

**RIVER BEND STATION  
APPROVAL SHEET  
STATION OPERATING PROCEDURES**

NO. ADM-0053

TITLE ASIATIC CLAM CONTROL PROGRAM

SAFETY RELATED YES  NO

TECHNICAL REVIEW REQUIRED YES  NO

REV. NO.	PAGES ISSUED	INDEP. REVIEW SIGNATURE/DATE	TECH. REVIEW SIGNATURE/DATE	APPROVED BY SIGNATURE/DATE	EFFECT DATE
0	1 THRU 7	<i>A. J. Paulin</i> 6/10/85 DPO	FRC MTG. 85-23 <i>Philip B. Johnson</i> 6/10/85	<i>T. W. Lambert</i> 6-11-85	06-16-85

FOR INFORMATION ONLY  
ISSUED  
JUN 12 1985  
STATION DOCUMENT CONTROL

8507010356 850621  
PDR ADOCK 05000458  
A PDR

COOL  
YI

ASIATIC CLAM CONTROL PROGRAM

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE NO.</u>
1.0 PURPOSE/APPLICABILITY	2
2.0 REFERENCES	2
3.0 RESPONSIBILITIES	2
4.0 ADMINISTRATIVE CONTROLS	4
5.0 GENERAL REQUIREMENTS	4
5.1 Monitoring and Trending of Safety Related Equipment Using Service Water	4
5.2 Biological Monitoring for Asiatic Clams	4
5.3 Sampling & Visual Inspections	5
5.4 Chlorination	6
5.5 Reporting	6

N/A

N/A

ADM - 0053

REV - 0

PAGE 1 OF 7

## 1.0 PURPOSE/APPLICABILITY

- 1.1 This procedure establishes the program for prevention and detection of Asiatic clams, performance monitoring of safety related equipment using normal service water, and the required reporting.
- 1.2 This Program shall apply to all Station Operating Personnel, Environmental Services Personnel, and Licensing Personnel responsible for the monitoring, detection, preventative maintenance, and reporting as required by this procedure.
- 1.3 This procedure becomes applicable upon introduction of river water into the normal service water system.

## 2.0 REFERENCES

- 2.1 RBS Technical Specifications Sections 6.8.4.d and 6.9.2.b
- 2.2 IE Bulletin 81-03 Flow Blockage of Cooling Water to Safety System Components by Corbicula sp. (Asiatic Clams) and Mytilus sp. (Mussel)
- 2.3 ESP-8-049 Biological Monitoring for Asiatic Clams
- 2.4 ADM-0048 Performance Monitoring and Trend Analysis Program
- 2.5 PEP-0025 Biofouling Detection of Safety Related Equipment
- 2.6 PMP-8047 Preventative Maintenance Inspections and Sampling for Biofouling
- 2.7 SOP-0094 Hypochlorination and Chemical Feed
- 2.8 ADM-0010 Station Reporting Requirements
- 2.9 RBG-18715 Letter Booker (GSU) to Seyfrit (NRC) dated August 21, 1984
- 2.10 Joint Intervenors and State of Louisiana's motion to withdraw contention 1 related to the ASIATIC clam. Dated October 10, 1984
- 2.11 ADM-0019 "Initiation and Processing Condition Report"

## 3.0 RESPONSIBILITIES

- 3.1 Plant Manager has overall responsibility to ensure this program is implemented in accordance with commitments to the NRC and Technical Specification Requirements.

N/A	N/A	ADM-0053	REV - 0	PAGE 2 OF 7
-----	-----	----------	---------	-------------

- 3.2 Supervisor Environmental Services, or designee, is responsible for ensuring that biological monitoring is conducted in accordance with Reference 2.3 and for reporting per section 5.5 of this procedure.
- 3.3 Mechanical Maintenance Supervisor, or designee, is responsible for coordination of the inspection and sampling of Safety related equipment in accordance with Reference 2.6.
- 3.4 Process Systems Supervisor, or designee, is responsible for ensuring that Performance monitoring and trend analysis are carried out in accordance with Reference 2.4 and 2.5. Results shall be submitted to the Supervisor Environmental Services for reporting purposes.
- 3.5 Assistant Plant Manger Technical Services Responsible for review of ACCP per section 4.1 of this procedure.

4.0 ADMINISTRATIVE CONTROLS

4.1 Review

- 4.1.1 Review of the ACCP and its results for adequacy shall be conducted after each twelfth quarterly report (once every three years). This review will be conducted by the Supervisor Environmental Services and Assistant Plant Manager Tech Services. A review for adequacy will also follow any Licensee Event Report attributable to Asiatic clams.

4.2 Record Retention

- 4.2.1 Records relative to the ACCP shall be retained for five years and shall include the following:
  - a. ACCP Reviews
  - b. Licensee Event Reports attributable to Asiatic Clams
  - c. Request for changes
  - d. Quarterly reports

4.3 Changes to the ACCP

- 4.3.1 Requests for changes to the ACCP must be submitted to the NRC and should include an assessment of the proposed changes and supporting justification. Written approval of the proposed changes from the NRC shall be received prior to their implementation.

N/A	N/A	ADM-0053	REV - 0	PAGE 3 OF 7
-----	-----	----------	---------	-------------

## 5.0 GENERAL REQUIREMENTS

### 5.1 Monitoring and Trending of Safety-Related Equipment using Normal Service Water.

5.1.1 The Performance Engineer is responsible for monitoring and trending the performance of Safety Related Equipment in accordance with Reference 2.4 and 2.5.

