



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
 NATIONAL HEALTH AND ENVIRONMENTAL EFFECTS  
 RESEARCH LABORATORY  
 GULF ECOLOGY DIVISION  
 1 SABINE ISLAND DRIVE • GULF BREEZE, FL 32561-5299  
 850-934-9200

August 9, 2016

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OFFICE OF  
 RESEARCH AND DEVELOPMENT

NRC License No. 09-10672-02 <sup>03 SW</sup>

Betsy Ullrich, MS, CHP  
 Division of Nuclear Material Safety  
 U. S. Nuclear Regulatory Commission  
 Region I  
 2100 Renaissance Blvd., Suite 100  
 King of Prussia, PA 19406-2713

SUBJECT: Removal of BLDG 45 from NRC license no. 09-10672-02 <sup>03 SW</sup> / 03032959

REC-261081616RND

We are requesting approval of a survey plan to have Building 45 removed from our NRC license and be released for unrestricted use. Once the survey is completed, we will submit an amendment request to remove Building 45 from our NRC license. Although the Agency, the U.S.E.P.A., will retain possession of the facility to be used for contractor support and field staging activities.

**SITE IDENTIFICATION** - Building 45 is located at 1 Sabine Island Drive, Gulf Breeze, FL, 32561. The Building is located on an island which is owned and operated by U.S.E.P.A. Gulf Ecology Division.

**SITE HISTORY** - The US EPA's Gulf Ecology Division (GED) located in Gulf Breeze, Florida houses both wet and dry laboratories for aquatic research in the Gulf of Mexico. The Gulf Ecology Division's mission is to conduct ecological effects research to assess sustainability of estuarine and coastal systems, determine factors causing impacts to degraded or declining systems, predict future risks to populations and ecosystems, and support development of criteria to protect ecosystems near the Gulf of Mexico and within the southeastern United States. GED Laboratory staff activities typically involve field trips to collect samples and monitor ecological parameters, computer-based modeling, and laboratory work - both chemical and biological.

Historically, GED conducted some research using radioactive materials in BLDG 45 and continues to conduct research in other laboratories and buildings on-site. GED's research directives no longer require the use of radioactive material in BLDG 45 and will not have the need for radioactive material in the future in that location. Therefore, GED intends to decommission BLDG 45 and have it removed from

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 NRC/RGN MATERIALS-002

the current Nuclear Regulatory (NRC) license, in accordance with NRC Guidance in the support documentation included with this request you will find an Excel file, Rad\_Mat\_used\_at\_GED\_BLDG\_45. This is a synopsis of the radioactive materials used in BLDG 45 until the present. As of this date, no radioactive materials are either stored or in use at the BLDG 45. All radioactive materials are currently used in BLDG 49. There has never been a spill of radioactive material in this building.

The GED is located on a site of approximately 16 acres on Sabine Island. The island is situated in the Santa Rosa Sound off the northern end of Pensacola Beach, the facility was first constructed in the early 1900s. The facility has been substantially modified over the years, with additional buildings and laboratories built during EPA's time on the island.

The GED-Laboratory campus is an EPA-owned and managed facility, with maintenance provided by an on-site operations and maintenance contractor. The primary structure is a main Office Building, which houses scientific, administrative and support staff, laboratories, a water tempering facility, greenhouse and storage space. Other structures include the Support Services Building, containing various workshops, a fitness facility, and wet/analytical laboratories; the marine ecology laboratory and stockroom; multiple office buildings; library; security; the Field Operations Building and boat dock which includes storage for boats; four piers and associated Pump House that provides sea water to the laboratory; and the Hazardous Materials Building containing segregated waste and bulk storage of chemicals.

**SURVEY** - It was decided to complete a multi-approach survey of BLDG 45. For the actual survey, the interior of the building, to be evaluated, was divided into 306 grids approximately 1 meter grid, not accounting for walls. Please see the attached Building45 radioisotope attachment. The exterior dimension of the building is 109' X 79'. Two portable instruments will be used to conduct the interior scans, a Ludlum model 2401-P (s/n 184209) calibrated March 17, 2016, and a Ludlum Model 3 (s/n 42138) GM counter with a model 44-9 pancake probe (s/n PR164550) calibrated on December 22, 2015. We have a Perkin Elmer Tri-carb 2900TR Liquid Scintillation Counter (s/n DG03072384) calibrated on December 10, 2015. This instrument will be used for the wipe samples.

