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December 8, 2016

Dr. David Hargett
Conestee Foundation Inc.
P.O. Box 9111
Greenville, SC 29604

RE: Inspection of Lake Conestee Dam
D-2876, Greenville County

Dear Dr. Hargett:

On December 1, 2016, the Department conducted a preliminary inspection of the above referenced dam. Also present during the preliminary inspection as representatives of the Conestee Foundation, Inc., were Dr. David Hargett and John Gardner. Your assistance with the inspection was greatly appreciated.

Based on observations made during the preliminary inspection, the age and composition of the dam structure and previous documentation provided to the Department by the Conestee Foundation, the Department is requiring **a detailed inspection, as defined in S.C. Reg. 72-1, by a qualified South Carolina licensed professional engineer. Documentation of this inspection, and all supporting documentation, must be submitted to the Department on or before April 17, 2017.** In addition, the owner must complete all routine maintenance items (removal of vegetation), by this date.

Below is a list of the major items of concern noted during the inspection. See the inspection report for detailed requirements/recommendations.

- Deterioration of mortar between joints and along the crest of the dam was observed. Continue to monitor these areas to ensure that the deterioration does not worsen to a point that would affect the structural stability of the dam. As part of the detailed inspection, these areas must be evaluated.
- Multiple areas of seepage were observed throughout the downstream face and toe of the dam on both the left and right side. According to laboratory results provided by the Conestee Foundation, the test samples of the seeps and ochre contain high levels of hazardous constituents. The volume of flow as well as the presence of hazardous constituents may be detrimental to the mortar joints and fissures currently present and may accelerate the deterioration of these joints. As part of the detailed inspection, these areas must be evaluated to determine whether it is affecting the safety of the dam and a plan developed to address these concerns.
- An updated Emergency Action Plan was provided to the department on May 26, 2015. Please review the plan and provide an updated plan if the

information has changed from the May 26, 2015 submittal. Notify the Department that no changes are required or submit the updated Emergency Action Plan by **February 17, 2017.**

Return all documentation required by this letter to:

Dam Safety Program
SCDHEC Bureau of Water
2600 Bull Street
Columbia, SC 29201
Or by email to: response@dhec.sc.gov

Provisions of the S.C. Dams and Reservoirs Safety Act require the owner to notify the Department within 30 days of transferring title or the control of his dam to someone else. You must notify our office should control of your dam be transferred. Enclosed is a copy of the Notification Change for Ownership of South Carolina Regulated Dams.

Response(s) to the items in this letter and associated report are required by the above-listed dates. If timely, adequate responses are not received, then this matter may be referred to the Bureau of Water's Enforcement Section for resolution, which may involve assessment of civil penalties.

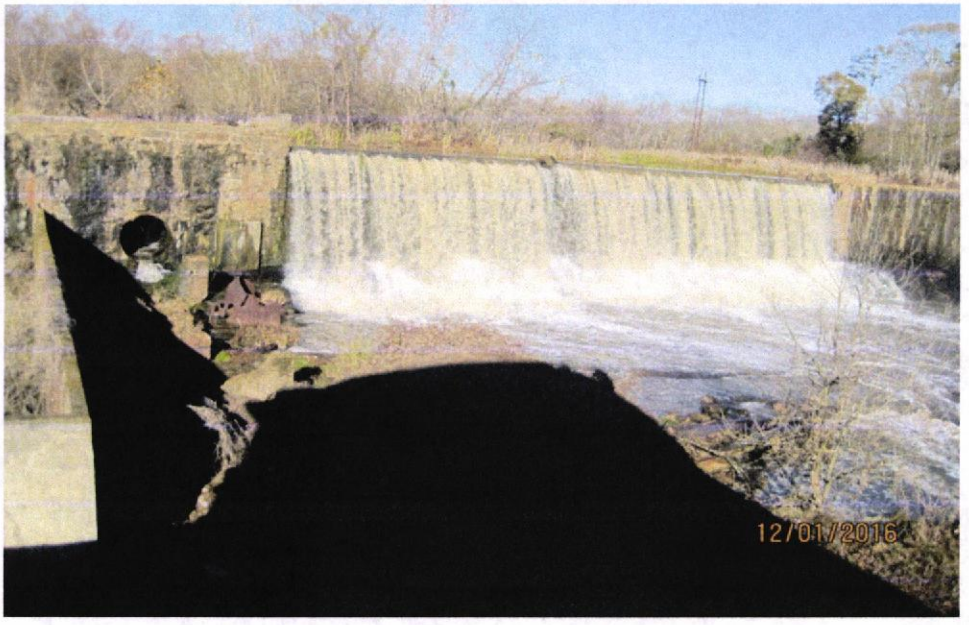
Should you have questions regarding the content of this letter, or wish to discuss any of the findings, requirements, schedules, and/or deadlines contained herein, please feel free to contact me at (864) 372-3092 or by email at Owensc2@dhec.sc.gov.

