144 FERC ¶ 61,007
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;
Philip D. Moeller, John R. Norris,
Cheryl A. LaFleur, and Tony Clark.

Grand River Dam Authority Project No. 1494-416

ORDER DENYING REQUEST FOR TEMPORARY VARIANCE FROM RULE CURVE REQUIREMENTS OF ARTICLE 401

(Issued July 3, 2013)

1. On March 20, 2013, and supplemented May 3 and May 16, 2013, Grand River Dam Authority (GRDA) filed a request for a drought-based temporary variance from the requirements of the reservoir elevation rule curve required by Article 401 of the license for the Pensacola Project No. 1494, located on the Grand/Neosho River[1] in Craig, Delaware, Mayes, and Ottawa Counties, Oklahoma. As discussed below, we deny GRDA's request in light of significant improvements in drought conditions now forecasted for the project area.

BACKGROUND

2. On April 24, 1992, the Commission issued a new license to GRDA for the continued operation of the 105.18-megawatt Pensacola Project.[2] The project, which operates in a peaking mode, includes a 5,920-foot-long, 147-foot-high dam; a reservoir (Grand Lake O' the Cherokees, or Grand Lake); a powerhouse at the base of the dam; and a 1.5-mile-long tailrace and spillway channel in the riverbed below the dam.

[1] The upper reach of the river above Grand Lake is called the Neosho River, and the reach below the Pensacola Dam is called the Grand River. For this reason, the river is sometimes referred to as the Grand/Neosho River.

[2] *Grand River Dam Authority*, 59 FERC ¶ 62,073 (1992).

3. Grand Lake has a surface area of about 46,500 acres at a pool elevation of 745 feet Pensacola Datum (PD),[3] with about 522 miles of shoreline that extends about 66 miles upstream from the dam. Grand Lake is used for multiple purposes including power generation, recreation, wildlife enhancement, and flood control. Dedicated flood storage is provided between elevations 745 and 755 feet PD. When reservoir elevations are within the limits of the flood pool, the U.S. Army Corps of Engineers (Corps) directs the water releases from the dam under the terms of a 1992 Letter of Understanding and Water Control Agreement between the Corps and GRDA to address flooding both upstream and downstream of Grand Lake.[4]

4. When reservoir elevations are below the limits of the flood pool, GRDA operates the project pursuant to the terms of its license. Article 401 of the license, as amended in 1996,[5] requires GRDA to operate the Pensacola Project to maintain (to the extent practicable) the following target reservoir surface elevations (rule curve), except as necessary for the Corps to provide flood protection:

Period	Reservoir Elevation, in Feet (Pensacola Datum)
May 1 through May 31	Raise elevation from 742 to 744
June 1 through July 31	Maintain elevation at 744
August 1 through August 15	Lower elevation from 744 to 743
August 16 through August 31	Lower elevation from 743 to 741
September 1 through October 15	Maintain elevation at 741
October 16 through October 31	Raise elevation from 741 to 742
November 1 through April 30	Maintain elevation at 742.

[3] Pensacola Datum (PD) is 1.07 feet higher than National Vertical Geodetic Datum (NVGD), which is a national standard for measuring elevations above sea level. Reservoir levels discussed in this order are in PD values unless otherwise specified.

[4] Section 7 of the Flood Control Act of 1944 (Pub. L. No. 78-534, 58 Stat. 890, 33 U.S.C. § 709 (2006)) directs the Secretary of the Army to prescribe regulations for the use of storage allocation for flood control or navigation at all reservoirs constructed wholly or in part with federal funds. A federal grant provided a substantial part of the funding for the construction of the Pensacola Project.

[5] *Grand River Dam Authority*, 77 FERC ¶ 61,251 (1996) (1996 Order).

