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GULF STATES UTILITIES COMPANY

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September 19, 1984
RBG-18,920
File Code G9.5

Mr. Harold 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

Gulf States Utilities Company is preparing a tax exempt bond financing for pollution control facilities at its River Bend nuclear generating station. The Internal Revenue Service requires that a federal, state or local agency exercising jurisdiction certify that the facility to be financed with tax exempt bonds is in furtherance of the purpose of abating or controlling atmospheric pollutants, or contaminants, or water pollution.

For radioactive pollution control equipment, our counsel has advised us that the required certification be obtained from the Nuclear Regulatory Commission. We have prepared a form of certificate (attached herewith) which will meet the Internal Revenue Service's requirements. In addition, we have included a description of the pollution control equipment we wish to be covered by the certificate. We understand that you have received and approved this type of certificate for several utilities.

Please review the attachments, and if you agree, sign and return the certificate to Gulf States Utilities Company by October 3, 1984 or sooner if practicable. If there are any questions with regard to this, please contact Mr. Bill Reed of my staff at 409 839-2882.

Very truly yours,

W. J. Cahill, Jr.
Senior Vice President
River Bend Nuclear Group

WJC/WJR/kt

Attachments

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CERTIFICATE

RIVER BEND STATION

POLLUTION CONTROL FACILITIES

The Nuclear Regulatory Commission hereby certifies as follows:

- (a) that it has examined exhibits, attached hereto, which describe certain facilities which have been constructed, which are under construction or which are to be constructed at the River Bend Station, a nuclear electric generating plant located 25 miles north of Baton Rouge, Louisiana, near the Mississippi River, owned 70% by Gulf States Utilities Company and 30% by Cajun Electric Power Cooperative, Inc.; and

- (b) that such facilities, as designed, are in furtherance of the purpose of abating or controlling atmospheric pollutants or contaminants or water pollutants resulting from the generation of electricity at the River Bend Station.

For the Nuclear Regulatory Commission

Date: _____

1. Radioactive Liquid Waste (Liquid Radwaste) System

The Liquid Radwaste System collects, monitors, and processes for reuse or disposal all potentially radioactive liquid wastes generated within the plant. The liquid waste includes all equipment drains, floor drains, chemical wastes, and sludges. The Liquid Radwaste System processes this liquid waste to provide condensate quality water for reuse within the plant.

The basic function of the radwaste system is performed by filters and demineralizers. This equipment removes suspended and dissolved solids from the liquid input to the system. In addition, tanks, pumps, valves, instrumentation, and other equipment are used to functionally support the operation of the system. Radioactive solids collected in this system are transferred to solid radwaste for further processing.

2. Radioactive Solid Waste (Solid Radwaste) System

The Solid Radwaste System prepares for shipment and disposal radioactive solid wastes generated within the plant. Waste transferred from liquid radwaste is collected in the waste sludge tank prior to solidification or dewatering. The dewatered and solidified waste can be shipped in containers to a disposal site.

In addition, dry active waste (DAW) is collected and compacted in this system. DAW includes contaminated paper, rags, clothing, tools, etc. which must be disposed of as solid radwaste. This waste is compacted in containers for shipment and disposal.

The solid radwaste system consists of the following equipment:

1. One 6,200 gallon waste sludge tank, complete with level detection devices and mixing and flushing equipment.
2. One waste sludge pump with associated controls and instrumentation.
3. One indoor, electric, overhead, single-trolley bridge crane.
4. One waste compactor.

3. Radwaste Building

The Radwaste Building is a reinforced concrete, seismically analyzed structure. Its purpose is to house the Liquid Radwaste System and the Solid Radwaste System: no other River Bend Station equipment is located in the Building and therefore all of the Radwaste Building is considered to be functionally related and subordinate to the Liquid Radwaste System and the Solid Radwaste System.

4. Radioactive Gaseous Waste (Offgas) System

The radioactive Gaseous Waste System uses a low temperature gas treatment system to remove radioactive noble gases, radioactive iodine and other biologically significant radionuclides from the condenser air ejector offgas prior to release to the atmosphere. A mixture of steam and radioactive gases enters the system through the steam jet air ejectors. The steam and moisture are removed from the offgas by use of the recombiner, cooler-condenser and desiccant dryer. The charcoal beds use activated charcoal for retention of radioactive noble gases and removal of other radionuclides including iodine. The retention time of the noble gases facilitates radioactive decay, thus reducing the activity of any radionuclides released. The treated offgas is released to the atmosphere through the plant exhaust duct. The system is designed to reduce offsite radiation doses below the limits set in 10CFR50, Appendix I and to meet the criterion "As Low as Reasonably Achievable" (ALARA).

5. Condensate Demineralizer and Offgas Building

The Radioactive Gaseous Waste (Offgas) System is located in a structure attached to the Turbine Building called the Condensate Demineralizer and Offgas Building. The portion of this building which houses the offgas system is functionally related and subordinate to the offgas system and is included as a part of the facility. The structure consists of four floors, two of which are occupied by offgas equipment. Only those portions of the building which are used to house offgas equipment are included as part of the facility.

6. Monitoring Equipment

A Digital Radiological Monitoring System (DRMS) measures, indicates, and records the levels of radiation and radioactivity associated with the gaseous and liquid effluent flow from the plant to satisfy the requirements of ALARA. The DRMS also activates alarms and initiates appropriate control action when predetermined radioactivity levels are in danger of being exceeded. Only that portion of the DRMS that monitors effluents being discharged to the environment is included as part of the facility.

An isotkinetic sampler is provided to sample gaseous releases. This is necessary to verify the performance of the offgas and filtered exhaust systems.

7. Plant Exhaust Air Filtering Systems

The Station contains five air filtering systems which are used to reduce radioactivity releases from plant air exhausts. These air

filters are incorporated into heating, ventilation and air conditioning systems so that exhaust air is filtered prior to release to the atmosphere.

The air filters used in these systems have the same basic configuration, with various capacities depending on design requirements. The filters consist of a demister, heating element, high efficiency particulate air (HEPA) filter, charcoal filter and another HEPA filter, all mounted in a welded metal housing. The filtering systems include a decay heat removal fan for removal of heat generated by radioactive materials trapped in the filter media. Controls and power are provided for the electric heater, fans and inboard and outboard isolation dampers. Radiation monitoring is provided to detect releases of radiation.

8. Spent Fuel Handling and Storage

This facility includes (i) equipment used to remove spent fuel from the reactor, (ii) equipment used to transfer the spent fuel to the Fuel Building, (iii) spent fuel pool and storage racks used for storage prior to shipment, (iv) spent fuel pool cooling and clean-up equipment, (v) equipment used to transfer spent fuel from the pool to a spent fuel shipping cask for shipment offsite, and (vi) equipment used to handle the shipping cask. In addition, that portion of the Fuel Building which is used to house the equipment listed above is included as a part of the facility.