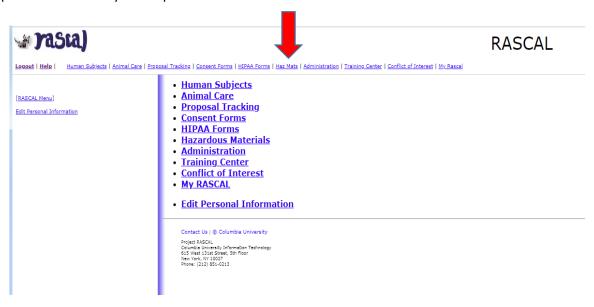
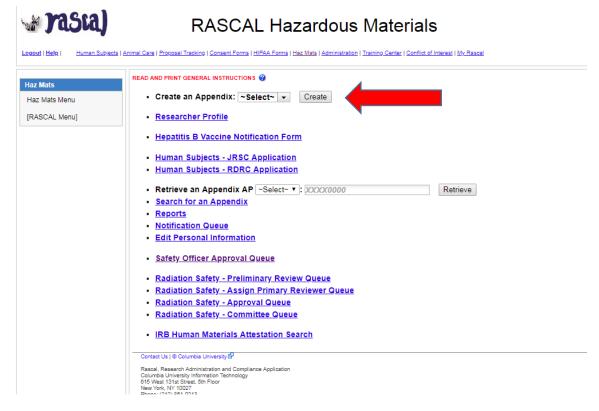
How to Create Appendices for in vitro/ex vivo/invertebrate use and submit to EH&S

- 1. Go to RASCAL: www.rascal.columbia.edu. Login with your UNI and password
- 2. Go to Hazmats. Create an Appendix. Click on Dropdown to choose your Appendix.
- 3. For Submission of each Appendix, see tips and instructions below.
- 4. See Page 23 for information regarding EH&S Correspondence and Review and Approval
- 5. <u>FYI:</u> These Appendices are called "Standalone" because they are directly submitted to the EH&S office and not through another compliance committee e.g., IACUC or IRB.
- 6. <u>IMPORTANT:</u> PI must certify attestation for submission. If you are creating Appendix for your PI, keep track of Appendix Number so you can provide it to them.