5. The rule curve approved in the 1996 Order was developed to better balance a broad range of interests, as referenced above, including power generation, recreation, wildlife enhancement, and flood control.[6]

6. Since the 1996 Order, and prior to this proceeding, GRDA has applied to the Commission five times for either temporary variances from, or permanent changes to, the reservoir elevations specified in the rule curve. These prior applications were either withdrawn by GRDA or denied by the Commission, with the exception of an application for temporary variance which was approved in 2012.[7]

2012 Temporary Variance

7. In the summer of 2012, a significant drought drastically reduced inflows to Grand Lake, and high air temperatures and wind greatly increased loss of water through evaporation. Based on deteriorating conditions, GRDA, on July 24, 2012, requested a temporary variance from the Article 401 rule curve in order to store water above the curve in late summer and early fall. On August 15, 2012, Commission staff authorized the temporary variance.[8] Pursuant to the order, GRDA operated the project during the variance period based on decisions reached in weekly teleconferences with state and

[6] The elevations in the rule curve are based on recommendations from the Grand/Neosho River Committee, a group formed in 1993 by the offices of U.S. Congressional delegations from Kansas and Oklahoma and consisting of representatives of towns, chambers of commerce, counties, state resource agencies from Kansas and Oklahoma, the Kansas-Oklahoma Flood Control Alliance, the Neosho Basin Advisory Committee, and lakeshore landowners associations.

[7] *See* July 25, 2011 Commission staff letter dismissing, for lack of adequate information, April 6, 2011 request for a temporary (two-year) variance to enhance recreational boating; April 4, 2006 Commission staff letter denying March 13, 2006 request for temporary variance to respond drought conditions, on basis that variance not warranted based on forecasted conditions; June 17, 2004 letter from GRDA withdrawing its January 26, 2004 request to permanently amend Article 401 rule curve in order to enhance recreation, water quality, and wildlife habitat; and August 16, 1999 letter from GRDA withdrawing its June 2, 1999 request for a temporary variance (for calendar year 1999) to allow for an alternative plan for millet seeding.

[8] *Grand River Dam Authority,* 140 FERC ¶ 62,123 (2012).

federal agencies and other entities.[9] During each teleconference, the participants discussed forecasted drought conditions, appropriate releases to maintain downstream dissolved oxygen (DO) concentrations, operations at GRDA's downstream Salina Pumped Storage Project (Salina Project),[10] and when it would be appropriate to terminate the temporary variance. The teleconference participants determined that the variance should be terminated when the elevation of Grand Lake fell to the rule curve, which would be on or before October 17, 2012. In response, Commission staff terminated the variance on October 16, 2012, and required GRDA to resume operations in accordance with Article 401.[11]

GRDA's PROPOSAL

8. On March 20, 2013, and supplemented May 3 and May 16, 2013, GRDA filed a request for a temporary variance for 2013 based on drought conditions in the project area and forecasts for intensifying drought in the coming months. GRDA requests that it be allowed to forgo the rule curve's late summer drawdown (from elevation 744 on August 1 to elevation 741 on August 31). Instead, it would begin to implement flow releases at lower rates equivalent to 0.03 to 0.06 foot of reservoir elevation per day, the same rates targeted during the 2012 variance.[12] Based on calculations made at the time of the request, GRDA estimates that, as a result of these releases, reservoir elevations would remain above the rule curve until approximately September 20, 2013.

[9] Teleconference participants included representatives from the Corps, U.S. Fish and Wildlife Service, Oklahoma Water Resources Board, Oklahoma Department of Wildlife Conservation, City of Miami (OK), and Commission staff.

[10] The Salina Pumped Storage Project No. 2524 was licensed in 1966 with an expiration date of November 30, 2015. *Grand River Dam Authority,* 35 F.P.C. 3 (1966). The Salina Project is a pumped storage project that uses the reservoir of GRDA's Markham Ferry Project No. 2183 as its lower reservoir.

[11] *Grand River Dam Authority,* 141 FERC ¶ 62,044 (2012).

[12] GRDA's March 20, 2013 variance request included storage of water above the rule curve prior to May 31, 2013, to aid in maintaining reservoir elevations in the summer. In its May 3, 2013 supplement, GRDA removed this component of its request.

9. The additional water in the reservoir would be available to GRDA to make releases, if necessary to ensure that sufficient water is available for the operation of GRDA's downstream Salina and Markham Ferry Projects[13] and to maintain DO levels downstream of its projects. Between approximately September 20 and October 24, reservoir elevations could be above or below the rule curve, depending on specific release rates. Under the proposal, GRDA would follow the 2012 process (i.e., decisions would be reached in weekly teleconferences with agencies and other entities) to determine specific release rates and the termination date for the temporary variance.

