

Matt Blunt, Governor * Doyle Childers, Director
State of Missouri

DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov
573/368-2175

August 6, 2008

Lake Tishomingo Property Owners Association
C/O Mr. Richard Hirsch
6089 S. Lakeshore Drive
Hillsboro, Missouri 63050

RE: Lake Tishomingo Dam (MO 30039) Jefferson County

Dear Mr. Hirsch:

As a result of an inspection of the Lake Tishomingo Dam by Glenn Lloyd, P.E., on June 30, 2008, I am pleased to inform you that Registration Permit R- 156 has been renewed and is enclosed for your use. The term of the permit will be three years from the expiration date of the last registration permit issued for the dam and will expire on July 14, 2011. At that time, the dam will be reinspected by the Dam and Reservoir Safety Program at no cost to you. The permit is being renewed for three years based on the downstream environmental zone classification.

Please refer to the enclosed inspection report and summary for additional information on the inspection. If you have any questions, please feel free to contact Mr. Lloyd at (573) 368-2175.

Thanks for your cooperation in renewing this permit.

Sincerely,

WATER RESOURCES CENTER

<signed>

James L. Alexander, P.E.
Chief Engineer
Dam and Reservoir Safety Program
(573) 368-2175

JLA/tlw
Enclosure

**STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
DAM AND RESERVOIR SAFETY COUNCIL**

REGISTRATION PERMIT

Pursuant to Chapters 236.400 through 236.500 of the Revised Statutes of Missouri and the rules established by the Dam and Reservoir Safety Council, and on the basis of an inspection by the Department of Natural Resources for the Lake Tishomingo Dam, Jefferson County, all of which are made a part hereof by reference, **PERMISSION IS HEREBY GRANTED** to Lake Tishomingo Property Owners Association, hereafter known as the permittee, whose address for the purpose of notices and other communications pertaining to this permit is C/O Mr. Richard Hirsch; 6089 S. Lakeshore Drive; Hillsboro, Missouri 63050, which address is subject to change by written notice from the permittee, **TO OPERATE** said dam and reservoir located in Section 5, Township 41 North, Range 4 East, having identification number of MO 30039, a dam height of 63 feet, a principal spillway elevation of 547.50 feet (site datum), a minimum crest elevation of 555.4 feet (site datum), a reservoir area of 120 acres at the water storage elevation and approximate UTM Coordinates of 4,243,500 Meters North and 709,600 Meters East, Zone 15, subject to the following provisions:

GENERAL PROVISIONS:

1. No liability shall be imposed upon or incurred by the State of Missouri and/or the Dam and Reservoir Safety Council, or any of their officers, agents, employees, and members, officially or personally, on account of the granting hereof or on account of any damage to any person or property resulting from any act or omission of the permittee or any of its agents, employees, or contractors, or closed corporations or successors relating to any matter hereunder. This permit shall not be construed as estopping or limiting any legal claim or right of action of the state against the permittee, its agents, employees or contractors for any damages or injury resulting from any such actor omission by them or for violation of or failure to comply with the provisions of the permit or applicable provisions of law.
2. The permittee shall comply with all Federal, State and local laws and regulations, and shall obtain such other permits as may be required.
3. In cases where the doing by the permittee of anything authorized by this permit shall involve the taking, using or damaging of any property rights or interest of any other person or persons, or of any publicly owned lands or improvements thereon or interests therein, it is the sole responsibility of the permittee, before proceeding therewith, to obtain the written consent of all persons, agencies, or authorities concerned, and to acquire all property, rights and interests necessary therefore, including flood easements or permissions for all properties which may be inundated by the dam on a temporary or permanent basis in the upstream impoundment area below the top of dam elevation.
4. The permittee shall notify the Dam and Reservoir Safety Council in writing upon the sale or other transfer of interest in the dam or reservoir.
5. Based on conditions existing at the time of issuing this permit, the Downstream Environment Zone is Class II. Future development in the vicinity of the dam and flood plain below the dam may result in a change in classification. This change will necessitate hydraulic and structural upgrading of the dam so the dam is in compliance with the rules and regulations of the Missouri Dam and Reservoir Safety Council. Permittee or its representatives, successors or assigns shall perform any such upgrading upon a change in classification and upon notification from the Missouri Dam and Reservoir Safety Council.
6. The permittee shall not alter, enlarge, reduce, repair or remove the dam, reservoir or appurtenances without first obtaining a construction permit from the Dam and Reservoir Safety Council.

7. The permittee shall immediately notify in writing, the Chief Engineer of any conditions relating to structural stability of and seepage through the dam discovered during the term of this permit which differs from those conditions identified in the renewal inspection summary.

8. The terms and provisions of this permit shall extend to and bind the successors in authority of the Dam and Reservoir Safety Council and the legally assigned successors in interest of the permittee.

9. Maintenance of the dam and reservoir herein permitted shall be the responsibility of the permittee.

10. The term of this permit shall be three (3) years from the expiration date of the last registration permit issued for the dam and will expire on July 14, 2011. The permittee shall apply for renewal not less than sixty (60) days prior to this expiration date.

Executed at Rolla, Missouri on this 6th day of August, 2008.

