations of Relief Reservoir for the remainder of the 2014 water year. This will aid the State Water Board in assessing the Project conditions before the April 15 Relief Reservoir drawdown curve is presented, per certification condition 2.

Additionally, the State Water Board requests that PG&E provide notice as soon as possible if Relief Reservoir or other locations associated with the Project may require a variance due to the extremely dry weather conditions. Condition 2 of the certification allows the Deputy Director 30 days to respond to variance requests, and providing the earliest possible notice of potential operational problems allows the State Water Board to respond to requests appropriately and best address and limit emergency situations.

If you have questions regarding this letter please contact Mr. Jeffrey Parks at (916) 341-5319 or by email at jeff.parks@waterboards.ca.gov. Written correspondence should be directed to: State Water Resources Control Board, Division of Water Rights, Water Quality Certification Program, Attention: Jeffrey Parks, P.O. Box 2000, Sacramento, CA 95812-2000.

Sincerely,



Barbara Evoy, Deputy Director
Division of Water Rights

Attachment: Letter to PG&E from State Water Board dated December 16, 2013

cc See next page.

⁶ Relief Dam is approximately 3 miles from the nearest access road and is accessible only by hiking in from the road or by helicopter. As the dam is at an altitude of over 7000 feet, winter conditions may prevent immediate access to the dam.

cc: Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

Ms. Pamela Creedon, Executive Officer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

ec: Ms. Beth Martinez
United States Forest Service
Email: bethmartinez@fs.fed.us

Ms. Deborah Giglio
US Fish and Wildlife Service
Email: Deborah_Giglio@fws.gov

Ms. Sarah Bahm
California Department of Fish and Wildlife
Email: Sarah.Bahm@wildlife.ca.gov

Mr. Richard Doble
Pacific Gas and Electric Company
Email: RJD2@pge.com



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

December 16, 2013

Mr. Richard Doble
Pacific Gas and Electric Company
P.O. Box 770000, Mail Code N11C
San Francisco, CA 94177

Dear Mr. Doble:

RESPONSE TO REQUEST FOR APPROVAL OF REVISED RELIEF RESERVOIR DRAWDOWN CURVE AND MINIMUM INSTREAM FLOWS; SPRING GAP-STANISLAUS HYDROELECTRIC PROJECT, FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 2130; TUOLUMNE COUNTY

On December 4, 2013, the State Water Resources Control Board (State Water Board) received a request via email from Pacific Gas and Electric Company (PG&E) for a variance of minimum instream flows at Relief Reservoir for the remainder of December 2013 through March 2014. The minimum instream flows are required by the water quality certification (certification) issued by the State Water Board under Order WR 2009-0039 for the Spring Gap-Stanislaus Hydroelectric Project (Project). PG&E requests the variance to prevent Relief Reservoir from dropping below its minimum pool requirement, assuming that there continues to be minimal precipitation in the watershed.

Background

Condition 2 of the certification states in part:

The Licensee shall operate Relief Reservoir in conformance with the minimum and maximum streamflow requirements shown in the table below, as may be modified by an approved alternate streamflow regime, and to achieve the specified Operational Objectives.¹ Additionally, the Licensee shall maintain a year-round streamflow in Summit Creek between Relief Dam and Kennedy Creek of at least 5 cubic feet per second (cfs), and shall maintain a minimum pool in Relief Reservoir of at least 200 acre-feet.

If the Licensee anticipates at any time that it cannot meet the minimum and/or maximum streamflow requirements it shall notify the [State Water Board] Deputy Director [of the Division of Water Rights], labeling the notification "Compliance Item, Immediate Attention Requested" and provide an alternate streamflow regime and drawdown curve for the year that meets the specified minimum and maximum streamflow requirements and achieves the specified Operational Objectives to the greatest extent feasible. The Deputy Director shall

¹ The Operational Objectives are listed in Condition 2 of the certification.

be provided 30 days to review, and if acceptable, approve the Licensee's alternate streamflow regime.

Minimum and Maximum Streamflows for the Relief Reach (cfs)^{2,3}

Month	Water-Year Type					
	Normal		Dry and Critically Dry		Wet	
	Min	Max	Min	Max	Min	Max
October 1-31	30	50	20	40	40	125
November 1-30	30	60	20	50	40	125
December 1-31	30	60	20	50	40	125
January 1–February 9	30	60	20	50	40	125
February 10–March 9	30	60	20	50	40	125
March 10–April 9	30	60	25	50	40	125
April 10–May 9	60	NA	45	NA	70	NA
May 10–May 31	100	NA	80	NA	150	NA
June 1-30	150	NA	100	NA	250	NA
July 1-31	90	NA	40	NA	200	NA
August 1-31	40	200	20	40	100	300
September 1-30	30	120	20	40	60	200

