

MAPS Category	Finding	Corrective Action(s) for PIs
Animal Care	Adverse events not reported	Retraining in "Reporting Adverse Events Policy" AALAS course
Animal Care	Animals not observed/cared for daily	Develop a plan for more consistent provision of daily care
Animal Care	Sick animals not reported to VCS	Retraining in YARC Facility Training Part I
Drugs	Controlled drugs not managed appropriately	Refer to EHS guidance (https://ehs.yale.edu/controlled-substances) and contact the Controlled Substance Coordinator at (203) 737-2121

Drugs	Expired controlled anesthetics, analgesics or other drugs	(1) Label and segregate controlled drug in locked inventory (2) contact EHS for disposal, and (3) develop a plan to minimize recurrence
Drugs	Expired drugs used in animals	(1) Discard expired drugs and (2) develop a plan to minimize recurrence
Drugs	Use of non-pharmaceutical grade compounds without approval	(A) Discontinue use of nonpharmaceutical grade compounds until a protocol modification is approved by the IACUC or (B) discard and obtain a USP or FDA-approved formulation of the compound
Drugs and Materials	Expired drugs and materials	(1) Discard expired drugs/materials and (2) develop a plan to minimize recurrence
Enrichment	Enrichment plan for the species is not present or followed	(1) [Re-]institute enrichment plan and (2) complete "Environmental Enrichment in Laboratory Animals" AALAS course/ (3) Submit a protocol modification for IACUC review, if needed.

Enrichment	Single dogs or cats not exercised or provided positive human interaction	(1) [Re-]training in relevant YARC SOP and (2) develop a plan for more consistent provision of exercise and/or positive human interaction
Euthanasia	Death not confirmed after euthanasia	(1) Retraining in "Euthanasia Policy" AALAS course and (2) schedule a procedure monitoring with RSS
Euthanasia	Maintenance of guillotines or scissors used for decapitation not performed or documented	(1) Based on species and frequency of use, develop a plan for sharpening or replacing decapitation equipment and (2) contact OARS for log template
Euthanasia	Physical method on awake animals performed without proof of proficiency from YARC/OARS	(1) Discontinue procedure until retrained by YARC or OARS and (2) retraining on "Euthanasia Policy" AALAS course
Euthanasia	Rodents not euthanized in home cage, when possible	Develop a plan for euthanizing rodents in their home cage (e.g. Euthanex lid) or explain why this practice is not possible

Food and Water	Animals fed potentially contaminated food	(1) Discard food and (2) develop of plan to minimize recurrence
Food and Water	Animals not fed daily (if required for species)	Develop a plan for more consistent provision of daily care
Food and Water	Animals not provided water as required	Develop a plan for more consistent provision of daily care
Food and Water	Expired food	(1) Discard food and (2) develop of plan to minimize recurrence
Food and Water	Feed not stored appropriately (in containers and/or off the ground)	(A) Place feed in a sealable plastic container or (B) develop a plan to otherwise store food to avoid pests

Food and Water	Food in feeder contaminated with urine and/or feces	(1) Discard food and (2) develop of plan to minimize recurrence
Food and Water	Food storage containers not appropriately sanitized	(1) Sanitize container and (2) develop a plan to minimize recurrence
Food and Water	Expired food supplies	(1) Discard food and (2) develop of plan to minimize recurrence
Housing	All animals (or cages) must have appropriate identification	Label cages with at least PI name, protocol number, lab contact, and lab contact phone number
Housing	Animal housing room lighting is not timer-controlled	Develop a plan for providing a consistent light:dark cycle in the housing area