Sincerely,

Charles Owens
Regional Engineer Associate
Upstate EQC Region-Greenville and Spartanburg

cc: John McCain, P.E. DHEC, Bureau of Water
Angela Gorman DHEC, Bureau of Land & Waste Management

1. Overall view of the dam



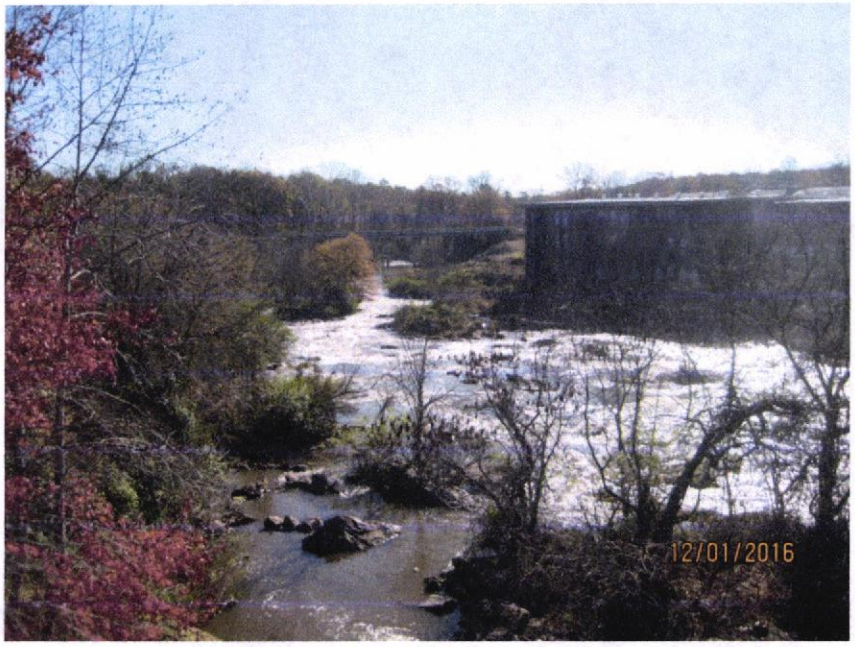
2. Primary spillway, repaired sluice gate and penstock

3. Seepage and ochre present on the right face of the dam

4. Closer look at the seepage and ochre present on the right face

5. Seepage flows along the right toe

6. Dam crest



7. Downstream view from the dam

8. Seepage and ochre present on the left face

9. Seepage flows along the left toe of the dam

10. Closer view of the seepage and ochre along the left face

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Preliminary Inspection Report for South Carolina Regulated Dams and Impoundment Structures Regulations R.72-1 through R.72-9

Section I (Owner's Information)

A. Dam Number: D 2876 & Hazard Class 2

B. Name of Dam: Lake Conestee

C. Inspection Date (12/01/2016) & Time: 9:15 a.m.

D. Date of Last Inspection: (12/18/2014)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins, Chuck Owens

H. Owner's Name: Conestee Foundation Inc.

I. Contact Person (if different from above): Dave Hargett, PhD

J. Dam Owner's or Contact Person's Phone Numbers:

Home (___) ___-____

Office (864) 277-2004

Other (864) 787-8160

K. Dam Owner's or Contact Person's mailing address:

Address 1 P.O. Box 9111

Address 2 (optional)

City Greenville, State SC Zip Code 29604-____

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

a) Satisfactory ☐ b) Fair ☐ c) Poor ☑ d) Unsatisfactory ☐ e) Not Rated ☐

Section III (Dam Inspection Checklist)

A. Dam Crest

i. Vegetation (grass, trees weeds)? Vegetation was observed growing out of portions of the masonry. This vegetation should be removed.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? No erosion was observed; however, deterioration of the mortar in some spots was observed. This should be monitored to ensure that the situation does not worsen.

v. Any visible settlement, misalignment or cracks? Cracks in the mortar were observed.

