

CEMVN-OD-W

MEMORANDUM FOR Commander, U.S. Army Engineer Division,
Mississippi Valley, ATTN: CEMVD-TD

SUBJECT: Annual Inspection of Completed Works Program

In accordance with ER 1150-2-301, ER 1130-2-339, and
DIVR 1130-2-304, the following report (Eng Form 4390-R) is
submitted herewith for maintenance performance by local interests
for all features originally authorized under the Mississippi
River and Tributaries Project and under Construction General.
Included also are inspection reports for New Orleans District
projects.

- 2 Encls
- 1. Rept, MR&T Levees
and Small Flood
Control Projects
- 2. Rept, Completed
Eng Form 4390-R

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2002 Annual Inspection for Maintenance of Completed Flood
Control Works in the New Orleans District

1. The 2002 inspections of levees, floodwalls, and drainage structures operated and maintained by local interests were conducted during the period 18 May through 22 November 2002.
2. All inspections were conducted by the District Commander, his Deputy or his authorized representative, appropriate members of Operations Division, Engineering Division, Construction Division, Planning, Programs, and Project Management Division, the Louisiana Department of Transportation and Development (LA DOTD), and Levee Board Commissioners and their staff.
3. During our levee inspections and at the annual levee board association conference this year, we have received complaints from several levee districts that the sand-clay-gravel material that was installed on the MR&T levee crown during construction is an inadequate all-weather surfacing material. It has been their experience following heavy rains that the levee crown gets very slippery and is particularly dangerous to traverse. We at the district have experienced this danger first hand while attempting to traverse wet levees during our annual inspections. We concur with the levee districts that a more suitable and appropriate material is required, and therefore, we will be requesting funding through the MRL and Atchafalaya Basin programs to replace or supplement the sand-clay-gravel surfacing material with crushed stone on the Mississippi River and Atchafalaya Basin flood control levees.
4. Comments on the condition of levees, of maintenance performed by local interests during the year, and our ratings are as follows:

a. **WEST JEFFERSON LEVEE DISTRICT**

This district is responsible for maintaining 20.2 miles of levee on the west bank of the Mississippi River and 40 miles of back levees, which are being upgraded under the West Bank & Vicinity Hurricane Protection Project, in Jefferson Parish.

The mainline river levee was inspected on 10 October 2002. The river levee and floodwall segments were in excellent condition. All construction work on the Mississippi River in this district has been completed except for three gap closures. The deficiencies are considered minor since they are within the allowable freeboard. Due to funding constraints, the contract to raise these gaps in FY 03 has been delayed indefinitely. Although the hurricane protection levees are not totally complete, we conducted an interim joint inspection of the system on 15 May

2002. The condition of the levees and floodwalls where federal construction has been performed are in excellent condition. An ACCEPTABLE rating is assigned.

b. **LAKE BORGNE BASIN LEVEE DISTRICT**

This district is responsible for maintaining 11.6 miles of levee on the east bank of the Mississippi River, 43 miles of hurricane protection levee, and the Bayou Dupre floodgate. In addition, the levee district is also responsible for operating and maintaining St. Bernard Parish's eight pumping stations and 19 internal drainage canals.

The mainline river levee was inspected on 18 October 2002. All construction work on the Mississippi River levee in this district has been completed for years. We also conducted a joint inspection of the hurricane protection levee on 3 May 2002, since the majority of the levee system is up to grade and section. The levees, floodwalls, and the Bayou Dupre flood control structure are all well maintained. A periodic inspection of the Bayou Dupre floodgate was conducted on 25 October 2002, and the structure is in excellent condition. An ACCEPTABLE rating is assigned.

c. **GRAND PRAIRIE LEVEE DISTRICT**

This district is one of three under the direction of Plaquemines Parish Government and is responsible for maintaining 37.4 miles of levee on the east bank of the Mississippi River between the St. Bernard-Plaquemines Parish line and the Bohemia Spillway, and 16 miles of hurricane protection levee (Reach C) behind the mainline river levee.

