



DEPARTMENT OF HEALTH & HUMAN SERVICES

PUBLIC HEALTH SERVICE  
NATIONAL INSTITUTES OF HEALTH

FOR US POSTAL SERVICE DELIVERY:

Office of Laboratory Animal Welfare  
6700B Rockledge Drive, Suite 2500, MSC 6910  
Bethesda, Maryland 20892-6910  
Home Page: <http://grants.nih.gov/grants/olaw/olaw.htm>

FOR EXPRESS MAIL:

Office of Laboratory Animal Welfare  
6700B Rockledge Drive, Suite 2500  
Bethesda, Maryland 20817  
Telephone: (301) 496-7163  
Facsimile: (301) 402-7065

October 17, 2018

Re: Animal Welfare Assurance  
#A4100-01 (OLAW Case 1Z)

Dr. Paul R. Sanberg  
Vice President for Research and Innovation  
University of South Florida - Tampa  
3702 Spectrum Blvd., [REDACTED]  
Tampa, FL 33612-9444

Dear Dr. Sanberg,

The Office of Laboratory Animal Welfare (OLAW) acknowledges receipt of your October 4, 2018 letter reporting a serious deviation from the provisions of the *Guide for the Care and Use of Laboratory Animals* caused by an adverse weather event at the University of South Florida, following up on an initial telephone report on August 27, 2018. According to the information provided, OLAW understands that a severe rain storm caused a large amount of water to flow into the below grade vivarium and flood the floors. The pumping stations were overwhelmed and shut down and rising storm water mixed with sewage and covered the animal room floor up to one inch. Water quality testing revealed the presence of human fecal bacteria and other agents. Because the rodent racks are elevated on casters, there was no water intrusion into the cages.

The corrective actions consisted of starting the water pumps, extracting the water, and decontaminating the floors, walls, ceilings, surfaces, ventilated cage racks, air handling units, and equipment. Investigators with rodents in this area were notified. Surfaces were monitored for contamination, mice were tested for exposure and have been determined to be healthy, and support equipment was evaluated and determined to be working normally. The emergency mass communication and antenna system were upgraded, a float sensor alarm was installed in the animal housing rooms to detect rising water, cages on lower shelves on the rack will be elevated, and exit routes were established to move racks to upper levels of the vivarium in the event of a flood. The institution will evaluate enlarging the storm water sewer and other engineering solutions to prevent a recurrence.

Based on its assessment of this explanation, OLAW understands that measures were immediately implemented to correct the situation while long term plans are underway to reduce the likelihood of a recurrence. OLAW concurs with the actions taken by the institution to comply with the PHS Policy on Humane Care and Use of Laboratory Animals. Please provide an update on any major engineering improvements in the Annual Report to OLAW. Thank you for keeping OLAW apprised on this matter.

Sincerely,

(b) (6)

Axel Wolff, M.S., D.V.M.  
Deputy Director  
Office of Laboratory Animal Welfare

cc: IACUC Chair



October 4, 2018

Brent Morse, DVM, Acting Director  
Division of Compliance Oversight  
Office of Laboratory Animal Welfare  
National Institutes of Health  
Rockledge 1, Suite 360, MSC 7982  
6705 Rockledge Dr.  
Bethesda, MD 20892-7982

Dear Dr. Morse:

The University of South Florida (USF) in accordance with Assurance D16-00589 and PHS Policy IV.F.3, provides this report of an event originally reported by telephone to the Office of Laboratory Animal Welfare (OLAW) on August 27, 2018.

During the late afternoon of August 15th, an unnamed thunderstorm delivered driving rain to the USF campus, which overwhelmed the capacity of the Holly Drive sanitary sewer that neighbors the Stabile Research Building (SRB). Rain filled Holly Drive, and spilled into and rose within the SRB parking garage and loading dock area.

The SRB vivarium houses 7,300 boxes of mice and is below grade. Approximately 85% of the murine research in the SRB vivarium is federally-sponsored.

At approximately 5:15 PM both electrical pumps within the SRB lift station failed simultaneously, resulting in audible alarms. Within 45 minutes staff had restarted both pumps. When restarted, both pumps functioned normally off the main electrical feed. No breaker switches to the pumps had been tripped. The main electrical feed transfer/relay switch to emergency power had not been activated, and the emergency generator serving both pumps had not started, because the main electrical feed remained live.

The cause of both lift station pumps shutting down simultaneously was determined to be attributable to electrical motor overload resulting from a sudden alteration in the main electrical feed to the pumps (e.g., power surge and/or lightning disturbance). Both the transfer/relay switch and emergency generator serving both pumps have since been evaluated and have been found to function appropriately.

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University of South Florida • 3702 Spectrum Blvd., Suite 165 • Tampa, FL 33612-9445  
(813) 974-5570 • Fax (813) 974-4962 • [www.research.usf.edu](http://www.research.usf.edu)

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Assessments were made by service providers to assure that water intrusion did not impact the function of major fixed equipment (e.g., cage & rack washers, bulk autoclaves, hard ducted biosafety cabinets).

Major fixed equipment continues to function normally.