GM scans will be made in each grid scanning at a rate of approximately one grid a minute at approximately 1/2" from the surface.


In addition to the scans, 75-100 cm<sup>2</sup> wipe samples will be taken in randomly chosen grids and counted for two minutes each on a Perkin Elmer Tri-carb 2900TR Liquid Scintillation Counter liquid scintillation counter. Additionally, 100 cm<sup>2</sup> wipe samples will be taken in the exhaust duct, the surface, and the underneath cabinet for each hood. There are eight (8) hoods in the associated area, representing 24-wipe samples. Also, 100 cm<sup>2</sup> wipe samples will be taken for each drain. There are 19 drains, representing 19-100 cm<sup>2</sup> wipe samples. In addition to these, we will wipe an exhaust in RM 1A and a storage cabinet in RM 4. The counter will be standardized daily. Blank samples and unquenched standards will be counted with each set of samples.

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Ms. Betsy Ullrich  
August 9, 2016

After the completion of the initial survey an additional survey of 12 randomly selected areas will be performed. This is approximately 10% of all the areas surveyed. The field data sheet, grid, and accompanying LSC results will be included on the disk so that the process can be seen.

ANALYSIS OF SURVEY RESULTS – Survey results will be packaged in a spreadsheet by room number and reported after the final tabulation.

Please contact me at 850-934-9424 or [raimondo.sandy@epa.gov](mailto:raimondo.sandy@epa.gov) if you have any questions or require further information.

A handwritten signature in black ink, appearing to read "Sandy Raimondo". The signature is fluid and cursive, with the first name "Sandy" written in a larger, more prominent script than the last name "Raimondo".

Sandy Raimondo, Ph.D.  
Acting Division Director  
USEPA/ORD/NHEERL/GED  
1 Sabine Island Drive  
Gulf Breeze, FL 32561

