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RECEIVED
07/06/2023

University of Hawai'i
Radiation Safety Program
2040 East West Road, Honolulu, HI 96822
808-956-6475 radsafe@hawaii.edu
<https://calendly.com/uh-radiation-safety-program>

July 6, 2023

Roberto J. Torres, M.S.
Senior Health Physicist
Materials Licensing Branch
U.S. Nuclear Regulatory Commission, Region IV
Division of Radiological Safety and Security
1600 East Lamar Boulevard
Arlington, TX 76011-4511

Mail Control Number: 636270
Docket Number : 3007517
License Number : 53-00017-23
Licensee Name : University of Hawaii, Radiation Safety Program

License No.: 53-00017-23
Docket No.: 030-07517

Subject: - Request to Add RAM as Activation Products

Dear Mr. Torres,

The University of Hawai'i (UH) would like to add the following radioisotopes to our license:

- Line 6, Byproduct, source, and/or special nuclear material:
 - Any byproduct material between atomic numbers 2 and 103 with exceptions.
- Line 7, Chemical and physical form:
 - Activation products in equipment/samples.
- Line 8, Maximum possession limits:
 - 2 mCi per radionuclide and 100 mCi total (For activation products in equipment/samples **only**).
- Line 9, Authorized use:
 - To be used in research and development as defined in 10 CFR 30.4; as standards and/or calibration of instruments; and instructional purposes.

We would like to ensure that current details of Line 6A, 7A, 8A, and 9A remain unchanged and to have the above request either listed separately as an additional license line exception, e.g. line 6AG, **or** incorporated as necessary into the current line A, such that it preserves the current details and possession limits as they currently read in Amendment 68 while simultaneously incorporating the addition of the activation products. Our request is to be able to acquire and possess activation products (as specifically outlined above) whenever necessary as explained in the following paragraphs. UH is requesting this amendment to ensure that our license is appropriately modified to ensure that these specifically defined activation products may be properly acquired and possessed.



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A faculty member is having equipment/samples irradiated via a proton accelerator and would like to have this equipment/samples shipped back to UH from the service provider. The activation products are a side effect/byproduct of the irradiation. The company providing the irradiation services is [ProNova Solutions](#) located in Maryville, TN.

Additionally, the UH Physics Department also has a linear accelerator (LINAC) and free electron laser (FEL) that may be restarted in the future. The LINAC is also capable of creating activation products as a side effect of the electron beam. No plans are in place for restart or to ever remove any activation products from the LINAC vault, but I thought it would be prudent to mention this future potential avenue for activation product creation and have our license adjusted accordingly to coincide with the above request.

We are awaiting information on the characterization of the activation products from our faculty member and ProNova to include the specific activation products and their associated activities. They have indicated that they expect activation products with half-lives up to 9 months, but also anticipate the activities to be "quite low." The UH Radiation Safety Program will survey the equipment as soon as it arrives on campus to ensure the exposure rates are within acceptable limits and to remind lab personnel to adhere to the ALARA principle.

Also, UH is currently in the final stages of acquiring an updated software package from OnSite Systems which relies heavily on the orderliness and consistency of line 6 on our NRC license (currently 6A through 6 AF). Is it possible to have our license lines "frozen and additive" for any future amendment requests in order to ensure that we will not need to change the license lines in the software (a heavily time consuming process)? We have seen on other NRC licenses that they have had their line 6 items retained, and have language on line 8 that states "No possession authorized" under maximum possession limits. I have linked an example here: <https://www.nrc.gov/docs/ML2032/ML20328A141.pdf>. Please advise.

Thank you for reviewing our request and answering our questions.

Please contact me if you have any additional questions or need additional information at 919-260-7021 or at msoles@hawaii.edu.

Thank you,

A handwritten signature in black ink, appearing to read 'Mike Soles'.