10. Due to anticipated drought conditions, GRDA also requests a variance to draw down the lake levels below the rule curve from May 1 to about October 17, if it becomes necessary for GRDA to make additional releases to mitigate low DO levels downstream of its projects.

11. In support of its request, GRDA explains[14] that the Corps recently began storing more water in the Corps' upstream John Redmond Reservoir by increasing its normal maximum reservoir elevation from 1,036 to 1,041 feet mean sea level (msl). GRDA notes that, at the time of its March 20 variance request, the elevation of John Redmond Reservoir was 4.68 feet below normal elevation due to regional drought conditions and that, due to the recent increase in normal maximum reservoir elevation from 1,036 to 1,041 msl, refilling the reservoir would further restrict inflows to the downstream Grand Lake. In addition, GRDA states that the City of Tulsa has indicated that it might begin taking up to 60 million gallons per day (mgd) of raw water from Lake Hudson, the reservoir for GRDA's downstream Markham Ferry Project, because of problems with one of its primary raw water sources. GRDA states that Tulsa making such withdrawals could require GRDA to release more water from the Pensacola Project in order to ensure that sufficient water is available for the operation of GRDA's downstream Markham Ferry and Salina Projects and for maintenance of DO levels downstream of Markham Ferry.

12. GRDA included with its March 20, 2013 request documentation of its consultation with state and federal resource agencies, Indian tribes, local municipalities, and entities who participated in the weekly teleconferences during the 2012 variance. The Oklahoma

[13] The Markham Ferry Project No. 2183 was relicensed in 1966. *Grand River Dam Authority,* 106 FERC ¶ 62,112 (2006).

[14] *See* letter from the Corps dated March 15, 2013, included in the March 20, 2013 variance request.

Department of Wildlife Conservation (Oklahoma DWC)[15] stated that, although Oklahoma was in drought, significant spring rains could change that situation and instead cause flooding. The agency further noted that it was unclear what effects withdrawals by the City of Tulsa would have on Lake Hudson, or what effects the Corps' additional storage in John Redmond Reservoir would have on inflows to Grand Lake.[16]

13. On March 19, 27, and 29, 2013, respectively, Mr. Al Newkirk, the Miami (OK) Special Utility Authority, and the City of Miami filed comments opposing the temporary variance, arguing that higher water levels in Grand Lake could increase the risk of upstream flooding.[17] On March 28, 2013, GRDA filed a letter from Grand Lakers United Enterprise, an organization representing shoreline property owners and users of Grand Lake, supporting GRDA's request.[18]

14. On April 18, 2013, the U.S. Fish and Wildlife Service (FWS) filed comments (dated March 28, 2013) stating that a rule curve variance would only be needed under very severe drought conditions. The FWS notes that GRDA was able to meet demands during the 2011 drought without any variances, and that current inflows and drought predictions are more optimistic than those provided in the request. The FWS also noted that the proposed variance could increase the risk of flooding in nearby caves used by federally-listed bats, and that the Commission should determine whether it needs to consult with the FWS under section 7 of the Endangered Species Act. [19]

15. On May 3, 2013, GRDA amended its variance request[20] and responded to the comments made by Oklahoma DWC, FWS, and other entities.

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[15] *See* Oklahoma DWC letter dated March 6, 2013, included in the March 20, 2013 variance request.

[16] Other comments included in the March 20, 2013 application for the most part addressed the means of communication that would be used if the variance were granted.

[17] *See,* respectively, filings of March 19, 27, and 29, 2013.

[18] GRDA's filing of March 28, 2013.

[19] *See* March 28, 2013 letter, filed on April 18, 2013.

[20] GRDA removed its proposal to store water above the rule curve during May.

16. On May 16, 2013, the Commission issued a public notice of GRDA's variance request. Mr. Dewane Dixon, Mr. N. Larry Bork (on behalf of 445 residents and businesses of Ottawa County, OK), and Dr. Mark Osborn filed comments opposing any increases in reservoir elevation that could increase flooding, and stating that the drought in Oklahoma is over. The City of Miami and the Miami Special Utility Authority, jointly, filed a timely motion to intervene in opposition to the temporary variance, arguing that the potential benefits would not justify the risks of flooding and drought conditions are no longer forecasted for the area.[21] On June 13, 2013, GRDA filed a response to the motion to intervene and some of the comments.

