

HOWARD UNIVERSITY

OFFICE OF RADIATION SAFETY

December 6, 2013

Thomas K. Thompson
Senior Health Physicist
Nuclear Materials Safety Branch 1
Division of Nuclear Materials Safety
US NRC – Region I
2100 Renaissance Blvd
King of Prussia, Pennsylvania 19406

RECRG1122013AM09:14

?-7
MS-16

**SUBJECT: ADDITIONAL INFORMATION REQUESTED FOR AMENDMENT
APPLICATION – MAIL CONTROL NOS. 582468 AND 582469**

Dear Mr. Thompson,

03011063 03001321

Please see the below in response to your request for additional information to support the application to amend NRC licenses 08-00386-19 and 08-03075-07:

1. Please provide scoping and characterization survey information on the two areas so we can determine if the survey information you have provided is adequate for the potential residual byproduct materials that could be present at your facilities. You may find NUREG-1757, Vol. 1 and Vol. 2 helpful. This is located at our NRC website.

- a. The waste storage facilities at Annex-I and 500 College Street were primarily used for decay-in-storage of short-lived isotopes having $T_{1/2} \leq 120$ days. These facilities were also used for holding radioactive waste until picked up by an outside vendor for disposal. The waste was stored in 35 or 55 gallon drums. Heavy gaged plastic bags were placed inside each drum and bags of waste were placed inside those plastic bags. Therefore, the wastes never came in direct contact with the floor which is made of concrete.

Existing waste in both of these facilities were disposed using a local vendor- Radiation Service Organization (RSO), Inc. RSO, Inc. also conducted an initial survey of the facility at 500 College Street, the results of which were attached with the initial letter.



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582468/582469
NRC/RCN1 MATERIALS-022

**ADDITIONAL INFORMATION REQUESTED FOR AMENDMENT APPLICATION
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None of these facilities have been used since the waste was finally disposed. However, routine removable contamination and exposure rate surveys of both of the facilities were conducted weekly over the period of the activity. A quarterly survey, that includes exposure rate measurements and smear samples on each facility, were also conducted. No contamination has been observed at these facilities in recent years.

Based on the history of the facilities, the method of storage of wastes, and indication of no contamination by the routine contamination surveys, an assumption was made that no potential residual radioactivity was present and thus no decontamination or remediation efforts were necessary as defined in NUREG-1757.

2. **Additionally the Attachment 1 -detailed map of the site seems to be missing for the Annex I waste facility. Is this the same facility indicated as 501 Bryant Street on your 08-03075-07 license, Condition 10? Attachment 1 is also not clear for the 500 College Street facility. Although there is a map included which appears to be the area the room dimensions referenced as 13'9" x 19' are not indicated. Please clarify.**

- a. Detailed map of the sites (Basement of Annex I and 500 College Street buildings) are attached. The waste storage facilities in both of these locations are now indicated on the map. The dimensions of the waste facility in Annex I are 11'6" x 6'6", and those of the waste facility in 500 College Street are 13'9" x 19'.

The address 501 Bryant Street as indicated in our 08-03075-07 license (condition 10) appears to be incorrect. The correct address should be 516 Bryant Street, N. W. Washington D.C. A request will be made separately to amend this license to reflect the correct address.

3. **Page 5 of the application for release of the 500 College Street location indicates the gamma counter results as 55.2dpm/1100cm sq. This appears to be a typographical error. Please clarify.**

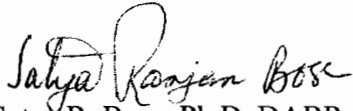
- a. This error is a typographical error. The sentence should read "55.2 dpm/100cm² " instead of "55.2 dpm/1100 cm² .

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Thank you for your time and service in this matter. Please feel free to contact me directly should you need any additional information.

