

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

LEVEE PERMIT POLICY
10 May 2011

References: Louisiana Revised Statutes Title 38, Title 33 U.S.C.A. Sec 408, and Title 33 CFR sec 208.10.

1. Background. Title 33, Section 208.10 of the Code of Federal Regulations (CFR) requires the Secretary of the Army, through the US Army Corps of Engineers and its authorized delegates (levee districts and other local project sponsors), to operate and maintain federally authorized and constructed flood control and hurricane risk reduction projects. Levee districts, as state sponsors of most federally authorized and constructed flood control and hurricane risk reduction projects, are partners with the Corps and must operate and maintain the projects to ensure structural integrity and that the system will function as designed when necessary to prevent or mitigate flood damages. Sponsors protect the structural integrity of the project by administering a proactive flood control permits program, performed in conjunction with the Louisiana Office of Coastal Protection & Restoration (LA OCPR), Louisiana Department of Transportation & Development (LA DOTD) and the Corps of Engineers. The permits program is administered in the overall public interest to protect life and property within the levee system. The engineering guidelines for permitting are established by LA OCPR/DOTD and the Corps of Engineers, based on state and federal laws and regulations, standard engineering practices, hydraulic and geotechnical conditions for this region, and lessons learned from historical events or incidents.

2. Purpose. The purpose of this paper is to detail and clarify the permit review policy as practiced in the New Orleans District.

3. Activities Requiring a Permit. The Corps of Engineers and the State of Louisiana establish distances for certain types of work that can adversely affect the structural integrity of federal levees and structures. CFR Title 33 Section 208.10 gives the Corps' District Engineer and delegated authorities wide latitude to protect the federal projects. There is no distance limitation for permitting work that can affect the federal levees and structures, however, based on state and federal laws and regulations, standard engineering practices, hydraulic and geotechnical conditions for this region, and lessons learned from historical events or incidents, the Corps New Orleans District has established the following distances and river stage elevations for flood control permits within its boundary:

a. All work within 300 feet of the levee centerline or 250 feet from the visible levee or berm toe for both Mississippi River & Tributaries (MR&T) projects and federal hurricane risk reduction projects.

b. All subsurface work within 1,500 feet of the MR&T levee centerline and 300 feet of the levee centerline or 250 feet from the visible levee or berm toe of a hurricane risk reduction levee. Subsurface work includes excavations (digging), ponds, swimming pools, drainage ditches, soil borings, wells, shafts, pile driving, drilling, etc.

c. Seismic surveys and demolition using explosives within 5,000 feet of both MR&T and hurricane risk reduction levees and structures.

d. Levee failure during high river stages can be catastrophic. Therefore, all work on the MR&T levees (including transport of heavy loads over the levee or disturbing the grass cover), subsurface work

within 1,500 feet of a MR&T levee, and seismic surveys/demolition using explosives within 5,000 feet of any MR&T project is restricted by stipulations in the permit to being conducted only when the stage of the Mississippi River is below elevation +11.0 feet National Geodetic Vertical Datum (NGVD) on the Carrollton gage, New Orleans, Louisiana, unless a waiver is granted for higher stages. Waivers are considered on a case-by-case basis, and are dependent on the surrounding subsurface ground conditions in the vicinity of the project, the distance the project is away from the levee and the forecasted river stages. Waivers are only considered when the river stage is forecast to exceed +11.0 feet but not to exceed +15.0 at the Carrollton gage. Permit applicants are advised to monitor river stages by calling (504) 862-2461 or checking www.rivergages.com for daily updates and forecasts. Only emergency work specifically authorized by the Corps District Commander or authorized delegate is allowed within those distances when the river stage is above +15.0 feet NGVD at the Carrollton gage.

e. Work on or near a hurricane risk reduction levee will be restricted during hurricane season, and will be evaluated on a case-by-case basis for possible waiver.