DISCUSSION

17. GRDA requests a variance from the project's reservoir elevations required by Article 401's rule curve based on forecasts for continuing significant drought conditions in 2013. However, as noted by many of the comments opposing the variance request, there is no longer a forecast for drought conditions that would affect the project.

18. In 2012, Commission staff approved GRDA's temporary variance request because the project area was experiencing extreme to exceptional drought conditions, and the National Drought Mitigation Center (Drought Center) was forecasting extreme to exceptional drought conditions for the coming months.[22] Unlike in 2012, current conditions indicate that the project area and its drainage are not in a drought or perhaps are only in the very low levels of drought, and forecasts for the next several months do not include any drought conditions.[23] In fact, heavy precipitation recently caused the City of Miami to close several roads and a municipal pool due to minor flooding.

19. As to GRDA's concern that the Corps' decision to increase the amount of water stored in its upstream John Redmond Reservoir would decrease flows to Grand Lake, we

[21] Timely, unopposed motions to intervene are granted by operation of Rule 214(c) of the Commission's Rules of Practice and Procedure. 18 C.F.R. § 385.214(c) (2012).

[22] The Drought Center is based in the School of Natural Resources at the University of Nebraska-Lincoln. The Drought Center works in cooperation with the U.S. Department of Agriculture, National Weather Service, National Oceanic and Atmospheric Administration, U.S. Geological Survey, and other federal and state agencies. *See* Drought Center's archived maps for July 10 and 24, 2012, and August 14, 2012, which show conditions around the time of the 2012 variance request. http://droughtmonitor.unl.edu/archive.html.

[23] *See* http://droughtmonitor.unl.edu/.

note that, as of late morning on June 20, 2013, the water elevation in John Redmond Reservoir was 1,043.73 feet, or 2.73 feet above the new normal maximum pool elevation of 1,041.0.[24] Thus, it appears that the amount of water in the Corps reservoir was increased without adverse impacts to Grand Lake.

20. GRDA is concerned that the City of Tulsa, under a contract it has with GRDA, might withdraw water from GRDA's downstream Markham Ferry Project's Lake Hudson.[25] GRDA states that, if sufficient rainfall is not available, Tulsa making such withdrawals could place further constraints on its operation of the Pensacola Project during the drought. However, as noted above, there has now been sufficient rainfall in the area such that there is no forecast for drought conditions in the coming months.

21. Because current conditions indicate that the project area and its drainage are not in a drought or are only in the very low levels of drought, and forecasts for the next several months do not include any drought conditions, we find that a temporary variance in 2013 is not warranted. As our decision here is based on current conditions, GRDA is not precluded from filing future requests for temporary variance from Article 401's rule curve. As evidenced from Commission staff's approval of the temporary variance in 2012, the Commission will enable an adaptive management approach to address mitigating circumstances, when warranted. However, as discussed above, Article 401 of GRDA's license requires it to maintain the rule curve in order to balance a broad range of interests, and GRDA has not demonstrated that a variance from this rule curve is currently needed to mitigate drought conditions. In the event that GRDA files a request for temporary variance in the future due to severe and/or deteriorating circumstances, the Commission will consider measures on an as needed basis to alleviate associated concerns.

The Commission orders:

(A) The Grand River Dam Authority's request, filed March 20, 2013, and supplemented May 3 and 16, 2013, for a temporary variance in 2013 from the reservoir elevation rule curve stipulated under Article 401 of the license for the Pensacola Project is denied.

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[24] http://www.swt-wc.usace.army.mil/JOHN.lakepage.html.

[25] Lake Hudson serves as a secondary water source for Tulsa's municipal water supply. Due to taste and odor problems with its primary water supply source (presumably a direct result of the drought), from November 2012 through February 2013, Tulsa withdrew water from Lake Hudson. *See* March 20, 2013 variance request at 2-3.

(B) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the Federal Power Act, 16 U.S.C. § 825*l* (2006), and the Commission's regulations at 18 C.F.R. § 385.713 (2011).

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.