The mainline Mississippi River levee was inspected on 18 October 2002. The levee is well maintained and in excellent condition. All construction work along the Mississippi River levee in this district is now complete. On 11 June 2002, we also conducted a joint inspection of the Reach C hurricane protection levee since 90 percent of the levee system is now up to grade and section. The hurricane protection levee is well maintained and in excellent condition. An ACCEPTABLE rating is assigned.

d. **RED RIVER, ATCHAFALAYA and BAYOU BOEUF LEVEE DISTRICT**

The levee system within MVN consists of the Mansura Hills to Hamburg levee (20.1 miles), Bayou des Glaisses fuse plug levee

(8.1 miles), right descending Atchafalaya River levee, including ring levees at Simmesport, Melville, and Krotz Springs (48.6 miles), and a portion of the west Atchafalaya Basin protection levee from Hamburg to the Bayou Courtableau control structure (35.3 miles). All 112.1 miles of levees within MVN's jurisdiction have been completed for years; however, recent profile information indicates that portions of the Krotz Springs and Melville Front and Ring Levees have grade deficiencies along with the Morganza Guide Levees, Bayou Des Glaisses Fuse Plug Levee and the West Atchafalaya River Levee. Contracts to restore these levees back to design grade and section are scheduled to be awarded in September 2003 for Krotz Springs and Melville provided funding is available, and the other items are scheduled for later in the future (FY06 and FY08).

The inspection was conducted on 22 October 2002, and the levees, cattle guards, and fence lines are all well maintained. An ACCEPTABLE rating is assigned.

e. **FIFTH LOUISIANA LEVEE DISTRICT**

The levee system within MVN consists only of the right descending Mississippi River levee (16.8 miles) between Black Hawk, LA, and the Concordia-West Feliciana Parish boundary line just above Old River lock. They are also responsible for 338 miles of levees in MVK.

The inspection was conducted on 23 October 2002, and the levee is well maintained. We did observe a recent slide on the floodside levee slope in the vicinity of levee station 590+00. The slide is a very shallow seated failure resulting from compaction problems and heavy rainfalls, and not from a deep-seated foundation problem. The slide is currently being repaired the New Orleans District's hired labor unit and all work is expected to be completed by the end of December. There is one remaining contract for 3.5 miles of levee construction in this levee district. The awarding of the last contract has been delayed from FY 03 to FY 04 due to funding constraints, relatively minor grade deficiency, and the uncertainty of the availability of borrow material. The levee deficiencies are minor and are considered low priority since they are within the allowable freeboard. An ACCEPTABLE rating is assigned.

f. ATCHAFALAYA BASIN LEVEE DISTRICT

The levee system consists of the following reaches of river and floodway levees:

Levee along the south and west banks of lower Old River and the right descending Mississippi River levees from Barbre Landing in Pointe Coupee Parish to Bayou Lafourche at Donaldsonville, in Ascension Parish (length is 119 miles, including 1.2 miles of spur dikes and the 3,906-foot length of the Morganza control structure); the upper Morganza floodway levee (length is 12.0 miles including 3.0 miles which are a part of the mainline levee at Morganza control structure); the lower Morganza floodway levee and the east Atchafalaya Basin protection levee extending from the west Mississippi River levee at Morganza, along the east side of the Atchafalaya Basin to a point approximately 6 miles south of Morgan City, in St. Mary Parish (length is 92.6 miles, of which 5.8 miles are maintained by the City of Morgan City and St. Mary Parish); the west Atchafalaya Basin protection levee from Bayou Courtableau in St. Landry Parish along the west side of the Atchafalaya Basin to the Gulf Intracoastal Waterway below Berwick, in St. Mary Parish (length is 92.6 miles, of which 4.9 miles below the lower Atchafalaya River are maintained by the Town of Berwick and St. Mary Parish); the left descending Atchafalaya River levee from Barbre Landing in Pointe Coupee Parish to a point about 1.5 miles above the head of Whiskey Bay Pilot Channel in St. Martin Parish (length is 51.1 miles); the right descending Atchafalaya River levee from Bayou Courtableau in St. Landry Parish to a point below Butte Larose settlement in St. Martin Parish (length is 18.0 miles); total length of levees in the district is 387.0 miles.

The levee inspection was conducted on 29 and 30 October 2002. There were no Mississippi River levee contracts on going at the time of the inspection. However, there are two contracts scheduled to be awarded in FY 03, Alhambra to Hohen Solms, 1.8 miles, and Hohen Solms to Modeste, 1.8 miles. The New Orleans District is currently preparing a report for the completed archeological investigations of the Braziel Baptist Church cemetery that was discovered partially buried under the Mississippi River levee and batture within the Alhambra-Modeste reach. Human remains and caskets have been recovered during the investigation. The Corps has approved a plan to relocate the cemetery which includes a temporary set-forwarding of the existing levee in order to remove the remains under the levee. The New Orleans District is preparing a relocations design

memorandum to be approved at its headquarters office for the relocation of the cemetery. The report will be completed in the third quarter in FY 03, with award of the first construction contract estimated to be early in FY 04.

