

APPENDIX Q. Visual Inspection Checklist

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VISUAL INSPECTION CHECKLIST

CITY OF AUBURN
ENGINEERING SERVICES DEPARTMENT

INSPECTION YEAR:

TYPE OF INSPECTION: (**Informal, Regular, Formal**):

DAM NAME:

DAM INVENTORY NO:

LOCATION: __ ¼ of the __ ¼, Section __, Township __, Range __, Lee County

OWNER:

OPERATOR:

DATE OF INSPECTION:

RESERVOIR INFORMATION

Normal Reservoir Elevation (ft):

Reservoir Elevation at time of inspection (ft):

WEATHER CONDITIONS (**including recent rainfall**):

INSPECTION PERSONNEL

Alabama Licensed Professional Engineer(s):

Name Affiliation Area of Expertise

Non-Licensed technical expert(s) and advisors(s):

Name Affiliation Area of Expertise

City Representative(s):

Name Affiliation

Dam Owner Representative(s):

Name Affiliation

Others:

Name Affiliation

GENERAL INFORMATION

Name of Dam:

River Basin:

Stream Name:

Tributary of:

Latitude (N):

Longitude (W):

Purpose of Dam:

Hazard Classification:

Drainage Area (sq. mi.):

Height of Dam (ft):

Length (ft):

Normal Surface (ac):

Normal Capacity (ac-ft):

Maximum Surface (ac):

Maximum Capacity (ac-ft):

Principal Spillway Capacity (cfs):

Emergency Spillway Capacity (cfs):

Are the spillway(s) adequate for this classification of dam?

Principal: Yes No

Emergency: Yes No

If not, what percent of the PMP can be passed?

Principal: %

Emergency: %

HISTORY

Date Constructed:

Date(s) Reconstructed:

Designer:

Constructed by:

Owner & Address:

Owner Telephone Number:

Owner/Operator present during inspection (yes or no):

PREVIOUS INSPECTIONS (date of)

Last Informal Inspection:

Last Regular Inspection:

Last Formal Inspection:

EMERGENCY ACTION PLAN (Required for all High and Specified Significant dams)

Date of Approved Plan:

Date of Plan Revision:

Is the notification flowchart complete and current?

Is inundation mapping included?

Are emergency materials and equipment identified?

When was the plan last tested?

DOWNSTREAM HAZARD CLASSIFICATIONS

Present Hazard Classification:

Changes in Downstream Land Use and Habitation since last inspection:

Is present Classification appropriate?

OPERATION AND MAINTENANCE

Date of Operation and Maintenance Plan:

Are instructions adequate?

Do operating personnel follow instructions?

What are operating personnel capabilities?

EXAMINATION OF EMBANKMENT DAMS

DESCRIPTION OF STRUCTURE

Embankment Material:

Cutoff Type (If Known):

Impervious Core (If Known):

Internal Drainage System:

Movement (Horizontal and Vertical Alignment):

Junctions with Abutments or Embankments:

Miscellaneous:

CREST

Width of Crest:

Erosion on Crest Present:

Surface Cracks:

Settlement:

Unusual Conditions:

UPSTREAM SLOPE

Slope (Estimate) (H:V):

Trees, Undesirable Growth or Debris, Animal Burrows):

Sloughing, Subsidence or Depressions:

Slope Protection:

Unusual Conditions:

DOWNSTREAM SLOPE

Slope (Estimate) (H:V):

Trees, Undesirable Growth or Debris, Animal Burrows):

Sloughing, Subsidence or Depressions:

Surface Cracks or Movement at Toe:

Seepage:

External Drainage System (Ditches, Trenches, Blankets):

Condition Around Outlet Structure:

Unusual Conditions:

GROIN AND TOE AREA

Erosion around Groin Area:

Seepage at Groin Area:

Signs of Movement:

Depressions, Sinkholes:

Unusual Conditions:

SEEPAGE AND TOE DRAIN/RELIEF WELL FLOW SUMMATION

Location Estimated Flow Color (Turbidity)

EXAMINATION OF SPILLWAYS AND OUTLET WORKS

TYPE(S) AND DESCRIPTION OF SPILLWAY(S)

Principal:

Emergency:

Other:

FOR EACH SPILLWAY THE FOLLOWING ASPECTS MUST BE
EXAMINED WHERE APPROPRIATE

ENTRANCE CHANNEL

Description:

Vegetation (Trees, Bushes):

Debris:

Channel Side-Slope Stability:

Slope Protection/Erosion:

Unusual Conditions:

SPILLWAY CREST

Description:

Condition of Material:

Signs of Movement:

Joints:

Unusual Conditions:

INLET RISER

Description:

Condition of Material:

Signs of Movement:

Joints:

Floor:

Unusual Conditions:

SPILLWAY WING WALLS

Description:

Condition of Material:

Signs of Movement:

Joints:

Drains:

Unusual Conditions:

DOWNSTREAM APRON

Description:

Condition of Material:

Signs of Movement:

Unusual Conditions:

CONDUITS

Description:

Condition of Material:

Signs of Movement:

Joints:

Seepage:

Location Estimated Flow Turbidity

Unusual Conditions:

TRASH RACKS

Description:

Condition of Material:

Unusual Conditions:

CHUTES

Description:

Condition of Material:

Signs of Movement:

Joints:

Unusual Conditions:

STILLING BASIN

Description:

Condition of Material:

Signs of Movement:

Erosion:

Unusual Conditions:

OUTLET CHANNEL

Vegetation (Trees, Bushes):

Debris:

Channel Side-Slope Stability:

Erosion:

Unusual Conditions:

LOW LEVEL OUTLET

Description:

Condition:

Trash Rack:

Leakage:

Location Estimated Flow

Unusual Conditions:

Was the low-level outlet operated during the inspection?

Were there difficulties operating the low-level outlet?

When was the low-level outlet last operated and did this conform with the Operation and Maintenance Procedures?

Miscellaneous:

EMERGENCY SPILLWAY

Description:

Vegetation (Trees, Bushes):

Debris:

Channel Side-Slope Stability:

Slope Protection/Erosion:

Unusual Conditions:

OTHER SPILLWAY

Description:

Vegetation (Trees, Bushes):

Debris:

Channel Side-Slope Stability:

Slope Protection/Erosion:

Unusual Conditions:

EXAMINATION OF OTHER FEATURES

INSTRUMENTATION (Monumentation/Surveys, Observation Wells, Weirs, Piezometers, Etc.) location, condition:

(A separate report including instrument readings, condition of instruments, observations, and conclusions based upon the collected data should be attached.)

RESERVOIR

Slopes:

Sedimentation:

Unusual Conditions Which Affect Dam:

Unusual Conditions:

APPURTENANT STRUCTURES (Power House, Gatehouse, Penstocks, Water Supply, Other)

Description and Condition of each:

CONCLUSIONS

I certify that the above dam was personally inspected by me and the conditions described herein are correct to the best of my knowledge and belief.

I recommend the following repairs be made immediately:

The following long-term improvements should also be undertaken:

The following studies should also be undertaken:

Have the recommendations above included those from previous Regular or Formal Inspections?

Does the Emergency Action Plan or the Operation and Maintenance Procedures require revision?

Name of Professional Engineering Company/Consultant Representing the Owner:

Company/Consultant Address:

Company/Consultant Telephone Number:

Alabama Licensed Professional Engineer representing the dam owner in responsible charge of the inspection:

Sign_____ **Date**_____

Alabama Professional Engineer License Number_____

SEAL

(Department use only)

Dam Name_____

Reference No._____ **Hazard Classification:** _____