Housing	Animals housed in noisy areas without IACUC/AV approval	(A) Remove animals from area or (B) remove the noise-generating item
Housing	Animals housed in the laboratory without IACUC approval	(1) Discontinue laboratory housing and (2) consult with Rodent Services to move animals into a YARC facility
Housing	Animals housed outside of appropriate temperature and humidity	Discontinue housing until environmental parameters can be maintained in-range
Housing	Animals housed with insufficient bedding or resting surfaces	(A) Provide appropriate bedding or (B) submit a protocol modification for IACUC review, if needed
Housing	Animals housed with insufficient space or enrichment, without IACUC approval	Coordinate with YARC to move animal to appropriate housing

Housing	Aquatic housing does not prevent escape	(1) Coordinate with YARC to move animal to appropriate housing and (2) develop a plan to avoid recurrence
Housing	Inadequately designed or maintained primary enclosures	Coordinate with YARC to move animal to appropriate housing
Housing	Minimal space requirements are not provided	Coordinate with YARC to move animal to appropriate housing
Housing	Use of unsanitizable wooden equipment	(A) Develop a plan for coating the wooden equipment to allow for adequate cleaning (e.g. polyurethane) or (B) replace item when soiled
Husbandry	Bedding not stored in appropriately (sealable container)	Place bedding in a sealable plastic container or develop a plan to otherwise store bedding to avoid pests

Husbandry	Bedding is excessively soiled	(1) Change cage and replace bedding and (2) confirm training in "Mouse/Rat Bedding Conditions-Food/Water Levels and Signs of Illness"
Husbandry	Husbandry care logs not completed	Retraining in applicable husbandry SOP
Husbandry	Nets not disinfected and used across systems (aquatics)	(1) Develop a plan for disinfecting nets and (2) discontinue practice of sharing nets across distinct areas
Husbandry	Poor water quality and/or not tested at prescribed intervals (aquatics)	Develop a plan for more consistent water testing
Other	Other	[free text]

Pests	Pests are present with no/inadequate pest control program	Coordinate with University Office of Facilities to develop a pest control program for the laboratory
Pests	Traps are not checked regularly and/or humane traps not used	(1) Develop a plan to avoid recurrence and (2) if applicable, discontinue use of unapproved traps
Pests	Use of pesticides without coordination with YARC	(1) Discontinue the use of pesticides, (2) Submit a Chemical Waste pick-up via the following link: https://ehs.yale.edu/EHSIntegrator/WasteChemical and (3) coordinate with Facilities to develop a pest control
Infrastructure	Emergency power not available for critical housing needs	(A) Develop a plan for installation of emergency power or (B) use of battery back-up for critical housing needs
Infrastructure	GFCI outlets not installed in "wet" areas	Coordinate with University Office of Facilities (submit request) for the installation of GCFI outlets

Infrastructure	Housing area not under negative pressure	Coordinate with University Office of Facilities to rebalance airflow so that animal dander, etc. are not blown into public use areas
Environment	Out-of-range environmental fluctuations not alarmed	Coordinate with University Office of Facilities to develop a plan to appropriately monitor environmental parameters
Infrastructure	Suspended ceilings not secured	Coordinate with University Office of Facilities to secure ceiling tiles (e.g. clips, etc.)
Environment	Temperature or humidity often fluctuate outside of approved ranges	(1) Coordinate with University Office of Facilities to develop a plan to appropriately control environmental parameters or (2) move animals out of poorly controlled housing area
Infrastructure	Walls and/or ceilings are not moisture resistant, cracked, or have imperfect junctions	Coordinate with University Office of Facilities to correct defects in infrastructure

PPE	Appropriate PPE not available	(1) Discuss appropriate PPE requirements for the type of species/space with YARC/EHS and (2) acquire PPE and make available to staff
PPE	Contaminated PPE worn outside of hazardous area	(1) Discuss appropriate PPE disposal requirements with EHS; (2) associated staff should complete "Personal Protective Equipment for Working in a Laboratory Animal Facility" in AALAS Learning Library
PPE	Scrubs or uniforms worn outside of animal facility	(1) Discuss appropriate PPE requirements with YARC; (2) associated staff should complete "Personal Protective Equipment for Working in a Laboratory Animal Facility" in AALAS Learning Library
Procedures	Procedures not approved by the IACUC	Discontinue procedure until a protocol modification is approved by the IACUC
Procedures	Animals not acclimated to prolonged restraint	Discontinue procedure until retrained by OARS on policy/procedure requirements