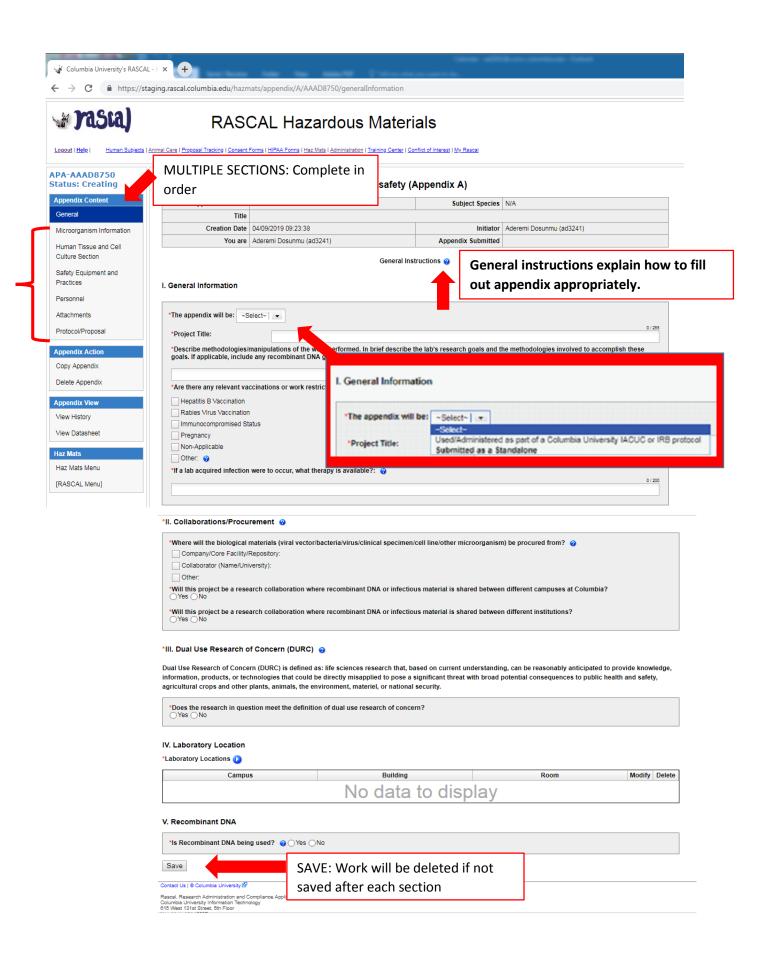


For Appendix A

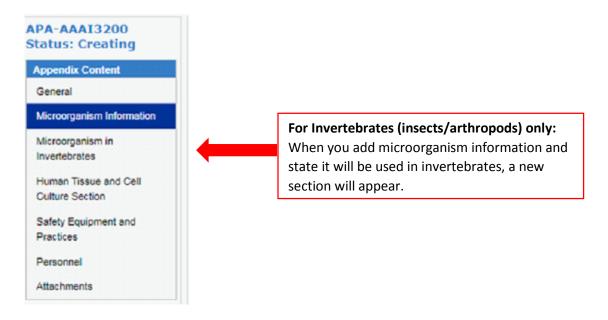
<u>Tips</u>: There are multiple sections to this Appendix. Fill Form in order and always save when section is completed. Each page must be filled in its entirety to save. If cannot fill out Appendix A in one session, fill out remaining section you are working on, and return back to the Appendix later to complete the remaining sections.

There is a 3 year expiration date.

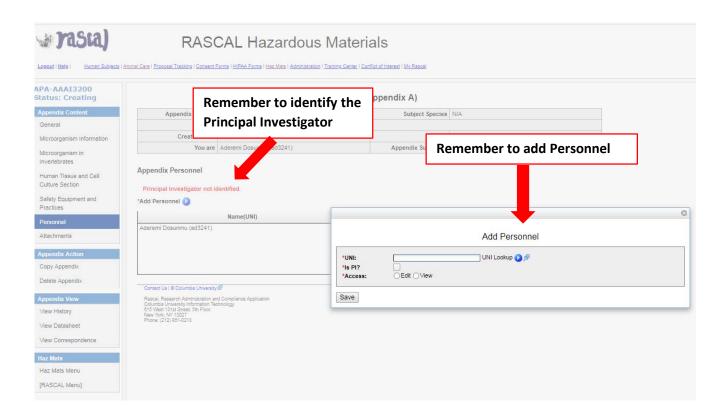
- 1. Fill out Appendix A.
- 2. For the 1st Question, indicate that this is a Standalone Appendix. For the dropdown "*The appendix will be:" Choose "Submitted as Standalone".
- 3. The next question is to determine type of Standalone; for the dropdown "This standalone appendix is for:" Choose "In-vitro/Invertebrates only"
- 4. Fill out First Section "General". Click Save.
- 5. Fill out Microorganism Section next. Click Save.
 - a. For Invertebrates Use Only: When you add microorganisms and state that you will be utilizing invertebrates (insects/arthropods) a new section will appear, called "Microorganisms in Invertebrates" and your inputted microorganisms information was added to this section. Describe the work in invertebrates as relevant. Click Save.
- 6. Fill out "Human Tissue and Cell Culture" Section. Click Save.
- 7. Fill out "Safety Equipment and Practices" Section. Click Save.
- 8. Add all personnel who may handle the hazardous/infectious material to the Appendix. UNI lookup is available. Remember to Identify the Principal Investigator.
 - a. Researchers can now clearly see if there are safety training deficits. Training deficits will delay Appendix approval. If personnel have expired training (Expired) or never had training (Incomplete), this datasheet can be printed out or emailed to the relevant personnel so they can expediently update their required safety trainings.
- 9. If attaching documents, use the Attachments section in the Left hand side.
- 10. On the left hand side, Under Appendix Action, Click Submit Standalone Appendix. For the confirmation, click Ok
- 11. The new Attestation piece will come up. This must be signed by PI. Read carefully and Certify.
- 12. Appendix is now submitted and will be routed to EH&S for review.