There are two second lift levee enlargement contracts scheduled to be awarded in FY 03 in the Atchafalaya Basin that are within the jurisdiction of the Atchafalaya Basin Levee District. Contracts scheduled for this year include W52 and E69/73 levees. If funding becomes available a contract will be awarded in FY 03 for W85 A and B. There are two second lift levee enlargement contracts (W74 and E36) scheduled for FY04. All levees and floodwalls are well maintained. An ACCEPTABLE rating is assigned.

g. **MORGAN CITY**

The protection system north of the Southern Pacific Railroad is known as "Morgan City Front", which consists of 213 feet of earthen levee, 1.3 miles of concrete floodwall, a pumping station and 1600 feet of storm drainage facilities; south of the railroad is known as "Tiger Island", which consists of 1.6 miles of levee, 2,000 feet of concrete floodwall, a pumping station, and 2,500 feet of storm drainage facilities. Morgan City's flood protection and maintenance responsibilities also extend north beyond the "Morgan City Front" area to include the east Atchafalaya Basin protection levee up to the Morgan City corporate limits, which correlates with approximate east Atchafalaya Basin protection levee station 2276+30.3.

The inspection was conducted on 30 October 2002. There are no significant maintenance deficiencies noted. There are a few areas along the floodwall where there are some encroachments within the right-of-way. Morgan City is addressing the issues with the local businesses to have them remove equipment and other items from the right-of-way. None of the encroachments are endangering the integrity of the flood protection system or our ability to flood fight the area. An ACCEPTABLE rating is assigned.

h. **TOWN OF BERWICK**

The protection system consists of 1.6 miles of levee, 0.9 mile of concrete floodwall, and a gated drainage structure to provide protection for a 32-inch storm sewer passing through the floodwall.

The inspection was conducted on 30 October 2002. There are no significant maintenance deficiencies noted. An ACCEPTABLE rating is assigned.

i. **ST. MARY PARISH**

The protection system consists of 63 miles of levees, 11 drainage pumping stations, drainage structures, and numerous culverts, making up the Levees West of Berwick, LA, protection system.

The inspection was conducted on 31 October 2002, and at the time of the inspection there were three on going contracts (East Bayou Sale Gordy Levee, 4.6 miles; West Bayou Sale Maryland Levee, 2.4 miles; and Todd Levee and pumping station, 1.5 miles). There are three contracts scheduled to be awarded in FY 03 (Wax Lake Outlet west, 2.5 miles; Wax Lake West Drainage Structure; and West Bayou Sale North Bend, 2.6 miles). If funding becomes available a contract will be awarded for the Wax Lake Outlet East Levee. There are no significant maintenance deficiencies noted. An ACCEPTABLE rating is assigned.

Following Hurricane Lili, which overtopped the MR&T flood control levees near the Gordy Pumping Station, 11 intentional cuts by a Corps contractor and the local sponsor, St. Mary Parish Government, were made in the East and West Gordy levees to unwater the area. The Gordy Pumping Station was inundated with saltwater from the Gulf of Mexico, and rendered inoperable for about two weeks. The levee cuts have been closed, but proper levee restoration is being designed and will be incorporated in upcoming levee enlargement contracts in FY 03.

j. **LAFOURCHE BASIN LEVEE DISTRICT**

This district is responsible for maintaining 61.7 miles of levee on the west bank of the Mississippi River between Donaldsonville, LA, and the Jefferson-St. Charles Parish line.

The levee was inspected on 6 November 2002, and is in excellent condition. All work in this district has been completed except for some small gap closures. The gap closure in the vicinity of the Edgard ferry landing is scheduled to be awarded in FY04. The remaining gap closures are considered minor since they are within the allowable freeboard. Due to funding constraints, contracts to close these gaps have been delayed indefinitely. An ACCEPTABLE rating is assigned.

k. **ORLEANS LEVEE DISTRICT**

This district is responsible for maintaining 128.7 miles of levees and floodwalls in Orleans Parish; 13.2 miles on the east bank of the Mississippi River and 14.3 miles on the west bank, and 101.2 miles of hurricane protection along the shore of Lake Pontchartrain and canals connected thereto. The levee district is also responsible for operating and maintaining the Bayou Bienvenue control structure. The structure is well maintained in and in excellent condition.