The California Department of Water Resources (DWR) forecasted an inflow of 690,000 acre-feet of water into New Melones Reservoir during the 2013 water year, which according to the Project certification classified the water year type as "normal." In an email dated December 4, 2013, PG&E notified the Deputy Director that it anticipates that the minimum instream flow requirements set forth in the certification cannot be achieved while still maintaining the minimum pool elevation target at Relief Reservoir of 200 acre-feet through March 2014. PG&E estimates that if the current Relief Reservoir release rate is maintained, the minimum pool will be reached on January 10, 2014, after which time PG&E would lower the reservoir below the prescribed minimum pool level and limit releases from the reservoir to equal the natural inflow⁴ to the reservoir. This situation would not ensure a constant instream flow below Relief Reservoir. PG&E provided an alternate streamflow regime and drawdown curve for the months of December, January, February, and March, and is requesting the review and approval of these items per Condition 2 of the certification.

² The specified maximum and minimum streamflows are made up of flow releases from Relief Reservoir, unregulated accretion flows from Kennedy Creek and other sources, as measured at USGS [United States Geological Survey] gage 11292000 (PG&E gage S-52) in Kennedy Meadows.

³ NA: Not Applicable

⁴ Relief Dam's low level outlet elevation is not able to release water when the reservoir has approximately 150 acre-feet of water remaining.

Conditional Approval of Revised Drawdown Curve and Flow Schedule

State Water Board staff has reviewed PG&E's request and finds that the reduced minimum flows are reasonable given the lack of precipitation in the Project area. Although the alternate streamflow regime and drawdown curve will not achieve the "Normal" water year minimum instream flows below Relief Reservoir, providing a reduced but constant instream flow is preferable over ceasing the certification's instream flow releases on or about January 10, 2014 and relying on the natural inflow to the reservoir to provide hydrologic continuity downstream. PG&E's request for approval of the revised drawdown curve and flow schedule is approved under the following condition:

- An increase in precipitation in the months of December, January, February, and/or March may allow for the minimum instream flows outlined in the certification to be resumed. Immediately following measureable precipitation, signified by an increase in storage and inflow to Relief Reservoir, PG&E shall make a determination whether the storage in Relief Reservoir and inflows will allow the resumption of the required minimum instream flows detailed in the certification. PG&E shall notify the Deputy Director of its determination within 48-hours and resume the certification minimum streamflows as soon as operationally feasible and no later than 72-hours of an affirmative determination to resume flows. If it is unsafe for PG&E staff to reach Relief Reservoir within 72 hours due to weather conditions at the time PG&E notifies the Deputy Director with an affirmative determination, PG&E shall include in the determination the timeframe in which PG&E can safely make adjustments to the Relief Reservoir outlet.⁵

Additionally State Water Board staff would like to call attention to the portions of Condition 2 designed to address the current situation:

By November of each year, the Licensee shall forecast the inflow to Relief Reservoir for the period December through March, and set the Relief Dam outlet gate at an opening to achieve the streamflow in the approved Relief Reservoir drawdown plan...

The Deputy Director shall be provided 30 days to review, and if acceptable, approve the Licensee's alternate streamflow regime.

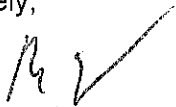
State Water Board staff respectfully requests that PG&E make a determination of the need to revise the Relief Reservoir drawdown curve or streamflow requirements as early as possible in November of each year. A timely request for modification of these elements will allow me time to make an informed assessment of the request and then take appropriate action. It was also mentioned in the December 9, 2013 Relief Reservoir modification approval letter from the Stanislaus National Forest (Forest Service) that PG&E would be revising the drawdown curve at least monthly, and that a general reassessment of the situation will be made when the February 2014 DWR water year forecast is released. PG&E shall include the State Water Board on any future correspondence with the Forest Service regarding Relief Reservoir. The State Water Board agrees with the Forest Service that PG&E should provide the full 12-month period with any future revised drawdown curves so staff can evaluate the existing situation within the broader perspective.

⁵ Relief Dam is approximately three miles from the nearest access road and is accessible only by hiking in from the road or by helicopter. As the dam is at an altitude of over 7,000 feet, winter conditions may prevent immediate access to the dam.

If you have questions regarding this letter please contact Mr. Michael Maher, Project Manager, at (916) 341-5408 or by email at michael.maher@waterboards.ca.gov. Written correspondence should be directed to:

State Water Resources Control Board
Division of Water Rights
Water Quality Certification Program
Attention: Michael Maher
P.O. Box 2000
Sacramento, CA 95812-2000

Sincerely,



Barbara Evoy, Deputy Director
Division of Water Rights

cc: Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

Ms. Pamela Creedon, Executive Officer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

Mr. Ross Jackson
Pacific Gas and Electric Company
2730 Gateway Oaks Drive, #220
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ec: Ms. Beth Martinez
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Mr. Richard Doble

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