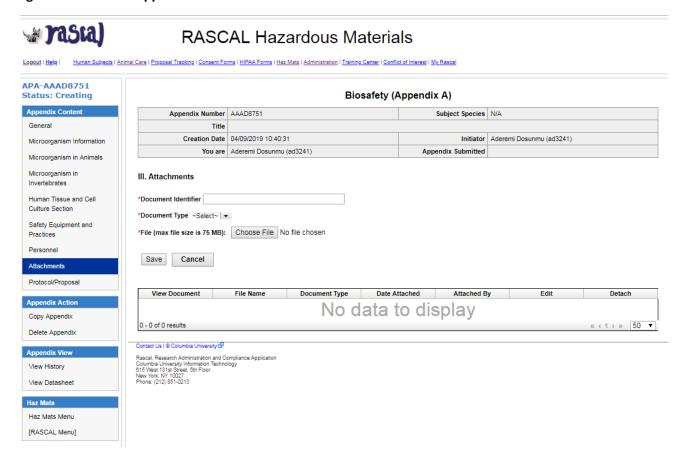
For Invertebrates (insects/arthropods) only:



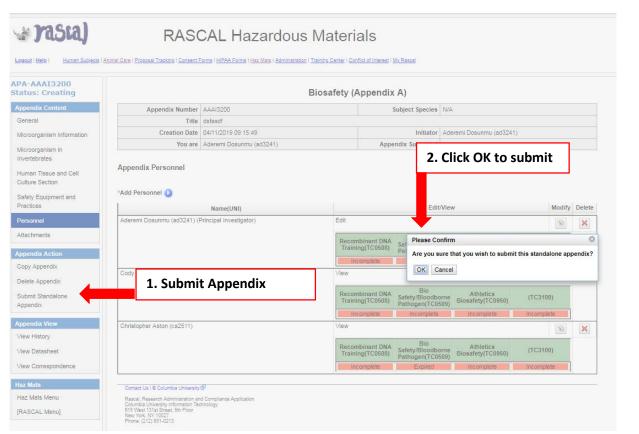
Adding Personnel:

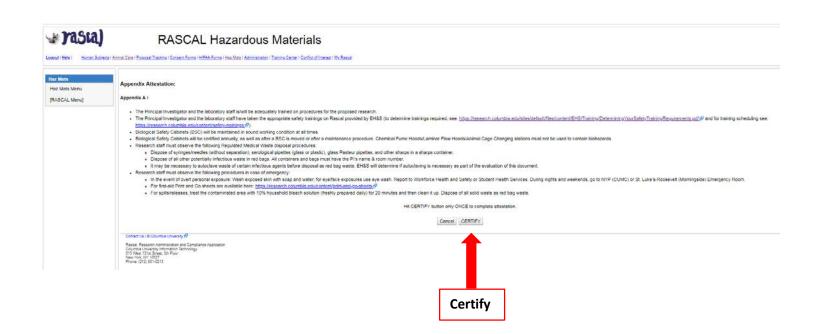


Adding Attachments to Appendix A:



Submission:



