STATE OF MISSOURI Bob Holden, Governor. Stephen Mahfood, Director

DEPARTMENT OF NATURAL RESOURCES

July 24, 2002

Property Owners Association C/O Mr. Rick Hannick, President 5699 Tishomingo Road Hillsboro, Missouri 63050

RE: Lake Tishomingo Dam (MO 30039) Jefferson County

Dear Mr. Hannick:

As a result of an inspection of the Lake Tishomingo Dam by Russell C. Adams, P.E. on May 30, 2002, I am pleased to inform you that Registration Permit R-I56 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 July 14, 2005. 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.

The inspection found the dam well maintained. Please refer to the enclosed inspection report and summary for additional information on the inspection. You should be aware that new home construction continues in the downstream environmental zone below the dam. At some point in time, the dam's classification will become Class I. This would require an upgrade in spillway capacity. If you have any questions, please feel free to contact Mr. Adams.

Thanks for your cooperation in renewing this permit.

Sincerely,

GEOLOGICAL SURVEY AND RESOURCE ASSESSMENT DIVISION

<signed>
James L. Alexander, P.E.
Chief Engineer
Dam & Reservoir Safety Program

JLA/tlt 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. Rick Hannick, 5699 Tishomingo Road; 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 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:

- I. 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 act or 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, 2005. The permittee shall apply for renewal not less than sixty (60) days prior to this expiration date.

Executed at Rolla, Missouri on this 24th day of July, 2002.

DAM & RESERVOIR SAFETY COUNCIL

By <James L.Alexander >
Chief Engineer
Dam and Reservoir Safety Program

INSPECTION SUMMARY LAKE TISHOMINGO DAM (MO 30039) Jefferson County

On May 2002 a site visit was made to the Lake Tishomingo Dam for the purpose of observing its condition prior to renewal of Registration Permit R-1 58. The owner cuts sprouts and weedy vegetation in the spillway channel and on the dam occasionally. The property owners are in the process of dredging the upper end of the lake.

The principal spillway appeared to be in good operating condition. There is significant seepage under the concrete weir. This should be repaired. There were no visible indications of instability in the dam. There is some seepage in the right groin area which, should be monitored regularly. There are several sprouts as well as debris from cutting of sprouts on the downstream slope of the dam. The owner should establish a program of regularly cutting the sprouts and removal of the resulting debris.

The downstream environmental zone was driven to determine if any new development has occurred which would affect the existing Class II designation. Two new homes were found at about 4500 and 4800 feet downstream. There are now eight homes below the dam, which would be flooded, should the dam fail. If another two homes were built in this zone, the dam would be reclassified as a Class I dam. As a result, new spillway requirements would apply to the dam. The owner should monitor the development below the dam and plan for a possible spillway upgrade should the dam be reclassified.

Based on the visual condition of the dam at the time of the inspection, it is recommended that the permit be renewed for a three year period. This term is based on the development below the dam.

<R C Adams>

Civil Engineer-Dam Safety

DEPARTMENT OF NATURAL RESOURCES

DAM & RESERVOIR SAFETY PROGRAM DAM INSPECTION REPORT

COVER SHEET

DATE: **MAY 30, 2002**

NAME OF DAM: **LAKE TISHOMINGO DAM** I.D. # **M030039**

LOCATION: County: JEFFERSON COUNTY Section 05 Twp 41N Rge. 04 EAST

OWNER: LAKE TISHOMINGO PROPERTY OWNERS ASSOC. TELE. NO: 636/274-1385

ADDRESS: C/O MR. RICK HANNICK, PRESIDENT

5699 TISHOMINGO ROAD

HILLSBORO, MISSOURI 63050

PERMIT #: R-156 D/S ENVIRONMENTAL ZONE: HAZARD CLASS: II

Description of D/S Zone: 8 homes are located downstream within 10,000 ft. of the dam before the Big River is encountered. There are homes at 2700', 4000', 4500', 4800', 5000', 6000', 5400' and 10,000' below the dam.

TYPE OF DAM: Earthfill

TYPE OF SPILLWAY (s) Principal: Open channel on left abutment

Emergency: None

WEATHER CONDITIONS: Sunny & warm (70's)

HEIGHT OF DAM: 63 Ft.

POOL ELEVATION: <u>As normal pool</u> TAILWATER CONDITIONS: **None**

INSPECTION TEAM

DNR Personnel: Russell C. Adams, P.E., Civil Engineer

Owner's Representative

SUMMARY OF MAINTENANCE DONE AND/OR REPAIRS MADE SINCE LAST INSPECTION

INSPECTION DATES Current: MAY 30, 2002 Last: JULY 28, 1999
NAME OF DAM: LAKE TISHOMINGO DAM ID# MO 30039

EARTH EMBANKMENT: <u>Cut sprouts occasionally.</u>
 PRINCIPAL SPILLWAY: <u>Cut sprouts as required.</u>

3. OUTLET WORKS: N/A

4. EMERGENCY SPILLWAY: N/A

5. OTHER: **Dredging lake at upper end**

INSPECTION OF PRINCIPAL SPILL WAY

TYPE: Open channel on left abutment

NAME OF DAM: **LAKE TISHOMINGO** ID. # **MO 30039** INSPECTION DATE: **MAY30. 2002**

ITEM CONDITION DEFICIENCES

Trash Rack	NA.	
Inlet	NP.	
Conduit	NA.	
Stilling Basin	N.A.	
Outlet Channel		
GENERAL:		
Condition of Concrete	NP.	
Condition of Other Materials	N.P.	
Erosion	N.P.	
Seepage	MR.	Significant under seepage of concrete weir.
Alignment	NA.	
Riprap	NP.	
Filter and Drains	NA.	
Vegetation	NP.	
Sedimentation	NP.	
Obstructions	N.P.	

CONDITION CODES: N.P. = No observable problem, D.C. = A major defect is in evidence, O.R. Regular observation required, M.R. = Maintenance required, E.C. = Imminent failure is expected, NA. = Not applicable

INSPECTION OF EARTH EMBANKMENT

NAME OF DAM: <u>LAKE TISHIMINGO</u> ID.# <u>M0 30039</u> INSPECTION DATE: <u>MAY 30, 2002</u>

ITEM CONDITIONS DEFICIENCIES

SLOPE STABILITY			
Measure Slope Angles	NP.		
Surface Cracking	N.P.		
Sloughing or Sliding	N.P.		
Settlement	N.P.		
Seepage & Zones of Softness	OR.	Seepage in right groin.	
Uniform Crest	N.P.		
Uniform Slopes	N.P.		
OTHER:			
Riprap	N.P.		
Filter and Drains	NP.		
Animal Damage	N.P.		
Surface Runoff Control	N.P.		
Vegetation Cover	MR.	Several sprouts as well as debris on downstream slope.	
CONDITION CODES: N.B. – No observable problem DO. – A major defect is in evidence			

CONDITION CODES: N.P. = No observable problem, DO. = A major defect is in evidence, OR. = Regular observation required, M.R. = Maintenance required, E.C. = Imminent failure is expected, N.A. = Not applicable