



J. Phillip Bayne
Executive Vice President
Nuclear Generation

February 10, 1984
IPN-84-05

Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. Steven A. Varga, Chief
Operating Reactors Branch No. 1
Division of Licensing

Subject: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
Disposal of Drums Containing Charcoal

Dear Sir:

The charcoal fan beds that service the Primary Auxiliary and Vapor Containment buildings were recently recharged at Indian Point No. 3. This process generated 92 drums of charcoal which are currently being stored on site and require permanent disposal.

Each of the 92 drums was sampled and analyzed by gamma spectroscopy and the results are summarized in Tables 1 and 2. Review of the data with respect to current 10CFR30 exempt activity limits indicates that the entire mass of charcoal would be exempt with the exception of Co-60. On an individual drum basis, however, all of the drums are considered exempt.

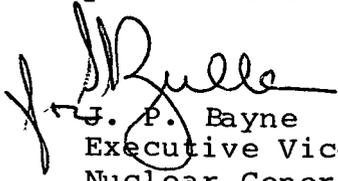
Review of past environmental reports provided a further, practical and important source of information with which to compare the results. Attachment 1 provides a summary of some of the pertinent environmental data that was considered. The levels of the radionuclides present in the drums of charcoal are in the range of corresponding levels in environmental media.

We conclude from our evaluation that no significant radiological impact on the environment or the general public would result from the disposal of the charcoal. Since the radiological impact will be negligible no description of the environmental characteristics of the disposal site is provided. Several drums at a time in relatively small quantities (a few cubic yards) would be disposed of and at no time would greater than licensable quantities be released. Therefore we request pursuant to 10CFR20.302(a) that the Authority be allowed to release this material to a local municipal landfill without radiological controls.

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Should you or your staff have any questions regarding this matter,
please contact Mr. P. Kokolakis of my staff.



J. P. Bayne
Executive Vice President
Nuclear Generation

cc: Resident Inspector's Office
Indian Point Unit 3
U. S. Nuclear Regulatory Commission
P. O. Box 66
Buchanan, New York 10511

TABLE 1

Charcoal - PAB/VC Fan Beds
Activity Data: Composite of 92 Drums¹

Nuclide	Total Act. ² uCi	Mean Act. ³ Concentration	Fraction of Exempt Concen.	Fraction of Exempt Act. (uCi) ⁴
Co-60	5.2	5.2E-7 uCi g ⁻¹	1.0 E-3	5.2
Cs-137	2.4	2.4E-7 uCi g ⁻¹	N/A	0.24
Cd-109	2.9	2.9E-7 uCi g ⁻¹	1.5 E-4	0.29
Kr-85	48	2.6E-6 uCi cc ⁻¹	8.7 E-1	0.48

NOTES:

1. Total net weight of charcoal = 1.0 E7 grams.
2. These four activities represent greater than 99% of the total activity in the entire volume of charcoal.
3. The detected concentrations are at or below current ETSR requirements for minimum detectable limits for liquid effluents (ETSR Table 2.4-1). All samples were utilized in the above determinations, those results that were less than MDC were averaged in as zero. Activities above are as of 1/31/84.
4. In all cases the activity per drum is at or below the exempt activity limit in 10CFR30 (See Table 2) and with the exception of Co-60 all activities are below 10CFR30 limits for the total mass of the charcoal.

TABLE 2

Maximum Activities Per Nuclide Per Drum

<u>Nuclide</u>	<u>Drum No.</u>	<u>Concentration</u> <u>uCi g⁻¹</u>	<u>Drum</u> <u>Weight</u> <u>Grams</u>	<u>Activity per</u> <u>Drum*</u> <u>uCi</u>
Co-60	27	9.0 E-6	1.1 E5	0.99
Cs-137	1	3.0 E-6	1.1 E5	0.33
Cd-109	60	1.6 E-5	1.2 E5	1.9
Kr-85	68	4.3 E-4	1.1 E5	47

* On a per drum basis, there is no drum that exceeds a 10CFR30 exempt activity limit. Activities are as of 1/31/84.

ATTACHMENT 1

SUMMARY OF PERTINENT HISTORICAL ENVIRONMENTAL DATA

A. Environmental Cs-137 levels from the 1982 Annual Report indicate that:

- i. Soil Sample activities ranged between 2.7 E-7 and $4.8 \text{ E-7 uCi g}^{-1}$ for mean annual activities.

The above range of activity concentrations however, indicate that the Cs-137 concentrations in the charcoal are less than the environmental levels. Therefore addition of the charcoal with the levels present will not significantly impact on the environment.

B. Comparison of K-40 activity in soil to total activity in the 92 drums:

The mean annual soil activity of K-40 for 1982 = $1.1 \text{ E-5 uCi g}^{-1}$. For a volume of soil equal to the total charcoal volume this would represent 110 uCi of K-40 alone. The total Co-60 activity of the charcoal in the 92 drums is less than one twentieth of the expected natural K-40 activity in an equal volume of soil.

Further, this amount of naturally occurring activity would be greater than the total activity in the drums of charcoal.

Indian Point 3
Nuclear Power Plant
P.O. Box 215
Buchanan, New York 10511
914 739.8200



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January 4, 1984
IP-DQ-14

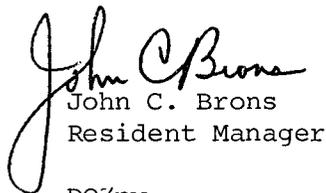
Dr. Thomas E. Murley
Regional Administration
Region 1
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Dear Mr. Murley:

I have enclosed a copy of the Semi-Annual Report of Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents for Indian Point 3 as required by Section 5.6.1.C of the Environmental Technical Specifications of Operating License of DPR-64 for Indian Point 3, Docket No. 50-286. The enclosed report covers the period January 1 through June 30, 1983, for Indian Point 3, and includes those releases from the Indian Point 1 and 2 liquid waste processing system, which resulted from processing liquid waste from Indian Point 3.

This report was sent to you on August 30, 1983 without Section E (Radiological Impact on Man) due to contractor computer difficulties. Section E is now complete, and the Semi-Annual Report is forwarded in its entirety.

Sincerely,


John C. Brons
Resident Manager

DQ/pw

Enclosure

cc: Director, Office of Nuclear
Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555
Attn: Documents Control Desk

Resident Inspector
Indian Point III

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