- a. The Performance Engineer will submit reports quarterly to the Process Systems Supervisor in accordance with section 5.5 of this procedure.
- b. Performance Monitoring will be conducted monthly on the following equipment:
  - 1) Control building Water Chiller Condensers
  - 2) Auxiliary Building Unit Coolers
  - 3) Emergency Diesel Generators
  - 4) Residual Heat Removal Heat Exchangers
  - 5) Penetration Leakage Control Compressors and after coolers.
- c. Trending will be accomplished in accordance with Reference 2.4. Heat exchanger not meeting performance Acceptance Criteria shall be removed from service, inspected and corrective action taken.

### 5.2 Biological Monitoring for Asiatic Clams

5.2.1 Biological monitoring for Asiatic Clams will be accomplished in accordance with Reference 2.3. Monitoring will be performed to detect the presence or relative abundance of corbicula in the following areas:

- a. Mississippi River - Semi-Monthly April thru November, Monthly December thru March
- b. Intake Embayment - Monthly
- c. Normal Cooling tower Basins - Monthly - one basin each Month
- d. Clarifier Influent - Semi-Monthly April thru November, Monthly December thru March

N/A	N/A	ADM-0053	REV - 0	PAGE 4 OF 7
-----	-----	----------	---------	-------------

- e. Clarifier Effluent - Weekly April thru November, Monthly December thru March

5.2.2 During any period of interruption of continuous chlorination of the Normal Services Water System greater than 48 hours per step 5.4.1 of this procedure, sampling frequency of the clarifier effluent shall increase to daily.

5.3 Sampling and Visual Inspections

5.3.1 Visual inspection and sampling will be performed by the Mechanical Maintenance section and the Environmental Services Section in accordance with Reference 2.6. The following equipment will be inspected at the prescribed intervals. Environmental Group will take samples of sediment in each component to be analyzed for the presence of Asiatic clams.

- a. Control building Water Chiller Condensers - Yearly (One Condenser each Quarter)
- b. Auxilliary Building Unit Coolers - Yearly (One Cooler each month)
- c. Emergency Diesel Generator Coolers - each cooler every Refueling Outage
- d. Penetration Leakage Control Compressor After Coolers - Yearly (One Cooler each 6 months.)
- e. RHR Heat Exchangers - each heat exchanger every Refueling Outage.

5.3.2 In the event Service Water is cross connected with the Fire Protection or RPCCW System, the Shift Supervisor/Control Operating Foreman shall be responsible for notifying the Mechanical Maintenance Supervisor, and the responsible System Engineers. Cross connection will require preventative maintenance in accordance with the applicable section of Reference 2.6. The affected system will be flushed with demineralized water to remove any infestations.

N/A	N/A	ADM-0053	REV - 0	PAGE 5 OF 7
-----	-----	----------	---------	-------------

5.3.3 If any Sampling inspections reveal juvenile or adult clams in any heat exchanger listed in Step 5.3.1 above, performance testing of all other Safety-Related components monitored in section 5.1.1 will be conducted within seven (7) days. A Condition Report will be generated in accordance with Reference 2.11 which identifies the amount of clams relative to the size of the heat exchanges, systems affected and corrective actions taken to prevent further spread of clams.

#### 5.4 Chlorination

5.4.1 Chlorination will be in accordance with Reference 2.7. The chlorination system will be operated continuously during the months of April thru November to maintain total free residual chlorine concentration between 0.6 ppm and 0.8 ppm in the Service Water return header as read on recorder 1-WTH-AR144. The Service Water Return Header Chlorine Hi/Low alarm setpoints will be 0.3 ppm Lo and 1.1 ppm Hi. In the event the chlorination system is not able to maintain greater than .3 ppm residual chlorine, a Condition Report shall be initiated within 24 hours in accordance with Reference 2.11.

5.4.2 Chlorination during the months of December thru March should be maintained at a level to control biofouling, without exceeding the chlorine discharge limits of the NPDES permit.

#### 5.5 Reporting

5.5.1 Report preparation will be the responsibility of the Environmental Services Group Supervisor, and will be in accordance with Reference 2.8. Reports will be submitted on a quarterly basis to the Joint Intervenors following the end of each calendar quarter. The period of the first report will begin upon initial introduction of river water into the Normal Service Water System and will include at least one full calendar quarter. The reports will contain a summary of the ACCP activities at River Bend Station and copies of NPDES monitoring reports of chlorine discharges for the quarter. The Process System Supervisor, or designee, will provide trend analysis results of systems using river water to the Supervisor Environmental Services for inclusion in this report. Copies of this report will be submitted to the Nuclear Licensing group for formal submittal to the State of Louisiana and the NRC.

N/A	N/A	ADM-0053	REV - 0	PAGE 6 OF 7
-----	-----	----------	---------	-------------

5.5.2 Upon identification of infestation of any Clams in a Safety-Related system of a magnitude which causes or may cause flow blockage, a report will be submitted to the NRC within 30 days describing the level of infestation, affected system, and measures taken to prevent further infestation.

N/A	N/A	ADM-0053	REV - 0	PAGE 7 OF 7
-----	-----	----------	---------	-------------





**GULF STATES UTILITIES COMPANY**

POST OFFICE BOX 2951 • BEAUMONT, TEXAS 77704

AREA CODE 713 838-6631

June 21, 1985

RBG- 21363

File No. G9.5

Mr. H. R. Denton, Director  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dear Mr. Denton:

River Bend Station - Unit 1  
Docket No. 50-458

Enclosed for your review is our Asiatic Clam Control Program for River Bend Station.

Any questions or comments should be directed to Mr. James Cook at (409) 839-3013.

Sincerely,

*J. E. Booker*

J. E. Booker  
Manager-Engineering,  
Nuclear Fuels & Licensing  
River Bend Nuclear Group

JEB/JWC/lp

Enclosure

*Cool  
1/1*