

DOCUMENTATION FOR HAZARD CLASSIFICATION OF DAMS

(PL-566, Job Class IV and Inventory Dams)^{1/4/5/}

Name or Number of Site _____

Program (Check One): Watershed; RC&D; CO-01

Location: (See attached map or photo)

County _____ Section No. _____ T _____ R _____

Dam in Series: Yes No Explain: _____

Preliminary Structure Data

_____ Assumed Hazard Class^{2/} Drainage Area: _____ Acres

A. Ditch Bottom Elevation at Centerline _____ F. Total Storage to A.S. Crest _____ Ac-Ft.

B. Ditch Bottom Elevation at Downstream Toe _____ G. Effective Height: $E - A =$ _____

C. Floodplain Elevation at Centerline _____ H. Overall Height: $D - B =$ _____^{3/}

D. Settled Top of Dam Elevation _____ H x S: $G \times F =$ _____

E. Auxiliary Spillway Crest Elevation _____ Conduit Diameter: _____ inches

Job Class _____ (See Form MO-ENG-C12 or C12A)

Downstream Conditions

1. Valley Conditions Downstream from Structure: Convergent Divergent Parallel

Floodplain Elevation _____ Valley Slope in Downstream Direction _____

2. Stream Channel Size: Depth _____ Width _____ Valley: Width _____ Shape _____

3. Valley Roughness or Retardance: "n" _____

4. First Downstream Hazard (See Page 2 of 2) _____ Distance _____

5. Distance Downstream to Junction of Significantly Larger Tributary _____

Rationale for Determining Hazard Class _____

Actual Hazard Class _____ Analyzed by _____ Date _____

Approved by _____ Date _____

ATTACHED: Breach Routings Yes No
Map(s)
Other pertinent supporting documents

Describe Type of Utilities, Distance Downstream and Distance Above Floodplain Elevation	Approximate Distance Downstream From Dam	Approximate Distance Above Floodplain Elevation	Location in Potential Impact Area (Yes or No)
Building and Utilities:			Yes No
			Yes No
Roads and Railroads:			Yes No
			Yes No
Bridges:			Yes No
			Yes No

Describe Potential Downstream Development: _____

Potential impact area due to sudden failure of dam:

Determined by breach routing. (See attached maps and/or other descriptions)

Taken from Tech. Note 9:

$H_{BR} = \text{Auxiliary Spillway Elevation} - \text{Floodplain elevation}$

$= \text{_____} - \text{_____} = \text{_____} \text{ ft.}$

$A = \text{Area of dam above floodplain elevation} = \text{_____} \text{ sq. ft.}$

$V_S = F = \text{_____} \text{ ac. ft.}$

$BR = \frac{V_S H_{BR}}{A} = \frac{\text{_____} \times \text{_____}}{\text{_____}} = \text{_____} \text{ ac.}$

$Q_{max} = 1100 BR^{1.35} = \text{_____} \text{ cfs.}$ Use _____ cfs

Distance Downstream (ft)	0	500	1,000	1,500	2,000	2,500	3,000	5,000	7,500	10,000	15,000
Water Depth (ft)	H_{BR}										
Q (cfs)	Q_{max}										

The hazard classification and design should be re-evaluated if there is development or changes in the impact area or upstream watershed.

NOTE:

^{1/} Inventory dams are described in NATIONAL INVENTORY AND MONITORING MANUAL, Part 505, MO505.05 and NATIONAL ENGINEERING MANUAL 520.21(f).

(All class b and c dams.

All class a dams with 6 feet overall height and storage of 50 or more acre-feet.

All class a dams with 25 feet overall height and storage of 15 or more acre-feet.)

^{2/} Definition of hazard classification in NATIONAL ENGINEERING MANUAL 520.21.

^{3/} See Rules and Regulations of the Missouri Dam and Reservoir Safety Council if overall dam height is greater than 35 feet.

^{4/} See NATIONAL ENGINEERING MANUAL Supplement MO 520.23 and MO 520.28.

^{5/} This form may also be used for non-inventory size dams.