On August 23rd a review of the water intrusion event was completed by leadership representatives of laboratories, facilities, animal care, and housekeeping. Methods that redirect rising storm water on Holly Drive away from the SRB were proposed. It was acknowledged that improvements to the emergency mass communication process are being implemented to ensure redundant leadership roles are immediately notified of any disaster event affecting the vivarium. It was further acknowledged that a distributed antenna system (DAS) is being installed in the SRB so that staff within the below grade SRB vivarium can always directly communicate by cell phone with others on and off campus regarding disasters and responses underway. It was proposed that a float sensor alarm, similar to that which is already in place on the exterior of the SRB building at the loading dock, be installed in SRB vivarium housing rooms wherein rising water tends to accumulate when released from vivarium floor drains.

The process of elevating lower rows of murine primary enclosures on IVC racks in response to water intrusion was reviewed. The route of egress of all occupied IVC racks from the SRB vivarium to upper levels of the SRB was confirmed.

On September 5th permanent, long-term improvements to prevent recurrence of this water intrusion were discussed by leadership representatives of engineering, facilities, laboratories, and animal care. It was acknowledged that the storm water sewer under Holly Drive was no longer adequately sized due to several new campus building developments now present on either side of this campus street. It was agreed that an engineering assessment was required to determine how to better manage storm water around the SRB (e.g., replacements on storm sewers, an additional SRB storm water vault). This assessment with recommendations for correction is being arranged.

Currently corrections are still underway with civil engineering assessments with recommendations for improvements to prevent recurrence and joint Moffitt/USF implementation of civil engineering improvements around the SRB.

The entirety of this report was provided to the IACUC during two of its agendas, on August 24th and again on September 28th, which found the corrective actions and long-term assessments and plans sufficient to prevent recurrence.

Brent Morse, D.V.M.  
October 4, 2018  
Page 4 of 4

The University of South Florida is committed to protecting the welfare of animals used in research and appreciates the guidance and assistance provided by OLAW in this regard. Should you have any questions regarding this report, please contact Dr. Jay Dean, IACUC Chair, at (b) (6) or via email at [jdean@health.usf.edu](mailto:jdean@health.usf.edu).

Sincerely,

(b) (6)

Paul R. Sanberg, Ph.D., D.Sc.  
Senior Vice President for Research, Innovation  
& Knowledge Enterprise  
Institutional Official

cc: AAALAC International

(b) (6)

Clayton Smith, Senior Director, Facilities

(b) (6)

Christine O'Connell, Senior Director, Laboratories

(b) (6)

Jay Dean, Ph.D., Professor, Chairperson, IACUC

(b) (6)

William Dent, Director, Research Integrity & Compliance

(b) (6)

**Morse, Brent (NIH/OD) [E]**

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**From:** OLAW Division of Compliance Oversight (NIH/OD)  
**Sent:** Friday, October 12, 2018 7:41 AM  
**To:** RSCH IACUC; OLAW Division of Compliance Oversight (NIH/OD)  
**Cc:** RSCH Comparative Medicine  
**Subject:** RE: 2018-10-OLAW report- follow-up to reportable item-thunderstorm flood at SRB- University of South Florida-PHS A4100-01

Thank you for providing this final report. We will send an official response soon.

Best regards, Brent Morse

Brent C. Morse, DVM, DACLAM  
Director  
Division of Compliance Oversight  
Office of Laboratory Animal Welfare  
National Institutes of Health

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**From:** RSCH IACUC [mailto:IACUC@research.usf.edu]  
**Sent:** Thursday, October 11, 2018 5:17 PM  
**To:** OLAW Division of Compliance Oversight (NIH/OD) <olawdco@od.nih.gov>  
**Cc:** RSCH IACUC <IACUC@research.usf.edu>; RSCH Comparative Medicine <compmed@admin.usf.edu>  
**Subject:** 2018-10-OLAW report- follow-up to reportable item-thunderstorm flood at SRB- University of South Florida-PHS A4100-01

Dear Dr. Morse,

The University of South Florida (USF) hereby submits a final report to a notification of an incident, reported originally on August 27, 2018. Attached is an Adobe PDF document of the report.

Let me know if you have any questions or if the transmission of the attached document does not come through.

Sincerely,  
(b) (6)

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## Initial Report of Noncompliance

By: aw

Date: 8/27/18

Time: 9:00

Name of Person reporting: \_\_\_\_\_

(b) (6)

Telephone #: \_\_\_\_\_

(b) (6)

Fax #: \_\_\_\_\_

Email: \_\_\_\_\_

Name of Institution: U of South Florida

Assurance number: A400

Did incident involve PHS funded activity? Yes

Funding component: \_\_\_\_\_

Was funding component contacted (if necessary): \_\_\_\_\_

What happened?

Rain Water got into bldg, 1" standing water

Species involved: Mice

Personnel involved: \_\_\_\_\_

Dates and times: \_\_\_\_\_

Animal deaths: \_\_\_\_\_

Projected plan and schedule for correction/prevention (if known): \_\_\_\_\_

Sanitize bldg, re-direct water, improve alarms

Projected submission to OLAW of final report from Institutional Official: \_\_\_\_\_

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Case # \_\_\_\_\_