

LETTER

In reply refer to:
P-_____ - _____(ST)
NATDAM - (ST)

Subject: New Focused Spillway Assessments

Dear _____:

Recent events involving the operation of spillways for the Oroville Dam in California have brought renewed attention to potential failure modes associated with both concrete chute spillways and unlined spillways at dams. As a result, FERC is requiring detailed assessments of similar spillways to be completed this year at high and significant hazard dams. We have identified specific dams within your inventory that should receive a focused spillway assessment by December 31, 2017. In addition, we will require a focused PFMA to be completed in addition to or during our annual dam safety inspection. Please coordinate with us ahead of the inspection in order to ensure all necessary participants will be available. Also, please make any arrangements necessary and coordinate any special personal safety requirements to allow our inspector access to complete a thorough close visual inspection of the spillway(s) during the annual inspection at the following dam(s):

- Dam 1
- Dam 2

As part of the spillway assessment, we are requesting that you perform a detailed review of all design, construction, inspection, foundation information, and monitoring documentation available for the spillway(s); and perform a close visual inspection of the entire spillway.

Relevant information for your review should include general foundation rock/soil composition and quality, geotechnical investigation reports, underdrain system details, inspection reports, performance monitoring, and construction photographs. Areas of focus for the visual inspection should include typical potential failure modes associated with concrete spillways. These typically include conditions that could result in cavitation and/or slab-jacking such as: cracking or other evidence of subsidence, 'sounding' the spillway slab with a hammer or rod for voids underneath, construction joint conditions for spalling concrete or cavitation, adverse joint offsets, and condition of joint filler and waterstops. Conditions at the downstream end of the spillway should be evaluated for potential head-cutting conditions that may progress upstream. Gate operation procedures should be reviewed to evaluate the effect of mis-operation or gate failure.

The document review and assessments should be completed as soon as practicable and a summary of the results should be submitted to our office. Please provide a plan

and schedule to complete the assessment to this office within 30 days of the date of this letter. If your review of project documents and detailed spillway assessment indicate insufficient information to fully evaluate the stability and performance of your spillway(s), please provide a second plan and schedule not later than July 14, 2017 to this office for our review and comment.

A fully operational and functional spillway is critical to safe dam operation. We appreciate your cooperation in this area of dam safety. If you have any questions, please contact me at (xxx) xxx-xxxx.

Sincerely,

Regional Engineer