The mainline river levees and floodwalls were inspected on 7 November 2002, and the hurricane protection levees were inspected on 31 May 2002. Both flood protection systems were in exceptional condition. There are still 2.3 miles of MR&T flood protection work remaining in this district. The remaining work is on the east bank of the Mississippi River and consists of the Carrollton levee (1.9 miles) and the New Orleans District floodwall Phase I (0.4 miles). These items are considered low priority and are delayed indefinitely.

Hurricane flood protection work within Orleans Parish is approximately 97% complete and all work is scheduled to be completed by 2004-2005. The remaining major construction work involves the floodproofing of the bridges along 17th St. and London Avenue outfall canals, the fronting protection structures for the pumping stations, levee enlargements, and miscellaneous floodwall cappings. An ACCEPTABLE rating is assigned.

l. **PONTCHARTRAIN LEVEE DISTRICT**

This district is responsible for maintaining 124.9 miles of levee on the east bank of the Mississippi River from 0.3 miles below the I-10 bridge in Baton Rouge to the St. Charles-Jefferson Parish line.

The levee was inspected on 12 November 2002. The levee, cattle guards, and fences are all well maintained and no significant deficiencies are noted. All major levee construction work within this levee district is now complete, except for several small gap closures, which are scheduled to be performed in FY03. An ACCEPTABLE rating is assigned.

m. **METROPOLITAN COUNCIL OF BATON ROUGE**

The Department of Public Works for Baton Rouge is responsible for maintaining 2.1 miles of levee on the east bank of the Mississippi River at Baton Rouge.

The levee was inspected on 12 November 2002, and is in excellent condition. The last item of levee construction work scheduled for this area is the Baton Rouge Front Phase 2 (0.2 miles). The project has been delayed several times in order to resolve borrow area concerns. The concept is for the construction of a small segment of low-level levee on the upstream end of the previously completed Phase 1 construction contract.

The results of the two soil nailing contracts that have been completed in an attempt to arrest the bank movement in this upstream area will be monitored for several years before proceeding with further levee construction work, including the repair of the concrete slope pavement that has cracked as a result of this movement. We are also continuing to evaluate the results from the inclinometers that were previously installed at the site to monitor the movement in this area. An ACCEPTABLE rating is assigned.

n. **PLAQUEMINES PARISH WEST BANK LEVEE DISTRICT**

This district is one of three levee districts under the direction of the Plaquemines Parish Government. This district is responsible for maintaining approximately 37.9 miles of levee on the west bank of the Mississippi River from the Orleans-Plaquemines Parish line to approximate river mile 44.0 AHP at Point Michel. This levee district is also responsible for maintaining 3 miles of the New Orleans to Venice, Louisiana Hurricane Protection Project from St. Jude to City Price, LA.

The inspection for the mainline Mississippi River levee was conducted on 15 November 2002. The levee is well maintained and in excellent condition. All MR&T levee construction work within this district is now complete. We also conducted an inspection of the hurricane protection levees within this district and the Buras Levee District on 29 May 2002, and all of the levees are well maintained and in excellent condition. An ACCEPTABLE rating is assigned.

o. **BURAS LEVEE DISTRICT**

This district is also under the direction of the Plaquemines Parish Government and is responsible for maintaining 34.1 miles of levee on the west bank of the Mississippi River from Point Michel to Venice, LA, and approximately 34 miles of hurricane protection levees (Reach A, Reach B-1, and Reach B-2) behind the river levee.

The mainline Mississippi River levee was inspected on 15 November 2002, and it is well maintained and in excellent condition. All MR&T construction work on the Mississippi River levee in this district is now complete; however, additional levee enlargement work to incorporate hurricane protection above the MR&T design grade is still ongoing within this district. There are several second lift levee enlargement projects scheduled for FY03 and FY04. We also conducted an inspection of the hurricane protection levees within this district on 29 May 2002, and the levees are all well maintained and in excellent condition. We conducted a periodic inspection of the Empire floodgate on 25 June 2002, and it was determined that the structure is well maintained and in good condition. An ACCEPTABLE rating is assigned.

p. **EAST JEFFERSON LEVEE DISTRICT**

This district is responsible for maintaining 11.6 miles of levee on the east bank of the Mississippi River and 17.5 miles of hurricane protection levees and floodwalls along and adjacent to Lake Pontchartrain, within Jefferson Parish.

