



**GULF STATES UTILITIES COMPANY**

TRIER BEND STATION POST OFFICE BOX 220 ST FRANCISVILLE LOUISIANA 70775  
AREA CODE 504 639-6094 346-8651

May 25, 1988  
RBG-27971  
File No. G1.11.7

Mr. Myron O. Knudson, P.E.  
Director, Water Management Division (6W)  
U.S. Environmental Protection Agency, Region IV  
Allied Bank Tower at Fountain Place  
1445 Ross Avenue  
Dallas, TX 75202-2733

Dear Mr. Knudson:

NPDES Permit No. LA0042731  
River Bend Station - Unit 1

Gulf States Utilities (GSU) hereby requests modification of permit requirements for Outfall 002 of NPDES Permit No. LA0042731. Revision of Outfall 002 is requested to add a new Outfall 02A to be comprised of treated chemical metal cleaning wastewater.

River Bend Station is a nuclear-fueled steam electric generating station located on the east bank of the Mississippi River south of St. Francisville in West Feliciana Parish, Louisiana. Station cooling is provided by forced draft cooling towers and noncontact cooling water. Makeup to the cooling systems is drawn from and blowdown is discharged to the Mississippi River.

The proposed outfall would consist of treated chemical metal cleaning wastewaters which would be discharged to Outfall 002 (low-volume waste) neutralization tanks for inclusion with demineralization regeneration and rinse water, auxiliary boiler blowdown, and demineralizer and auxiliary boiler room floor drainage.

The wastewater will be generated from chemical metal cleaning of plant cooling system components and piping. The water will be treated by the contractor performing the cleaning operations for removal of iron and copper to achieve discharge concentrations of 1.0 mg/l or less of each. Chemical metal cleaning would be performed on an as-needed basis. Waste sludges from the treatment of the wastewater would be disposed of off-site in accordance with applicable solid/hazardous waste regulations. Discharges of the treated water would be periodic and would be monitored for flow once per day when chemical metal cleaning wastewaters were being generated, at the point(s) of release from the contractor's treatment equipment to Outfall 002.

Inasmuch as Outfall 02A would consist of a new wastewater type, no characterization representative of River Bend Station is available. It is expected that the treated chemical metal cleaning wastewaters would be similar to those produced by such processes at other steam electric generating facilities in the region. The main constituents of the surfaces to be cleaned

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are copper, iron, and zinc (attached Table), while the deposits to be removed are expected to consist of these metals, as well as silica and calcium. Concentrations of these materials can be reduced by means of available technology to levels acceptable under the standards provided in 40CFR423.

The effluent of proposed Outfall 02A would be discharged to one of two 30,000-gallon tanks and neutralized prior to discharge as part of Outfall 002. Outfall 002 is monitored for total suspended solids (TSS) and oil and grease (O&G). Outfall 002 limits for TSS are a maximum of 100 mg/l and a daily average of 30 mg/l, while its limits for O&G are a maximum of 20 mg/l and a daily average of 15 mg/l. Outfall 002 discharges as a previously monitored effluent to Outfall 001 where pH is monitored with limits of 6.0 SU minimum and 9.0 SU maximum. Thus, ultimate discharge of proposed Outfall 02A would be to the Mississippi River via Outfall 001. A revised station water flow diagram incorporating the proposed Outfall 02A is attached.

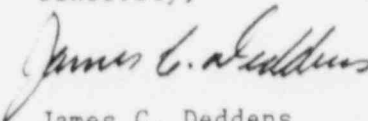
Addition of new Outfall 02A to NPDES Permit No. LA0042731 is requested with monitoring of iron and copper once per week, when discharging, with limits of 1.0 mg/l maximum and average for each parameter, in accordance with the provisions of 40CFR423. Monitoring of pH, TSS, and O&G, also required for chemical metal cleaning wastewaters, will be accomplished at Outfalls 001 and 002. No adjustment in the currently permitted volumes at Outfalls 001 and 002 will be required.

Should you require further information, please contact Mr. James W. Cook at the above address or at (504) 381-4151.

#### CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,



James C. Deddens  
Senior Vice President  
River Bend Nuclear Group

JCD/JEB/LJE/JVC/JWC/ch

May 25, 1988

Attachments:

Table - Metallurgical Composition of Portions of Cooling Systems Subject to Possible Chemical Cleaning

Figure - Station Water Flow

cc: Ms. Maureen O'Neill, Assistant Secretary  
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Department of Environmental Quality  
Post Office Box 44091, Capitol Station  
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GULF STATES UTILITIES COMPANY - RIVER BEND STATION

METALLURGICAL COMPOSITION OF PORTIONS OF COOLING SYSTEMS SUBJECT TO  
POSSIBLE CHEMICAL CLEANING

<u>Material</u>	<u>Percentage of Surface Area</u>
Admiralty Brass (approx. 70/30 ratio, Cu and Zn)	64.40
Carbon Steel	12.37
90/10 Cu and Ni	11.96
70/30 Cu and Ni	7.25
Cu	3.54
304 Stainless Steel (Fe, Cr, and Ni)	0.21
Muntz Metal (Cu and Zn)	0.19
Titanium	0.05
Cast Iron	0.01
Galvanized Iron	0.01
Aluminum - Bronze	0.01

