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February 11, 1987

Mr. Darrell G. Eisenhut  
Division of Operating Reactors  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Eisenhut:

- o Docket No. 50-6 Facility License R-4  
Retired Facility (BRR - Battelle Research  
Reactor, Building JN-3

This report summarizes factors pertinent to the radiological status of the retired facility for the calendar year 1986 as required by technical specification 5.5.1.

#### Facility Location

The facility is located in Building JN-3, Battelle's Columbus Division (BCD), West Jefferson, North Site, about one quarter mile East of State Road 142.

#### Retired Facility Site Representative (RFSR)

The Radioactive Materials Subcommittee (RSC-1) of the BCD Radiological Safety committee maintains purview of the facility and audits the radiological status.

#### Facility Status

The radiological aspects of the retired facility are subject to the conditions of the technical specifications of the R-4 license. Proposed uses of the facility must be approved by the RFSR and are subject to overview of RSC-1.

Dr. Jeff Means replaced N.E. Miller as chairperson of the RSC-1 subcommittee during 1986.

The general physical arrangements within the building remain the same as reported for the calendar year 1985.

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### Security and Surveillance

The facility remains within the confines of the fence and protected Nuclear Sciences area. Twenty-four-hours-a-day surveillance and area access control is maintained by armed security inspectors. Unescorted area access is limited to persons with appropriate DOE clearance and approved for access by security and site management. All others must be escorted by a staff member cleared and on the access list.

### Environmental Survey

On-site and off-site environmental monitoring is continued for the Nuclear Sciences area according to DOE and NRF requirements. A report of the data from the monitoring program is developed annually. A copy of the report, which will be distributed this month, is being forwarded to Leland Rouse, Division of Fuel Cycle and Materials Safety. The raw data compiled for the report do not indicate any unusual conditions which may be attributable to this facility.

### Retired Facility Surveys

Quarterly surveys, as required by the technical specifications, are continued. These include smears, at approximately eighty (80) locations, evaluated for alpha and beta activity, and exposure dose rates at the ten highest locations. All smear and exposure data over the year have been within acceptable limits and no abnormal conditions were noted. During the 1987 year this facility will also have radiological surveys performed under the DOE surveillance and maintenance program in preparation for decontaminating and decommissioning.

### Water Monitor

All water collected in the interior sump from the old hot drain system is pumped to an outside sump through a monitoring chamber. The pump is controlled by the monitor. If the set point is exceeded, the monitor alarms and interrupts the electric power to the pump. The monitor employs a downscale failure alarm as well. Instrument laboratory personnel perform monitor servicing including weekly response checks and calibration with Cs-137 solutions at approximately annual intervals.

### Facility Uses

Current uses are:

#### Basement Area:

- (1) Old pump room, North East basement.
  - o Drain sump, water monitor, and sump pump.
  - o Storage of project archive samples packaged in cans.
- (2) North basement, storage of 55 gallon drum packages of Pu bearing waste.

(3) West basement.

o Storage of three, crated, used/cleaned Pu glove boxes. These glove boxes remain stored with shipment being delayed by the purchaser.

(4) South basement.

o Used as a emergency assembly area.

o South East basement:

1. Storage of small equipment items on shelves.

2. Furnace room.

Ground Floor:

(1) West end, old shop area - source storage and instrument calibration area.

(2) G.E. pool area, no specific use.

(3) The ground floor rooms are used for offices and storage of miscellaneous equipment on standby for radiological emergency use. Offices are planned to be relocated during 1987.

Second Floor:

(1) Northwest Laboratory room - no operations.

(2) North side open bay storage of empty 55 gallon, new, drum shipping containers.

(3) Open bay East, fabrication of wooden crates or bins when needed for waste shipments.

(4) Open bay South, storage and crate fabrication.

(5) South West, old control room, exercise room for security and plant protection personnel. This will be discontinued during 1987.

(6) Main pool area - no use currently.



Letter to: U.S. NRC  
From: G. B. Roe  
Occurrences

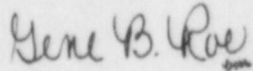
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There were no reportable occurrences during 1986 associated with operations conducted in the building.

If you have questions or require additional information regarding this facility, please contact FRSR, Mr. E. B. Roe, (614) 424-5911 or site manager, Mr. H. L. Toy (614) 879-5228.

Sincerely,



Gene B. Roe  
Radiological Safety Officer  
Retired Facility Site Representative

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