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Grass, weeds, vines. See Section IV, Item 1

ii. Animal activity observed? None observed. See Section IV, Item 1

iii. Any obvious alterations or repairs made? None observed. See Section IV, Item 1

iv. Erosion observed on upstream slope? None observed. See Section IV, Item 1

v. Settlement or cracks visible in slope? Cracks in the mortar joints were observed. See Section IV, Item 1

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? On the right side, a small amount of vegetation was observed. On the left side, more vegetation was observed. The vegetation must be cut or treated and removed.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? Yes, the permitted repairs to the sluice gate were observed. A few small cracks were observed in the concrete surface. Monitor these to ensure that they do not worsen.

iv. Erosion observed on down stream slope? No erosion was observed; however, deterioration of the masonry face was observed on the left side along the toe. Portions of the face were missing near the areas of seepage.

v. Settlement or cracks visible in slope? Cracks in the mortar were observed throughout the face.

vi. Toe drains flowing? The drain on the right side of the previously filled sluice gate on the left was dripping. Monitor to ensure that the flow does not increase.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, flowing seeps were observed at multiple locations on the right and left sides. According to Dr. Hargett, the ochre has been tested and found to contain hazardous constituents. See Section IV, Item 3.

D. Primary Spillway

i. Any visible deterioration of structure? The primary spillway could not be observed due to heavy flows. The penstock also acts as a spillway. Deterioration of the mortar was observed along the crest of the secondary spillway. See Section IV, Item 2.

ii. Is there an obvious need to repair or replace trash rack? Not applicable

iii. Any noticeable problems with debris? None present at the time of the inspection.

iv. Is valve or gate present? No

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? The penstock was reviewed as the outlet pipe. Flows were observed through the penstock. According to Dr. Hargett, the structure around the penstock was designed to leak.

ii. Describe any deflection or damage observed to the pipe: None observed

iii. Visible condition of outlet channel: Some debris was observed in the channel below the penstock. This should be removed. The main channel was in good condition with little erosion observed.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? None observed. All of the masonry spillways were reviewed under item III, Section A.

ii. Animal activity observed? None observed for any spillways.

iii. Any noticeable deterioration in the approach or discharge channel? Not applicable

iv. Any visible deterioration of structure's crest? See Section III, Item A

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification? No

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? Yes, a revised version was submitted to the Department on May 26, 2015.

ii. Does EAP contains emergency alert notification plan? If so, when was it last updated? Yes

iii. Does EAP contain specific actions to take if the dam has failed or is near failure? Yes

Section IV (Conclusions)

General comments and recommendations:

1. The majority of the upstream face could not be observed due to current water level and sediment accumulations along the face of the dam. Visibility of the upstream face was limited to approximately 3 to 4 feet above the elevation of the primary spillway.

2. Dr. Hargett provided the Department an up to date survey of the dam's crest. Included in this survey are the locations, widths and elevations of the primary, secondary and auxiliary spillways.

3. Excessive seeps were observed on both the right and left downstream face of the dam. The seepage has been tested by the owner and hazardous constituents were present in the samples. These components may be detrimental to the mortar joints and could possibly accelerate the deterioration of these joints. These areas must be examined by a licensed SC professional engineer and a plan developed to address these issues.

Note: Dr. Hargett and John Gardner were present during the inspection

All directions given looking downstream

Preliminary Dam Inspection Disclaimer:

The information contained in the preliminary inspection report is intended as an aid to identify those dams that require maintenance and/or repair actions to reduce their danger to human life or property only. It is not intended as professional engineering or consulting advice for conditions or situations present at individual dams. It is not a substitute for a detailed inspection, nor does it replace the need for services provided by registered professional engineers. If your dam is experiencing an unusual situation consult with engineering professionals to find an appropriate remedy. Preliminary inspections conducted by South Carolina Department of Health and Environmental Control (the Department) are provided "AS IS" and "as available", without warranties of any kind, either express or implied. Preliminary inspections consist only of a visual but technical examination of the dam and its appurtenant works. All findings are based solely on visual observations of the inspector at the time of the inspection. Common law holds that the storage of water is a hazardous activity and the Department does not assume any responsibility or risk for your actions or inactions. Dam owners are responsible for the safe operations and maintenance of their impoundment structures.