

May 14, 2015

MEMORANDUM TO: Jennifer L. Dixon-Herrity, Chief
Environmental Projects Branch
Division of New Reactor Licensing
Office of New Reactors

FROM: Patricia J. Vokoun, Project Manager **/RA/**
Environmental Projects Branch
Division of New Reactor Licensing
Office of New Reactors

SUBJECT: SUMMARY REPORT OF THE TELECONFERENCE ON MARCH 27,
2015, BETWEEN THE LOWER COLORADO RIVER AUTHORITY
AND THE U.S. NUCLEAR REGULATORY COMMISSION STAFF
CONCERNING THE ON-GOING DROUGHT IN SOUTHERN TEXAS
AND ITS IMPACT ON WATER QUALITY IN THE LOWER
COLORADO RIVER

SUMMARY:

The U.S. Nuclear Regulatory Commission staff met with representatives of the Lower Colorado River Authority (LCRA) to obtain answers to several questions that the staff developed concerning water quality in the Colorado River as a result of the continuing drought in south Texas. LCRA responses to staff questions were discussed.

DISCUSSION POINTS:

Mark Notich greeted telecom attendees, introduced the objective of the meeting, went over some administrative items, and then had attendees introduce themselves and their affiliations. The public meeting agenda can be found NRC's Agencywide Documents Access and Management System (ADAMS) at [ML15086A160](#). LCRA and NRC discussed questions (found at [ML15076A403](#).)

The NRC began the discussion with questions provided to LCRA.

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1. The informational memo dated March 13, 2009, indicates that Structural Equation Models (SEM) do provide additional management tools to help understand the impacts of changing flows at Bay City Dam on salinity near the South Texas Project (STP) diversion. If you used SEMs to forecast salinities near the STP diversion, could you share your findings/observations on the forecast of salinities during drought conditions in general and specifically for the 2011-2013 drought (low average flows were observed at the U.S. Geological Survey gage near Bay City)?

Discussion: The LCRA mentioned that they measure flow at Bay City and in Matagorda Bay, and salinities just in the Bay. When asked twice they restated that there are no salinity values for the river. However, they do measure salinity within the bay. Brian Cook (LCRA) mentioned that despite the drought, there have been several inflow events which have been sufficient to flush the salinities from the river and reduced them in the Bay to near fresh levels.

2. In the final environmental impact statement (FEIS) that was published in 2011, the NRC staff documented its evaluation of water-related impacts to the surrounding environment from operation of proposed Units 3 and 4. The staff evaluation was based on the information available until that time. Since the recent drought (2011 through 2014) data is new information, the staff needs to evaluate if the effect of the recent drought on the availability of water is significant enough that it might warrant alteration of previous staff determination of water-related impact level. In order to help us better understand the water availability issue during severe drought conditions, please discuss the effect of recent drought (2011 through 2014) on actual pumping conditions that STPNOC has experienced, and if there were noticeable effects on the water users of the area.

Discussion: The LCRA mentioned that Highland Lakes are affected differently than the lower Colorado River during droughts. The current drought has been harder on Highland Lake region but Lower River has been adequate. This is the drought of record for the Highland Lake regions. Downstream interruptible customers have been affected in recent years and will likely be affected this year. In 2012, 2013, and 2014, irrigation operations were curtailed. This is probably going to be the new drought of record; however, 2011 is the single worst year on record.

3. Will you guide us in locating or having access to the document "Technical Memorandum, Project 491361, April 24, 2014. Lower Basin Reservoir Project, Characteristics of Off-Channel Return Flows into the Colorado River and Implications for Channel Morphology?"

Discussion: The LCRA is to provide this document to NRC.

4. Since publication of the Matagorda Bay Freshwater Inflow Needs Study in August 2006, has the LCRA conducted any biological surveys within Segment 1401: Colorado River Tidal? If so, could you discuss the results of those surveys?

Discussion: The LCRA doesn't do biological surveys. Texas Parks and Wildlife occasionally do surveys. The LCRA is not aware of any biological surveys since 2011 in the tidal portion of river, but there have been surveys in Matagorda Bay. No survey has been done since 2006. The LCRA is not aware of anything recent and is not aware of any other studies since 2011.

5. When asked about groundwater information, the LCRA recommended that NRC contact Coastal Plains Groundwater Conservation District for questions regarding groundwater.

ACTIONS ITEMS:

The LCRA is to provide this document to NRC, "Technical Memorandum, Project 491361, April 24, 2014. Lower Basin Reservoir Project, Characteristics of Off-Channel Return Flows into the Colorado River and Implications for Channel Morphology."

The LCRA is to provide a website for the local groundwater district.

ATTENDEES

- Lynn Clancey, LCRA General Counsel
- David Walker, River Operations Manager
- Brian Cook, Water Quality Supervisor and Bay Biologist
- Stephanie Scott, Communications
- David Walker, LCRA River Manager
- Mark Notich, NRC Environmental PM
- Patricia Vokoun, NRC Environmental PM
- John Fringer, NRC Environmental PM
- Mohammad Haque, NRC Surface water Hydrologist
- Daniel Barnhurst, NRC groundwater Hydrologist
- Nancy Kuntzleman, NRC Aquatic Ecologist
- Marvin Lewis, Public
- Scott Head, NINA
- Peggy Travis, STPNOC

Docket Nos. 52-012 and 52-013

Enclosures:
As stated

cc w/encls: See next page

5. When asked about groundwater information, the LCRA recommended that NRC contact Coastal Plains Groundwater Conservation District for questions regarding groundwater.

ACTIONS ITEMS:

The LCRA to provide this document to NRC, "Technical Memorandum, Project 491361, April 24, 2014. Lower Basin Reservoir Project, Characteristics of Off-Channel Return Flows into the Colorado River and Implications for Channel Morphology."

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