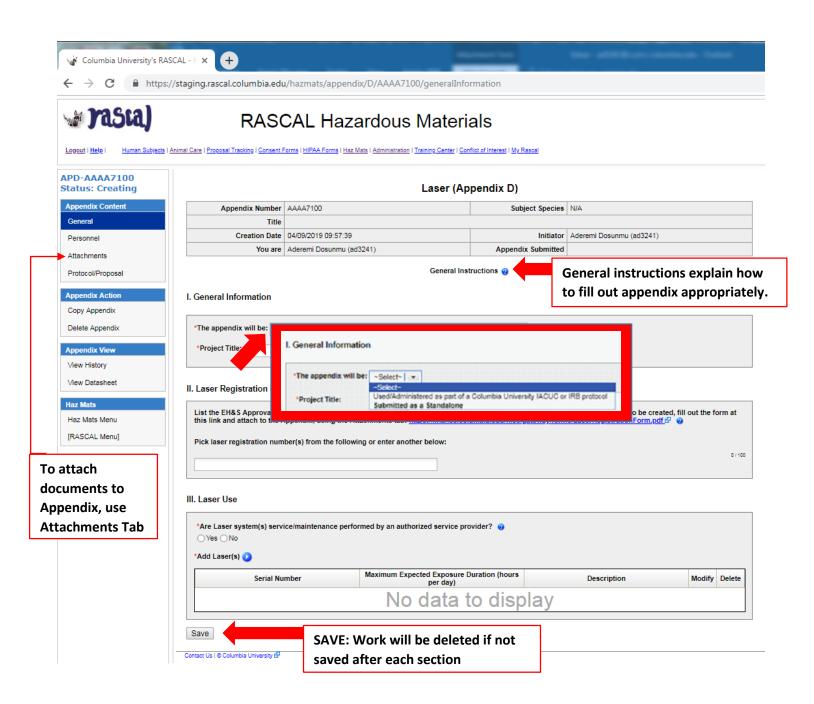


For Appendix D

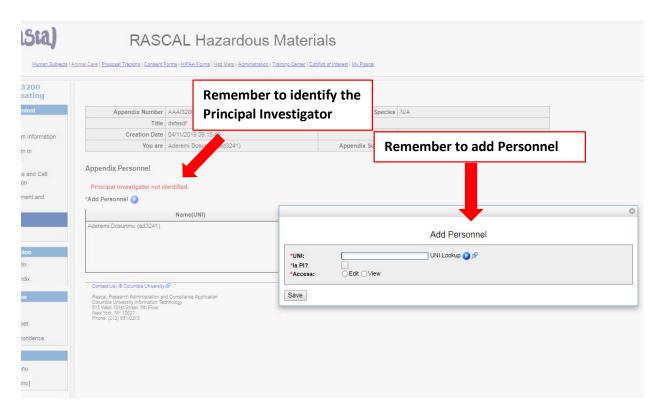
<u>Tips</u>: Laser Registration is a form provided by the Laser Safety Officer. Approval number is found at the bottom of the laser registration form. Laser approval number is provided by EH&S. To inquire what the approval number is, contact <u>lasersafety@columbia.edu</u>.

If Laser registration form is needed, fill out the form in the link and attach in the Attachments Section of the Appendix D. There is a 3 year expiration date.

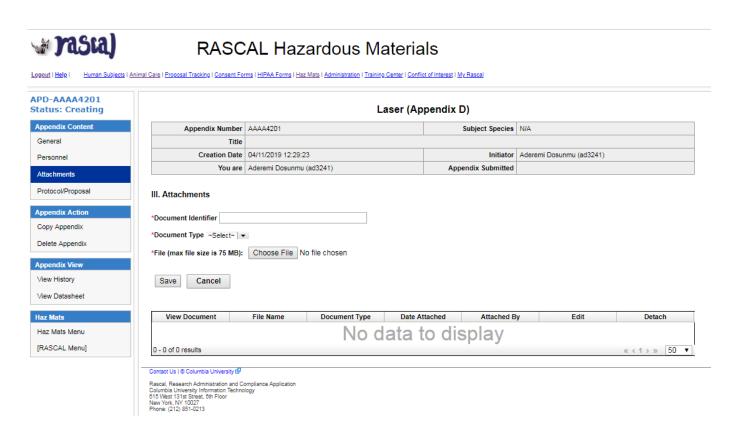
- 1. For the 1st Question, indicate that this is a Standalone Appendix. For the dropdown "*The appendix will be:" Choose "Submitted as Standalone".
- 2. The next question is to determine type of Standalone; for the dropdown "*This standalone appendix is for:" Choose "In-vitro/Invertebrates only"
- 3. Fill out Appendix D. Save.
- 4. Add all personnel who may handle the hazardous/infectious material to the Appendix. UNI lookup is available. Remember to Identify the Principal Investigator.
 - a. Researchers can now clearly see if there are safety training deficits. Training deficits will delay Appendix approval. If personnel have expired training (Expired) or never had training (Incomplete), this datasheet can be printed out or emailed to the relevant personnel so they can expediently update their required safety trainings.
- 5. If attaching documents, use the Attachments section in the Left hand side.
- 6. On the left hand side, Under Appendix Action, Click Submit Standalone Appendix. For the confirmation, click Ok
- 7. The new Attestation piece will come up. This must be signed by PI. Read carefully and Certify.
- 8. Appendix is now submitted and will be routed to EH&S for review.