DAM & RESERVOIR SAFETY COUNCIL

By <James L Alexander>

Chief Engineer
Dam and Reservoir Safety Program

Inspection Report
Lake Tishomingo Dam
M030039
Jefferson County

A. Engineer Certification

I hereby certify that I have inspected the Lake Tishomingo Dam on June 30, 2008 in accordance with RSMO 236.400 through 236.500.

I hereby certify that the Lake Tishomingo Dam did not have any observed defects that required correction at the time of the inspection.

<signed>
Paul R. Simon, PE No. 2008019603
Missouri DNR

<signed>
Glenn D. Lloyd, PE No.028021
Missouri DNR

B. Report on Inspection

Determination of Downstream Environmental Class- The Lake Tishomingo Dam is classified as a downstream environmental class 2 structure. No additional development was observed downstream of the dam on the day of the inspection that would change this classification.

Description of Structure- The Lake Tishomingo Dam is an earthfill embankment with a primary spillway and no emergency spillway. The earth embankment is approximately 900 feet long and is 63 feet high. The primary spillway is an open channel on the left abutment.

Evaluation of Hydrologic and Hydraulic Capacity- The primary spillway crest elevation and the minimum crest of dam elevation were determined by survey during our inspection. The available freeboard, calculated by taking the difference between the primary spillway and the minimum crest of dam elevations, is 7.9 feet. The required freeboard determined by routing the design storm through the reservoir and dam using the Corps of Engineer's HEC-1 computer program is 7.7 feet. No significant land use changes have occurred in the watershed of the Lake Tishomingo Dam that would necessitate changing the hydrological model used when the original permit was issued. Thus, it is my opinion that the currently available freeboard is adequate.

Condition of Structure- The embankment and appurtenant structures appeared to be in good overall condition at the time of the inspection. It is my judgment that the dam is performing adequately and there are no observable indications that the dam is unsafe.

There is one condition that requires the attention of the owner.

- The recent grouting has greatly reduced the seepage in the toe and right groin (current estimated flow is 0.5 gpm). Continue to monitor the seepage on the right groin and at the toe of the dam and any change in flow rate or color of the water should be reported to the Water Resources Program — Dam Safety Unit.

C. Report on Correction of Defects

There are no observable defects that require correction prior to renewal of the registration permit for this dam.

D. Recommendation on Renewing Permit

Based on the visual condition of the dam at the time of the inspection and the downstream environmental classification of class 2, Registration Permit R-156 will be renewed for the standard 3-year term.

Appendix A: Survey Results

TBM	547.5 ft	Primary spillway crest
	547.4 ft	Water level at primary spillway
	555.4ff	Minimum crest of dam (MWSEL 555.2 ft)
TBM	555.5 ft	Mark in wall (800 feet from left end of wall)

Elevations are based on local site datum

DEPARTMENT OF NATURAL RESOURCES
DAM & RESERVOIR SAFETY PROGRAM
DAM INSPECTION REPORT
COVER SHEET

DATE: *JUNE 30, 2008*

NAME OF DAM: *LAKE TISHOMINGO DAM* I.D. # *MO30039*
LOCATION: County: *JEFFERSON COUNTY* Section: *05* Twp: *41N* Rge.: *04 EAST*
OWNER: *LAKE TISHOMINGO PROPERTY OWNERS ASSOC.* TELE. NUMBER: *636/274-0569*
ADDRESS: *C/O MR. RICHARD HIRSCH*
6089 S. LAKESHORE DRIVE
HILLSBORO, MISSOURI 63050

PERMIT #: *R-156* DIS ENVIRONMENTAL ZONE: HAZARD CLASS: *II*

TYPE OF DAM: *Earthfill*
TYPE OF SPILLWAY(s) Principal: *Open channel on left abutment*
Emergency: *None*

WEATHER CONDITIONS: *Clear, mild*
HEIGHT OF DAM: *63 ft.*
POOL ELEVATION: *Above normal pool*
TAILWATER CONDITIONS: *None*

INSPECTION TEAM
DNR Personnel: Glenn Lloyd, P.E. Civil Engineer
Paul Simon. P.E. Civil Engineer

APPENDIX B: Inspection Checklist

Name of Dam: Lake Tishomingo Dam

Inspection Date: June 30, 2008

ID MO: 30039, County: Jefferson

Downstream Environmental Class: 2

Hazard Classification: Unchanged

Item	Condition*	Comments
1. Vegetation	N.P.	Vegetation was 75% cut and tractor was still cutting when we left.
2. Seepage	O.R.	The recent grouting has greatly reduced the seepage in the toe and right groin (current estimated flow is 0.5 gpm). Continue to monitor the seepage on the right groin and at the toe of the dam and any change in flow rate or color of the water should be reported to the Water Resources Program — Dam Safety Unit.
3. Primary Spillway	N.P.	
4. Emergency Spillway	N.A.	
5. Embankment	N.P.	
6. Reservoir Area	N.P.	
7. Lake Drain Gates or Valves	N.A.	
8. Spillway Outlet Channels	N.A.	
9. Embankment Drain Outlets	N.P.	
10. Riprap	N.P.	

*N.P. = No observable problem; M.R. = Maintenance Required; D.O. = Detect Observed; E.C. = Emergency Condition; O.R. = Observation Required; N.A. = Not Applicable