



Standard Investigation Report

Incident ID: 134910 (Supervisor Report)

Incident Information

Incident Details, Description and Sequence of Events		
Incident Title: Fire in Biological Sciences in chamber 1313		
Date: Aug 03, 2024	Time: 7:10 AM	Building: BIO - Biological Sciences Building
Description of Incident Location (please do not include personal information such as names, gender pronouns and medical information): Environmental chamber 1313 in the south wing of the Biological Sciences Building		
Accident Type: Fire	Injury Type: No Injuries	
Describe fully what happened before, during, and after the incident (please do not include personal information such as names, gender pronouns and medical information): Before the incident, there were fish tanks in the chamber 1313 which were all plumbed together and working properly. There were four 45 gallon barrels combined: one was a sump (which housed the water pump, fish heater, and filter media) and three were acting as fish tanks. Water is fed into each of the 3 fish holding tanks from the pump which is in the 4th tank. All 3 fish holding tanks drain excess water back into the 4th pump-barrel. Over time, we suspect that the water slowly evaporated to the point where the heater was no longer covered in water and exposed to the air and the filter material and melted.		

Accident Investigation

Task Related Causes
No "Task" Causes
Environment Related Causes
No "Environment" causes
Equipment Related Causes
No "Equipment" causes
Organizational Related Root Causes
No "Organizational" related causes
Human Related Root Causes



Knowledge / skill / experience lacking	
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Root cause

Incorporating the above factors, determine and describe the root cause of the incident or accident:
 The researcher did not check all aspects of their animal holding system regularly to ensure proper operation.

Persons who carried out or participated in the investigation

Employer representative name: Patrick Tamkee	
Job title: Research Technician	
Worker Representative Name: Patricia Schulte	
Job title: Professor	

Corrective Actions

Corrective Action to prevent recurrence of similar incidents (1)

Corrective Action Identified: Replace the melted drum that was acting as the sump for the system with a semi-translucent one that will allow easy monitoring of the water level (as we suspect that one possible cause of the fire was a lowering of the water level in the sump).		
Assigned to (name): Adam Harman	Job title: Grad student	
Final Actions Taken: Replaced with a white barrel which you can see through to gauge water level.		
Date to be Completed: 2024-08-30	Date Completed: 2024-08-30	



Corrective Action to prevent recurrence of similar incidents (2)

Corrective Action Identified:
 Re-design the system so that filter material cannot come into contact with the pump in this drum (as we suspect that one possible cause of the fire was biobeads blocking the pump intake).

Assigned to (name): Adam Harman	Job title: Grad student
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Final Actions Taken:
 Decided to build a mesh enclosure around the pump that will allow ample water flow but prevent beads from coming into contact with the pump.

Date to be Completed: 2024-08-30	Date Completed: 2024-08-30	
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Corrective Action to prevent recurrence of similar incidents (3)

Corrective Action Identified:
 No longer place aquarium heaters in the sump (as we suspect that a short or other fault in an aquarium heater is the likely proximate cause of the fire).

Assigned to (name): Adam Harman	Job title: Grad student
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Final Actions Taken:
 No heater installation for new system.

Date to be Completed: 2024-08-30	Date Completed: 2024-08-30	
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Corrective Action to prevent recurrence of similar incidents (4)

Corrective Action Identified:
 Re-trained all involved in the care of these fish to ensure that they are aware that they must check the water level on the sump.

Assigned to (name): Trish Schulte	Job title: Faculty
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Final Actions Taken:
 Training preformed at lab meeting.

Date to be Completed: 2024-08-30	Date Completed: 2024-08-15	
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Corrective Action to prevent recurrence of similar incidents (5)

Corrective Action Identified:
Once the system is up and running again, we will add a daily check form to ensure that this action is performed.

Assigned to (name): Adam Harman	Job title: Grad student
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Final Actions Taken:
New check list made and in use.

Date to be Completed: 2024-09-20	Date Completed: 2024-11-07	
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JOHSC/LST Additional Action to prevent recurrence of similar incidents (1)

Item:
Discuss possible corrective actions for supervisor and how we can avoid similar issues in the future.

JOHSC/LST Member Assigned (Name): Patrick Tamkee	JOHSC or LST Membership (JOHS Committee or Local Safety Team you are following from): Zoology LST
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Final Actions Taken:
Followed up with supervisor for their corrective actions which were acceptable.

Date to be Completed: 2024-08-06	Date Completed: 2024-08-30	
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