--Mike Soles, RSO

From: [Michael S Soles](#)
To: [Roberto Torres](#); [R4 Licensing Action Submittals](#)
Cc: [Matthew Carradine](#)
Subject: [External_Sender] Re: Retraction of amendment request
Date: Thursday, July 6, 2023 10:58:40 PM
Attachments: [Activation Products Amendment Request Revision.pdf](#)
[2023 Decommissioning Funding Plan.pdf](#)
[2023 UNIVERSITY OF HAWAII STATEMENT OF INTENT.pdf](#)

Dear Mr. Torres,

Please find attached an updated amendment request for the addition of activation products to the UH license. We have corrected the items from our initial request as instructed in the email below. Also attached is the request to provide an updated Decommissioning Funding Plan and an updated Statement of Intent.

Please contact me if you have any questions or need any clarification about this amendment request.

Thank you,
--Mike Soles

On Thu, Jun 22, 2023 at 10:03 AM Roberto Torres <RobertoJ.Torres@nrc.gov> wrote:

Michael Soles, RSO:

The NRC has received your amendment request letter dated June 15, 2023, and staff is unable to process the request due to insufficient information as identified below. Therefore, please send an email retracting the June 15, 2023 letter and resubmit the amendment request when all the information listed below is available.

1. Line item 6: You requested authorization for “Any *radioactive* material between atomic numbers 2 and 103”. Substitute the term “*radioactive*” with “*byproduct material, source material and/or special nuclear material*” as applicable. These three terms are defined in NRC regulations. See definitions below.

Byproduct material means: (1) Any radioactive material (except special nuclear material) yielded in, or made radioactive by, exposure to the radiation incident to the process of producing or using special nuclear material; (2)(i) Any discrete source of radium-226 that is produced, extracted, or converted after extraction, before, on, or after August 8, 2005, for use for a commercial, medical, or research activity; or (ii) Any material that—(A) Has been

made radioactive by use of a particle accelerator; and (B) Is produced, extracted, or converted after extraction, before, on, or after August 8, 2005, for use for a commercial, medical, or research activity; and (3) Any discrete source of naturally occurring radioactive material, other than source material, that—(i) The Commission, in consultation with the Administrator of the Environmental Protection Agency, the Secretary of Energy, the Secretary of Homeland Security, and the head of any other appropriate Federal agency, determines would pose a threat similar to the threat posed by a discrete source of radium-226 to the public health and safety or the common defense and security; and (ii) Before, on, or after August 8, 2005, is extracted or converted after extraction for use in a commercial, medical, or research activity.

Source Material means: (1) Uranium or thorium, or any combination thereof, in any physical or chemical form or (2) ores which contain by weight one-twentieth of one percent (0.05%) or more of: (i) Uranium, (ii) thorium or (iii) any combination thereof. Source material does not include special nuclear material.

Special nuclear material means: (1) plutonium, uranium 233, uranium enriched in the isotope 233 or in the isotope 235, and any other material which the Commission, pursuant to the provisions of section 51 of the act, determines to be special nuclear material, but does not include source material; or (2) any material artificially enriched by any of the foregoing but does not include source material.

2. Line item 9: For “Authorized Use” you stated: “As required by NRC”. Please state proposed authorized use.
3. You stated that activation products are expected to have half-lives up to 9 months (270 days). Submit a revised site-specific decommissioning funding plan and revised decommissioning financial assurance statement of intent letter that includes the proposed new authorization and proposed new licensed material following NRC guidance described in NUREG-1757, Volume 3, revision 1, which can be found in this link. <https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1757/v3/index.html>

Thank you for your cooperation.

Roberto J. Torres, M.S.

Senior Health Physicist

U.S. Nuclear Regulatory Commission, Region IV

Division of Radiological Safety and Security

1600 East Lamar Boulevard

Arlington, TX 76011-4511

817-200-1189

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Mike Soles, Radiation Safety Officer

University of Hawai'i Environmental Health and Safety Office

2040 East-West Road

Honolulu, HI 96822

808-956-5097 office

919-260-7021 cell

msoles@hawaii.edu

www.hawaii.edu/ehso

<https://calendly.com/uh-radiation-safety-program>

<https://hawaii.risksafety.solutions/>



ACKNOWLEDGEMENT - RECEIPT OF CORRESPONDENCE

Name and Address of Applicant and/or Licensee Michael S. Soles Radiation Safety Officer University of Hawaii Office of the President 2444 Dole Street Honolulu, HI 96822	Date 07/19/2023
	License Number(s) 53-00017-23
	Mail Control Number(s) 636270
	Licensing and/or Technical Reviewer or Branch C. Hill