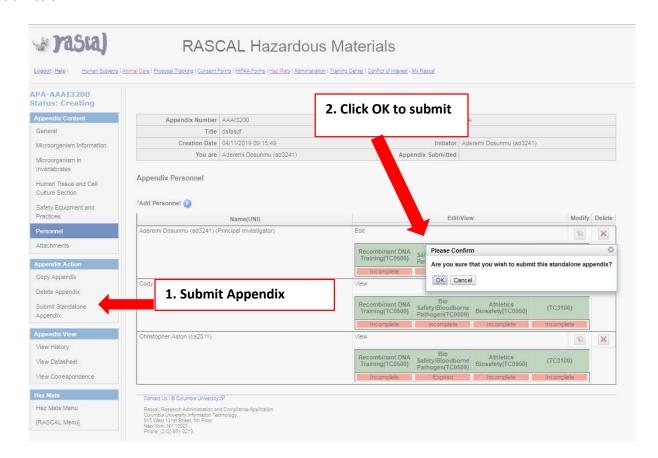
Adding Personnel:

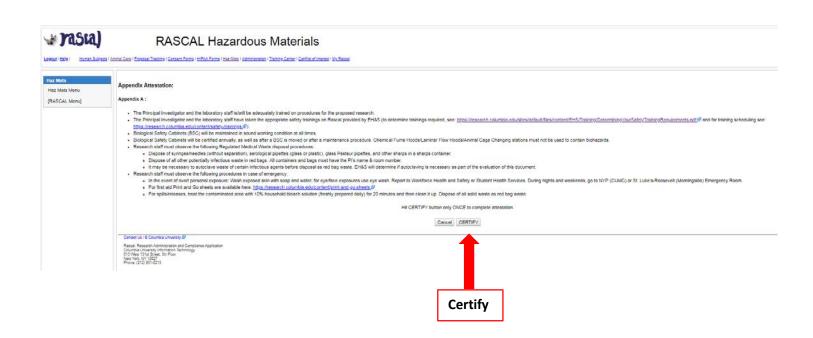


Adding Attachments to Appendix D:



Submission:





For Appendix E

Tips: Do not include isoflurane or formaldehyde; They have been moved to their own Appendix.

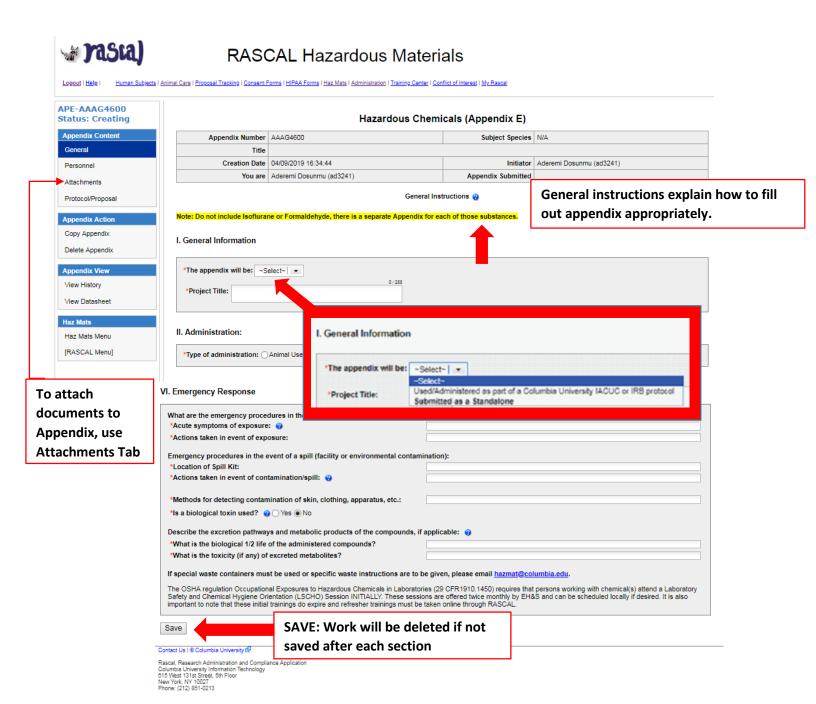
You may use the Attachments Section of the Appendix to provide information on Safety Data Sheets (SDS) or chemical specific SOPs

Under Emergency Response, add information, as applicable for each chemical. For example:

