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LAKE PONTCHARTRAIN HURRICANE PROTECTION PROJECT
LEVEL OF PROTECTION

1. Corps of Engineers' Regulations and Guidance.

a. EP 1165-2-1 (Red Book). On page A-75 this EP states "Hurricane Protection Projects. Design storms vary with the nature of the area being protected and the type of protection being provided. Beach nourishment projects providing hurricane protection to developments of low intensity may have design storms of 10-year exceedence frequency whereas high dikes and floodwalls protecting urban areas are generally designed for the standard project hurricane."

b. Engineer Regulations. I find no regulation that specifically addresses the level of protection for hurricane projects. We have ER 1105-2-111, Flood Damage Prevention: Level of Protection, in draft form for review at the present. This ER states in paragraph 7 "Policy On Level of Protection, subparagraph a. On the assumption that the exceedence of design flow would cause a castastrophe, the Standard Project Flood (SPF) is the minimum level of protection that District Engineers should recommend for high levees, high floodwalls, and high velocity channels in urban areas. Higher levels of protection using design floods up to the probable maximum flood (PMF) should be considered in the plan formulation process discussed in paragraph 5 and may be recommended if incrementally justified."

While this regulation does not specifically refer to hurricanes, I think that the rationale is even more appropriate here than it is for flood control projects since the advance warning is often of shorter duration because of the unpredictable path of the hurricane.

2. Level of Protection Authorized for Lake Pontchartrain. On page 61 of House Document No. 231, 89th Congress, 1st Session (which is the authorizing document for this project), paragraph 17-B states "Design Hurricane. Areas to be protected are highly developed for residential, commercial, and industrial uses or have immediate potential for such development. Because of the serious threat of human life and property involved, the design of the protection plan must be based on the Standard Project Hurricane for the region as described in paragraph 9. Additional details pertinent to the design hurricane are shown in Appendix A." In the description of the Standard Project Hurricane in paragraph 9, the frequency is given as once in about 200 years. This frequency is presently estimated as being about once in 250 years. In paragraph A-5, Design Hurricane, of Appendix A, which is presented on page 134 of the House Document, subparagraph a states "Selection of the Design Hurricane. The Standard Project Hurricane was selected as the design hurricane (Des H) due to the urban nature of the study area. A design hurricane of lesser

intensity which would indicate a lower levee grade and an increased frequency would expose the protected areas to hazards to life and property that would be disastrous in event of the occurrence of a hurricane of the intensity and destructive capability of the Standard Project Hurricane."

3. Level of Protection Without Barriers. If the presently designed levee system is completed and the barrier complex is not constructed, the level of protection would be for a storm of about 35 to 40 year frequency.