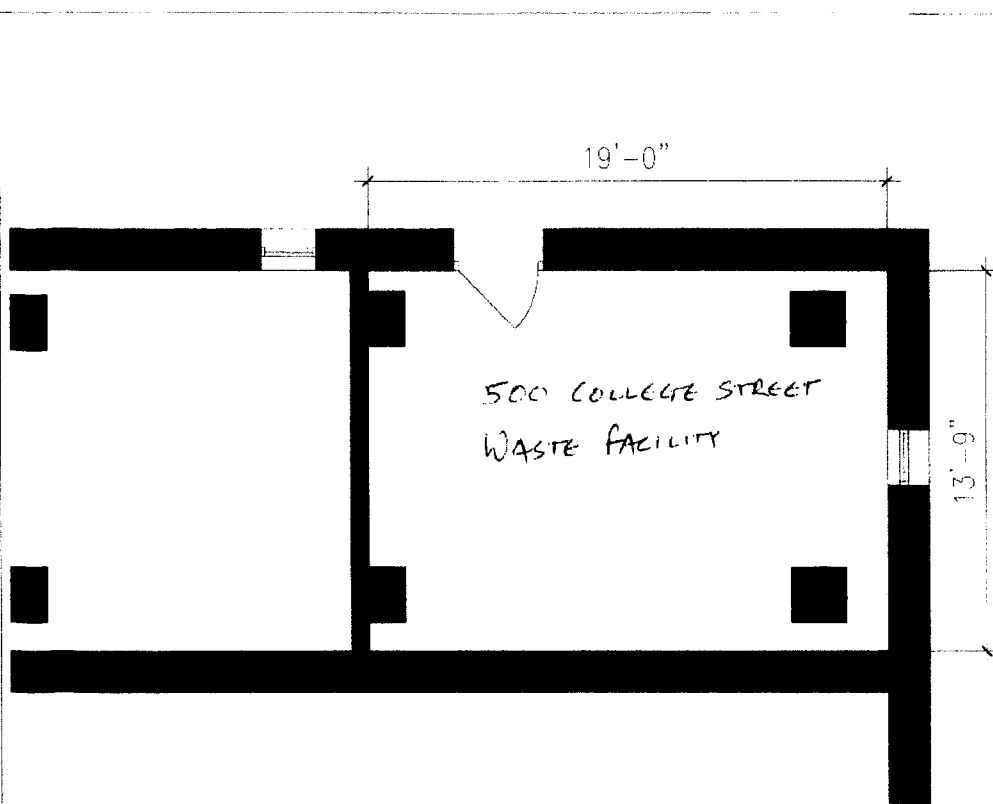
Sincerely,

A handwritten signature in cursive script that reads "Satya Ranjan Bose".

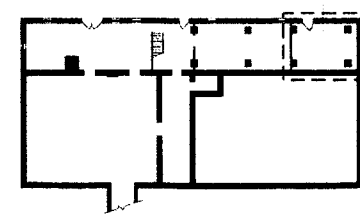
Satya R. Bose, Ph.D. DABR
Director of Radiation Safety
& Radiation Safety Officer

cc: Wayne A. I. Frederick, M.D., MBA
Interim President
Howard University

Sergei A. Nekhai, Ph.D.
Radiation Safety Committee, Chair
Department of Medicine, Associate Professor
Center for Sickle Cell Disease, Co-Director



1 PARTIAL PLAN - BASEMENT
SCALE: 1/4" = 1'-0"



2 KEY PLAN - LASER CHEMISTRY BUILDING - BASEMENT
SCALE: NTS



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Drawn by: J. Brown, AIA
Reviewed by: J. Brown, AIA
Checked by: J. Brown, AIA
Date: 05/14/13

Key Plan:

Revised: 05/14/13
Drawing Title: BASIN, SATELLITE OF
PROJECT: 05/14/13
SHEET: A-1



**HOWARD
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It is the responsibility of the
designer to provide all
necessary data for the
construction of the
project.

Howard University
Director of Architecture
and Engineering Services

Project:
1581301 - A-1

Key Plan:

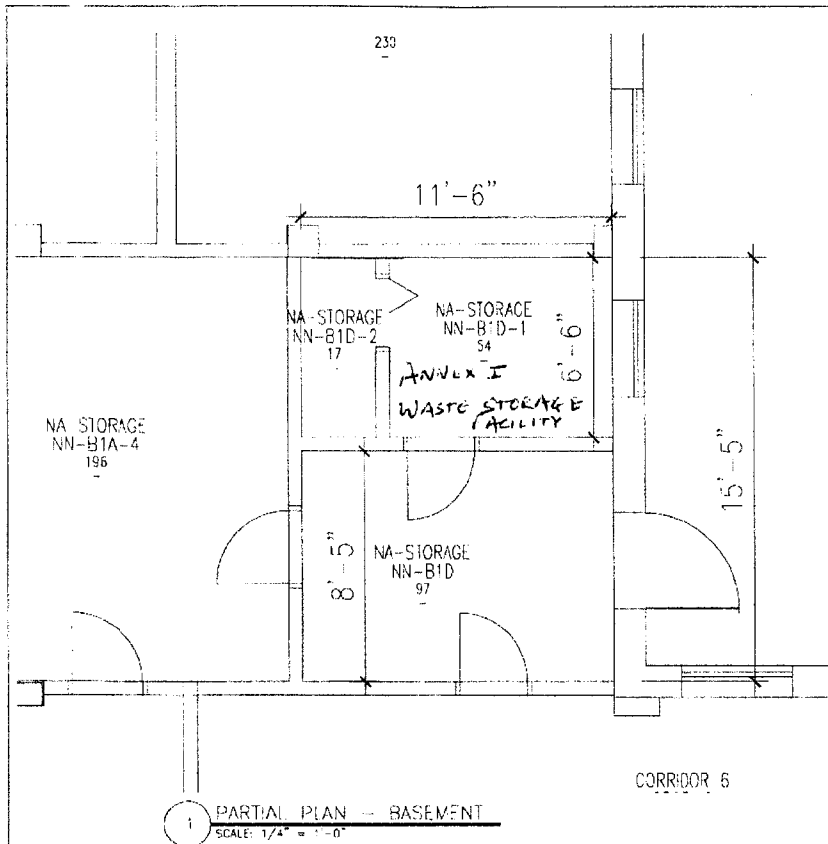
Submittals and Issues

	09/18/13

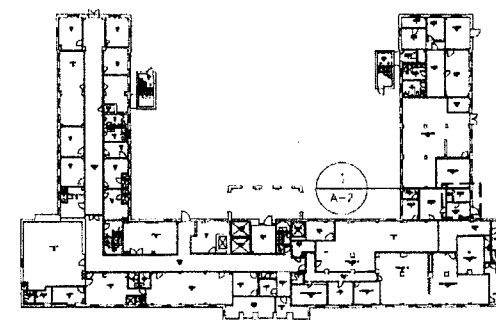
Existing Title
BIOETHICS SAFETY OFFICE
SPACE

PROJECT MANAGER
DANIEL M. JOHNSON
SCALE: AS SHOWN

A-1



Annex-I waste Storage Facility
is shown on this Diagram



2 KEY PLAN - ANNEX I - BASEMENT
SCALE: NTS