

A business of Merck KGaA, Darmstadt, Germany

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January 12, 2016

Ms. Jennifer Bishop
Materials Licensing Branch
U.S. Nuclear Regulatory Commission, Region III
Lisle, IL 60532-4352

RE: NRC License 24-16607-03, Request to amend license

Ms. Bishop,

I am requesting that the current license (Amendment 9) be changed as indicated below.

1. Licensee

The licensee name should be changed from "Sigma-Aldrich Company" to "Sigma-Aldrich Manufacturing LLC."

This name change was implemented prior to any acquisition activities with Merck KGaA. The name remains Sigma-Aldrich Manufacturing LLC after the acquisition. This was a name change only that did not affect any other aspect of licensed operations, including licensed materials, persons using the license material, location of use of licensed material, or persons responsible for the radiation safety program.

2. Byproduct

Cobalt-57 should be removed from the license.

We have verified that no residual Cobalt-57 activity remains at the lab located at 3500 Dekalb Street, St. Louis, Missouri.

3. CONDITIONS

- a. Licensed material in Subitems A. and B. (Hydrogen-3 and Carbon-14). The location of possession of these items incident to decommissioning should be changed from 3500 Dekalb Street, St. Louis, Missouri to 3300 South Second Street, St. Louis, Missouri.

The laboratories at 3500 Dekalb Street, St. Louis, Missouri, have been inactive since 2004. The laboratory at 3300 South Second Street, St. Louis, Missouri is still active. Although no activity from decommissioning activities currently exists

under this license, any identified activity in the future from decommissioning activities will be will be stored at the South Second Street lab.

Additionally, this change is consistent with the Emergency Amendment Request sent to Mike McCann (Region 3, NRC) on May 17, 2010, to allow a piece of C-14 contaminated material from the decommissioning site to be stored at the 3300 South Second Street lab.

- b. The facilities at 3300 South Second Street should be removed from the license.

Operations at the 3500 Dekalb Street, St. Louis, Missouri facility were shut down in 2004. In 2005, a release survey was completed by R.M. Wester, showing the lab to be releasable for unrestricted use. The Radiation Safety Committee at the time released the lab for unrestricted use. However, the lab remained secured and unused because no alternative use was identified. Also, other use would have required renovation involving removing asbestos-containing flooring.

A site inspection in 2007 by the NRC Region 3 Decommissioning team, led by Mike McCann of the NRC, verified the absence of measurable activity in the lab. Mr. McCann recommended holding off on other uses of the lab until it could be verified that no residual activity remained under a newer floor that covered the original floor that was used in the early years of licensed operations. In 2012, R.M. Wester, working in coordination with an asbestos abatement company, surveyed the newer top tile backing and the original floor top surface. The survey verified that levels were below free release values (at or below MDA levels).

- c. Replace Ernest Mueller with Paul Klueh as one the individuals responsible for supervising licensed activities. Ernest Mueller has left Sigma Aldrich Manufacturing LLC.

Paul Klueh currently serves as the Scientific Operations Lead for Biotechnology, where he contributes to product development, project management, and quality compliance.

Paul joined the company in 2006 as a Biochemist, and previously worked as Laboratory Manager and Research Associate at Washington University in St. Louis. Paul has over 25 years of experience in a variety of subjects, including large and small organic molecule purification and analysis, RNA and DNA extraction, manipulation and characterization, and Life Science product-focused research and development. **Being an approved user in our Radiation Safety Program since 2007, Paul has worked with radioactive isotopes in biological assays as a biochemist, and has managed the receiving, storage, and disposal of radioactive (P-32) material.**

Paul earned his master's degree in Biotechnology from Washington University, and his bachelor's degree in Marine Biology from University of North Carolina at Wilmington.

Please contact me if you have concerns or questions regarding this amendment request.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas K. Spencer". The signature is fluid and cursive, with a long horizontal stroke at the end.

Thomas K Spencer
Radiation Safety Officer
Sigma-Aldrich Manufacturing LLC

Dalzell-Bishop, Jennifer

From: Tom Spencer <thomas.spencer@sial.com>
Sent: Tuesday, January 12, 2016 10:42 AM
To: Dalzell-Bishop, Jennifer
Cc: Cheryl Stipsits
Subject: [External_Sender] Proposed changes to license 24-16607-03
Attachments: License ammendment request 01-12-2015.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Jennifer,

Regarding our conversation yesterday, please find the attached letter that details needed changes to our NRC license referenced above.

Please let me know if you have any questions or concerns regarding this matter.

Regards,
Tom

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