This is to acknowledge receipt of your: Letter and/or Application Dated: 07/06/2023

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 IV
U. S. Nuclear Regulatory Commission
DNMS/NMSB - B
1600 E. Lamar Boulevard
Arlington, TX 76011-4511
(817) 200-1103 or (817) 200-1140

BETWEEN:

Accounts Receivable/Payable
and
Regional Licensing Branches

[FOR ARPB USE]
INFORMATION FROM WBL

Program Code: 04618
Status Code: Pending Amendment
Fee Category: 3L(1) 3P 3P(1)
Exp. Date: 01/31/2031
Fee Comments: 170.11(A)(4) Fee Exempt University
Decom Fin Assur Reqd: Y

License Fee Worksheet - License Fee Transmittal

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: University of Hawaii, Radiation Safety Program
Received Date: 07/06/2023
Docket Number: 3007517
Mail Control Number: 636270
License Number: 53-00017-23
Action Type: Amendment

2. FEE ATTACHED

Amount: N/A

Check No.: N/A

3. COMMENTS

Signed: Carol L. Hill

Date: 07/19/2023

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered / /)

1. Fee Category and Amount: _____

2. Correct Fee Paid. Application may be processed for:

Amendment: _____

Renewal: _____

License: _____

3. OTHER _____

Signed: _____

Date: _____

Agency: NRC

WBL WORKSHEET

DOCKET NUMBER: 3007517 LICENSE NUMBER: 53-00017-23 STATUS: Pending Amendment

MAIL CONTROL NUMBER: 636270 RECEIPT DATE: 07/06/2023 ACTION TYPE: Amendment

DUE DATE: 10/04/2023 INST. CODE: 17 LICENSE REGION: Region 4

LICENSE TYPE: 30 ENTITY TYPE: S LICENSE GROUP: Academic

ISSUE DATE: ORIGINAL DATE: 07/29/1991 EXPIRATION DATE: 01/31/2031

DECOMMISSIONING CATEGORY: Group 2 LAST ISSUE DATE:

LICENSEE NAME: University of Hawaii, Radiation Safety Program DECOM FIN ASSUR REQD: Y
SUBM: Y

MAILING ADDRESS LINE1: 2444 Dole Street CONT PLAN REQD: N APPRV: N

MAILING ADDRESS LINE 2:

CITY: Honolulu STATE: HI ZIP: 96822

CONTACT PERSON: PREFIX: FIRST NAME: Michael MIDDLE INITIAL: S.

LAST NAME: Soles SUFFIX:

JOB TITLE: Radiation Safety Officer PHONE: 808-956-5097 FAX: 808-956-3205 EMAIL: msoles@hawaii.edu

BILLING ADDRESS LINE 1:

BILLING ADDRESS LINE 2:

CITY: STATE: Hawaii ZIP:

BILLING CONTACT PERSON: FIRST NAME: MIDDLE INITIAL: LAST NAME:

PHONE: EMAIL: FAX:

PRIMARY PGM CODE: 04618 SECONDARY PGM CODE: 03122,04420

INSPECTION REGION: Region 4 PRIORITY: 3

RSO: PREFIX: FIRST NAME: Michael MIDDLE INITIAL: S. LAST NAME Soles

SUFFIX: RSO JOB TITLE: Radiation Safety Officer

RSO PHONE: 808-956-5097 RSO FAX: 808-956-3205 RSO EMAIL: msoles@hawaii.edu

STATES WHERE USE IS AUTHORIZED: 3
0- ALL LISTED STATES
1- SAME AS STATE IN ADDRESS
2- ALL STATES
3- NON-AGREEMENT-STATES

AUTHORIZED STATES (USE ONLY IF ABOVE IS ZERO):