Radioactive Materials Used at Gulf Breeze EPA ORD Lab BLDG 45

Area Used

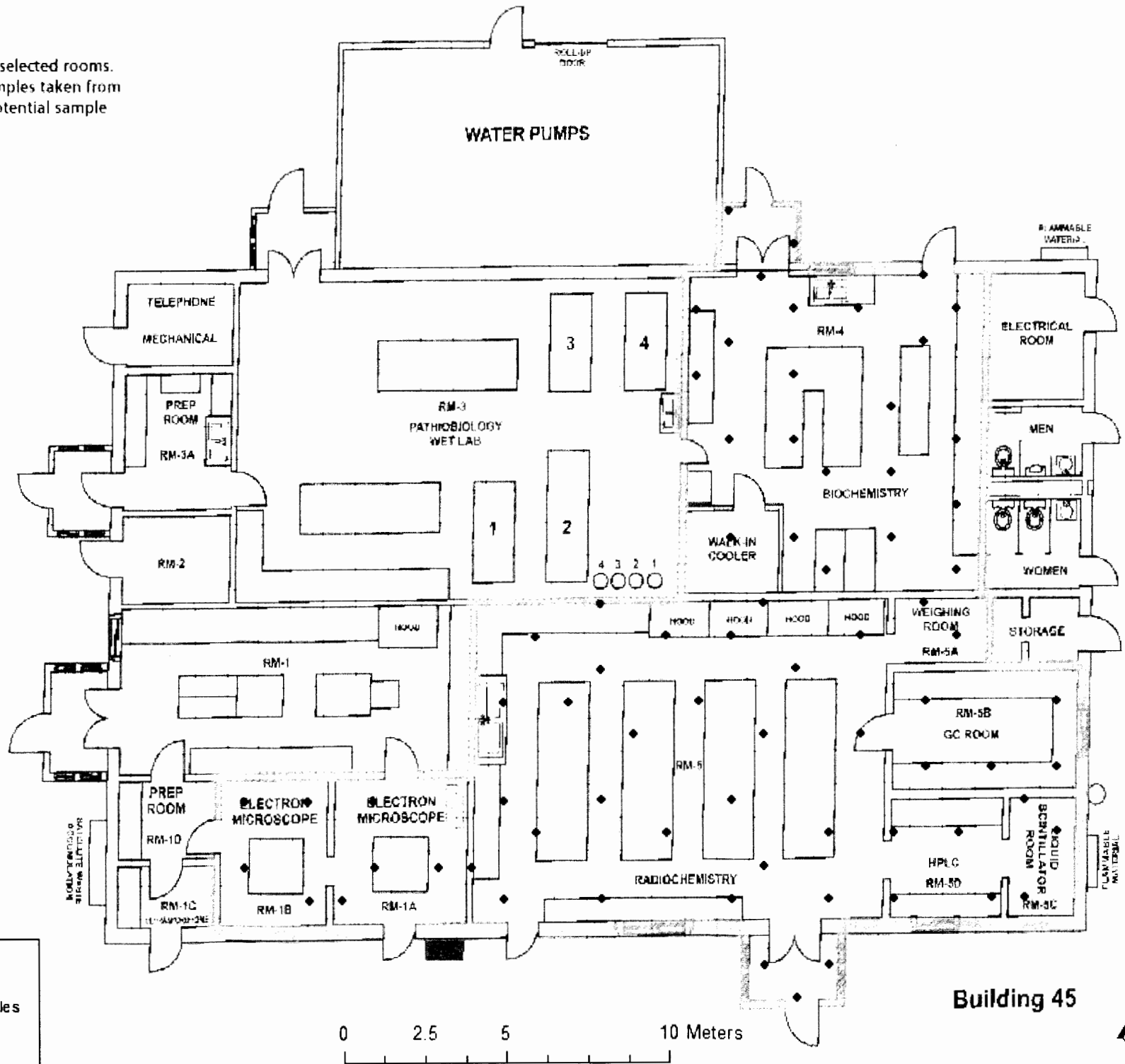
Date

Since 1985

Isotope/Form	RM1A	RM1B	RM4	RM5	RM5A	RM5B	RM5C	RM5D
H-3/liq		X	X	X	X		X	X
C-14/liq		X		X	X		X	X
Ni-63/ECD foil						X	X	X
S-35/liq		X		X	X		X	X
Uranyl Acetate/liq	X	X						

# Building 45 - Sample Site Selection

Radioisotope sample in selected rooms.  
75 random stratified samples taken from  
1 meter grid with 306 potential sample  
sites.



## Legend

- ◆ radioisotope\_samples
- 1 meter grid

0 2.5 5 10 Meters

Building 45





ACKNOWLEDGEMENT - RECEIPT OF CORRESPONDENCE

<b>Name and Address of Applicant and/or Licensee</b>  U. S. Environmental Protection Agency ATTN: Sandy Raimondo, Ph.D., Acting Division Director Gulf Ecology Division 1 Sabine Island Drive Gulf Breeze, FL 32561-5299	<b>Date</b> August 18, 2016
	<b>License Number(s)</b> 09-10672-03
	<b>Mail Control Number(s)</b> 591718
	<b>Licensing and/or Technical Reviewer or Branch</b> Commercial, Industrial, R&D, & Academic Branch h (Branch 2)

This is to acknowledge receipt of your:  Letter and/or  Application Dated: 08/09/2016

The initial processing, which included an administrative review, has been performed.  
 Amendment  Termination  New License  Renewal

There were no administrative omissions identified during our initial review.

This is to acknowledge receipt of your application for renewal of the material(s) license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.

Your application for a new NRC license did not include your taxpayer identification number. Please complete and submit NRC Form 531, Request for Taxpayer Identification Number, located at the following link: <http://www.nrc.gov/reading-rm/doc-collections/forms/nrc531.pdf>  
 Follow the instructions on the form for submission.

The following administrative omissions have been identified:

Your application has been assigned the above listed MAIL CONTROL NUMBER. When calling to inquire about this action, please refer to this control number. Your application has been forwarded to a technical reviewer. Please note that the technical review, which is normally completed within 180 days for a renewal application (90 days for all other requests), may identify additional omissions or require additional information. If you have any questions concerning the processing of your application, our contact information is listed below:

**Region I**  
**U. S. Nuclear Regulatory Commission**  
**Division of Nuclear Materials Safety**  
**2100 Renaissance Boulevard, Suite 100**  
**King of Prussia, PA 19406-2713**  
**(610) 337-5260, (610) 337-5313,**  
**(610) 337-5398, or (610) 337-5239**