The river levee, hurricane protection levees, and floodwalls were inspected on 22 November 2002. The only remaining river levee work in this district is 0.8 miles in the Jefferson Heights area and it is scheduled for FY 03. The deficiencies are minor (1 to 2 feet) and are considered low priority since they are within freeboard. The remaining hurricane protection work in Jefferson Parish consists of lakefront levee enlargements, and completion of the construction of floodproofing of the Hammond Highway Bridge crossing the 17th St. Canal. In FY 03, work will continue on the replacement of the Hammond Highway Bridge, and if funding permits, levee enlargement contracts will be awarded in Reach 1 in the spring of 2003 and in Reach 4 in the summer of 2003. The river and hurricane protection levees and floodwalls are exceptionally well maintained. An ACCEPTABLE rating is assigned.

q. **SOUTH LAFOURCHE LEVEE DISTRICT**

This district is responsible for maintaining the Larose to Golden Meadow Hurricane Protection Project which consists of 43 miles of hurricane protection levee, six pumping stations, and two floodgates (Larose and Leon Theriot, formerly Golden Meadow).

Since the hurricane protection levees are still under construction, a formal inspection will not be conducted until completed reaches of the levee system have been "turned over" to the levee district. However, in the interim a joint inspection of the system was conducted on 20 June 2002, and although the levees are still under various stages of construction they, along with the Larose and Leon Theriot floodgates, are well maintained. An ACCEPTABLE rating is assigned.

r. **Town of Grand Isle**

An inspection of the beach and sand dune hurricane protection project was conducted on 9 October 2002. The situation with the Town of Grand Isle concerning the condition of the beach and sand dune hurricane protection project has not changed since the last report. There are still some areas of the sand dune and beach within the project limits that are deficient as a result of being impacted by storms over the last several years as well as Tropical Storm Isidore and Hurricane Lili this year. The damage is significant enough such that a contract needs to be awarded by the co-sponsors of the project (LA DOTD and the Town of Grand Isle) to restore the sand dune and beach back to project conditions.

After Tropical Storm Isidore, the Town of Grand Isle tried advanced measures to repair the sand dune in the area that was previously impacted by storms. In an attempt to try and repair the dune before being impacted by Hurricane Lili, Grand Isle tried repairing the dune by installing hauled in clay material and then wrapping it with geotextile material. Their attempt to close the entire gap prior to Hurricane Lili's landfall fell short. Fortunately, for the Town of Grand Isle, Hurricane Lili's strength weakened from a category 4 to a category 2 prior to reaching landfall at a location that was farther west of Grand Isle.

As a result of the two storms this year, the Town of Grand Isle has once again requested PL84-99 funding for the damages sustained to the project. The request is being processed and no decision has been made as of this time.

The Federal government's contribution towards restoring the project is contingent upon the co-sponsors securing their share of the necessary funding from the State to rehabilitate the project. The co-sponsors had secured funding from the State; however, after HQUSACE decided that the damages sustained to the project by past storms dating back from the 1990's did not qualify for PL84-99 funding, the co-sponsors have had to request additional funding from the State legislature. So far, the co-sponsors have not been successful in obtaining this additional funding. HQUSACE contends that the sustained damages to the project from the 1990's storms should be covered under normal routine maintenance as described in the sponsor's operations and maintenance manual. As a result of this decision, the Federal government's O&M contribution has increased, however, it's not enough to offset the loss of PL84-99 funding. The sponsors are also trying to secure additional Federal funding for the project through Congressional channels. In the condition this project is currently in, it is rated unacceptable according to engineering guidelines.

s. **SMALL FLOOD CONTROL PROJECTS, NEW ORLEANS AREA**

In accordance with ER 1130-2-530 dated 30 October 1996, Chapter 3, Section 3b., small flood control projects authorized under Section 2 of the Flood Control Act of 1937 or Section 5 of the Flood Control Act of 1948 need not be inspected unless they are being considered for emergency rehabilitation under PL 84-99. The small flood control projects that we have inspected and reported on annually in the past are not under PL84-99 consideration, and therefore, were not inspected this year.

Historically, we have not had any problems with these projects, and unless we receive complaints or any reports of problems they will not be inspected. We will continue to monitor the semi-annual reports that the local sponsors are required to submit, and will investigate any problems that are reported. The semi-annual inspection reports that our office has received in the past from the local interests have indicated that the projects are in satisfactory condition.