Procedures	Food or fluid regulated animal records are not maintained	(1) Retraining on "Regulated Food and/or Fluids in Rodents" policy, if applicable for species and (2) work with OARS to create a compliant template log
Procedures	Food or fluid regulated animals are not weighed weekly	(1) Retraining on "Regulated Food and/or Fluids in Rodents" policy, if applicable for species and (2) develop a plan to minimize recurrence
Procedures	Reporting animal welfare concern sign not posted in housing areas	(1) Obtain reporting animal welfare concern sign from OARS and (2) post in a prominent location in/near housing area
Procurement and Transportation	Animals procured without YARC knowledge	[free text]
Procurement and Transportation	Animals transported by an unapproved route or method	Retraining on "Transportation of Animals Intra-Institutional" policy. If applicable, submit proposed route to OARS for IACUC and YARC review.

Safety	Hazardous area not appropriately identified	Contact EHS or YARC to acquire up to date laboratory or animal facility signage, respectively
Safety	Access to hazardous area not limited to authorized personnel	Ensure that all laboratory doors are locked and secured when unattended.
Safety	Animal room doors not secured	(1) Confirm the use of security features for animal use areas (e.g. locked doors, etc.). (2) If no such features are in place, notify OARS to schedule an assessment of area.
Safety	Biosafety cabinets, transfer stations and/or ventilated cage rack filters not certified at appropriate intervals	(1) Contact Biosafety Cabinet Coordinator at (203) 737-2121 to arrange for certification and (2) Discontinue use of impacted equipment until EHS has recertified.
	Fume hoods not certified at appropriate intervals	(1) Contact EHS at (203) 785-3550 to arrange for certification and (2) Discontinue use of impacted equipment until EHS has recertified

Safety	Emergency procedure sign not posted in laboratory	(1) Obtain emergency sign from OARS and (2) post in a prominent location in the lab
Safety	Eyewash station not checked weekly	Develop a plan for more consistent eyewash checks
Safety	Hazard use areas not under negative pressure	Contact Yale Facilities at (203) 432-6888 to arrange for appropriate repairs. Confirm that EHS has been notified for laboratories.
Safety	Hearing protection not available	Confirm that hearing protection will be worn in high-noise areas
Safety	Inadequate inhalant anesthesia scavenging	Species-specific resolution. (A) Retraining in "Inhalation Anesthesia Systems for Rodents" for rodent users or (B) contact OARS to arrange for RSS retraining.

Safety	Inadequate respiratory protection	(1) Contact EHS and evaluate whether respiratory protection is required; (2) If yes, YARC or EHS to provide training and fit-testing for appropriate respirators.
Safety	NHP incident kit is not readily available	(1) Contact VCS to obtain NHP incident kit and (2) maintain in a well-trafficked area
Safety	Unsecured compressed gas cylinders	Confirm that gas cylinders have been appropriately secured
Sanitation	Animals are excessively wet after hosing cage	Retraining in applicable YARC SOP(s)
Sanitation	Housing and procedure areas not clean/cleaned at appropriate intervals	(A) Retraining in applicable husbandry SOP(s) or (B) complete "Maintaining Animal Procedure Areas" (AALAS)

Sanitation	Rodent enclosures not sanitized at least every two weeks	Retraining in applicable husbandry SOP(s)
Sanitation	Sanitation equipment is excessively worn	Replace worn sanitation equipment
Sanitation	Sanitation equipment is shared between distinct areas	(A) Obtain additional area-specific sanitation equipment or (B) develop a plan for disinfection of equipment when used between areas
Sanitation	Sanitation equipment not stored appropriately	(A) Retraining in applicable husbandry SOP(s) or (B) Maintaining Animal Procedure Areas (AALAS)
Sanitation	Tank not cleaned to permit adequate monitoring (aquatics)	Retraining in applicable YARC SOPs or (B) [re-]training in "Aquatic Animal Husbandry and Management" (AALAS)