4. Review Process. Original levee permit applications are submitted to the appropriate levee board, with copies to USACE New Orleans District (MVN) and LA OCPR/DOTD. The levee district is the permitting agency; MVN and LA OCPR/DOTD provide technical input. All MVN levee permit reviews are coordinated by the Operations Manager for Completed Works (currently Amy Powell, OD-W). Permit applications are reviewed by the appropriate MVN-ED offices.

a. Standard Required Information. Often permit applications are returned due to missing or unclear information. At a minimum, applications should include:

- Vicinity map. Map must be in sufficient detail to determine accurate location of work and its relationship to the levee centerline, and the levee station number nearest to the project.

- Survey of property. Surveys must be taken by a registered land surveyor. Surveys are to be taken perpendicular to the levee centerline/baseline and must extend far enough on either side of the levee to cover the proposed improvement. All distances must be referenced to the levee baseline and all elevations must be referenced to 0.0 NAVD88 (2004.65). All improvements must be referenced to USCE levee baseline stations.

- Plans/drawings. Drawings must be to scale and clearly show limits of work, depth of excavation and all work in relation to the levee centerline/baseline. Cross sections must be plotted to a natural scale of 1 inch equals 20 feet horizontally and vertically. Final permit drawings must be stamped by a registered engineer. All drawings must be submitted on a half scale "D" size sheet for review by Engineering Division. Drawings which go out for public comment may be submitted on 8.5" by 11" sheets.

- Copies of any special geotechnical work or reports that were completed for the work covered in the application. All such reports must be stamped by a registered engineer.

b. Permitting Guidelines.

1. Permit drawings for pipelines, pipe racks, bridges, water intake and discharge structures, etc. must be stamped by a registered engineer.

2. For levee/floodwall crossings, water intake structures in the river and other permitted structures, the applicant must submit As-Built drawings within one month of completion of the permitted work.

3. Utility poles and anchors must be a minimum of 10 feet from levee toe and to a depth that will not penetrate the theoretical design slope extended below ground surface.

4. Fill on batture must be analyzed for impact to bank and levee stability. Permanent fill on the batture cannot exceed 1 foot above natural ground.

5. If levee backfill material is required as part of the permitted work, the PI of the new fill must be 10 or more by Atterberg Limits by ASTM D4318, and the material is classified as either a CH or CL by ASTM D2487, with less than 35% sand retained on the No. 200 sieve by ASTM D1140. In addition, the backfill material must have an organic content of no greater than 9%, as determined by ASTM D2974, Method C. Backfill material must be placed in 6 inch lift for the first layer and 12 inch lifts for the succeeding layers. Backfill material must be compacted to the 90% standard Proctor ASTM D698.

6. Standard drawings are available to guide the applicant in understanding MVN requirements:

- Surface Crossings Typical for River Levees, File No. 29027
- Limits of Permissible Excavation in River, File No. H-8-45755
- Limits of Permissible Stockpile on Riverbanks, File No. H-8-45756
- Limits of Permissible Riverside Borrow Pits, File No. H-8-45747
- Concrete Slope Pavement Details, File No. H-8-45782
- Power Line Service Crossing over Levee, File No. H-8-47453

c. Additional Information Requested. If further geotechnical analysis is needed to evaluate the permit, the applicant may be requested to obtain surveys, borings, testing and analysis to verify that the proposed work does not violate our required factors of safety. The applicant, through the Freedom of Information Act, can request any soil boring information that the Corps of Engineers has in the vicinity of the proposed improvement. The applicant can also request data on the annual maintenance surveys on the revetment, if needed, from Channel Stabilization Section in Civil Branch if the work is on a revetted bank of the Mississippi or Atchafalaya River.

d. More Complex Permits. The applicant is encouraged to arrange a meeting with MVN regulatory and technical staff prior to submitting the application. This meeting provides a valuable opportunity for the applicant to explain the project and to understand our requirements. Typically this results in a more complete permit application and an expedited review.