Sanitation	Use of air fresheners in housing areas, instead of proper sanitation	(1) Develop a plan for appropriate sanitation and (2) discontinue the use of air fresheners in animal areas
Single Housing	Contact with conspecifics or positive human interaction not provided to singly-housed animals	(1) [Re-]institute enrichment plan and (2) complete "Environmental Enrichment in Laboratory Animals" AALAS course
Single Housing	Single housing without IACUC or VCS approval	(A) Retraining in applicable husbandry SOP(s) or (B) submit a protocol modification with a provide a scientific justification for single housing and no positive interaction to the IACUC for review.
Surgery	Animal not provided thermal support	(1) Retraining in applicable "Thermal Support" policy, (2) begin providing thermal support and (3) if applicable, obtain appropriate thermal support devices
Surgery	Instruments and equipment not sterilized appropriately	Develop a plan for initial sterilization and resterilization, if applicable

Surgery	Monitoring intraoperatively and during recovery not performed and/or not documented	(1) Retraining in species-applicable "Surgery" policy and (2) schedule a surgery procedure monitoring with RSS
Surgery	Non-survival surgery performed without gloves, clean instruments, and a clipped surgical site	(1) Retraining in species-applicable "Surgery" policy and (2) schedule a surgery procedure monitoring with RSS
Surgery	Postoperative monitoring and analgesia administration not performed and/or not documented	(1) Retraining in species-applicable "Surgery" policy and (2A) use the post-operative record template supplied by RSS or (2B) develop a custom record
Surgery	Required prep areas not available for survival surgery	Schedule an assessment of the surgery area with RSS
Surgery	Surgery area not constructed of sanitizable surfaces	Develop a plan to appropriately outfit the surgery area with sanitizable surfaces

Surgery	Surgery area not under positive pressure	Contact OARS to coordinate a meeting with the lab and YARC
Surgery	Surgery areas are cluttered and/or dirty	(1) Confirm that surgery has been cleaned and (2) schedule an assessment of the surgery area with RSS
Surgery	Surgery not performed in a dedicated space, when used for surgery	(1) Develop a plan to conduct surgery segregated space and (2) schedule an assessment of the surgery area with RSS
Surgery	Surgical depth of anesthesia not confirmed prior to surgical incision	(1) Retraining in species-applicable "Surgery" policy and (2A) use the intra-operative record template supplied by RSS or (2B) develop a custom record to assure that depth of anesthesia is confirmed
Surgery	Survival surgery not performed with aseptic technique	(1) Retraining in species-applicable "Surgery" policy, (2) [re-]training in "Aseptic Technique for Rodent Survival Surgery" (AALAS), if applicable, and (3) schedule a surgery procedure monitoring with RSS

Training	Personnel are not appropriately trained to use or handle hazards	Discontinue use of hazard until retrained by EHS, YARC, OARS or other qualified personnel
Training	Personnel caring for or using animals not appropriately trained	Discontinue procedure until retrained by YARC, OARS or other qualified personnel
Training	Staff using aquatics species not trained in assessing water quality (aquatics)	Retraining in applicable husbandry SOP(s)
Waste	Cold-stored waste is not in a dedicated area and/or is not properly labeled as waste	Develop a plan for storing waste appropriately
Waste	Hazardous waste not kept in properly labeled containers	(1) Properly label all biological/radioactive/hazardous waste and (2) Complete/refresh training in applicable EHS policies/SOPs

Waste

Waste not disposed of appropriately

(1) Contact EHS at (203) 432-6545 to arrange for the proper disposal of biological, radioactive and or hazardous waste and (2) Complete/refresh training in applicable EHS policies/SOPs