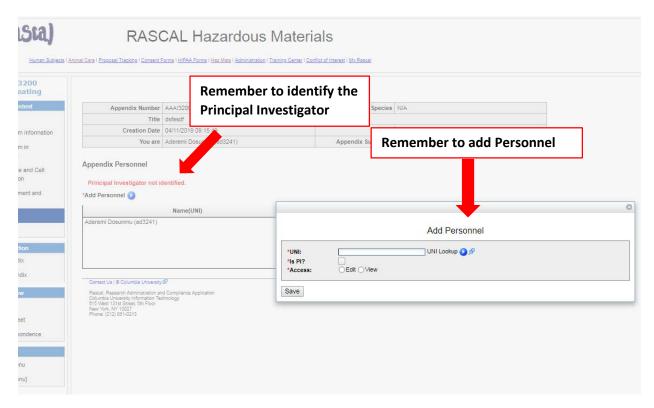
*Acute symptoms of exposure: For Chemical A symptoms are xyz; for Chemical B symptoms are xzy;

There is a 3 year expiration date.

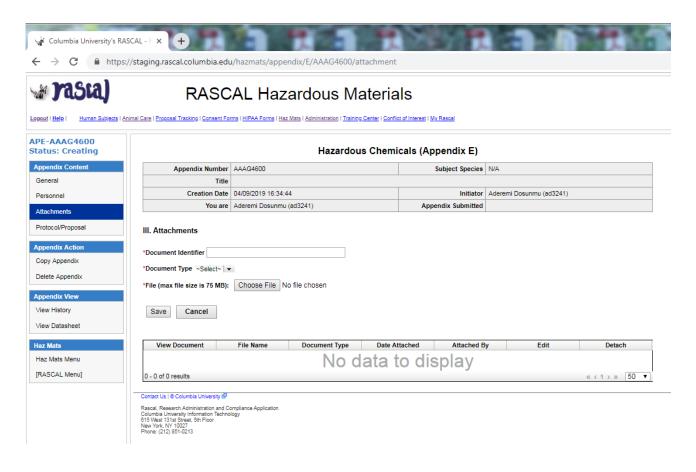
- 1. For the 1st Question, indicate that this is a Standalone Appendix. For the dropdown "*The appendix will be:" Choose "Submitted as Standalone".
- 2. The next question is to determine type of Standalone; for the dropdown "This standalone appendix is for:" Choose "In-vitro/Invertebrates only"
- 3. Fill out Appendix E. Save.
- 4. Add all personnel who may handle the hazardous/infectious material to the Appendix. UNI lookup is available. Remember to Identify the Principal Investigator.
 - a. Researchers can now clearly see if there are safety training deficits. Training deficits will delay Appendix approval. If personnel have expired training (Expired) or never had training (Incomplete), this datasheet can be printed out or emailed to the relevant personnel so they can expediently update their required safety trainings.
- 5. If attaching documents, use the Attachments section in the Left hand side.
- 6. On the left hand side, Under Appendix Action, Click Submit Standalone Appendix. For the confirmation, click Ok
- 7. The new Attestation piece will come up. This must be signed by PI. Read carefully and Certify.
- 8. Appendix is now submitted and will be routed to EH&S for review.



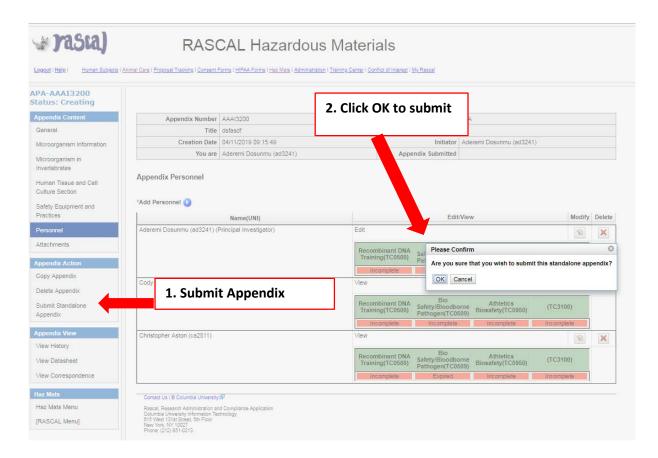
Adding Personnel:

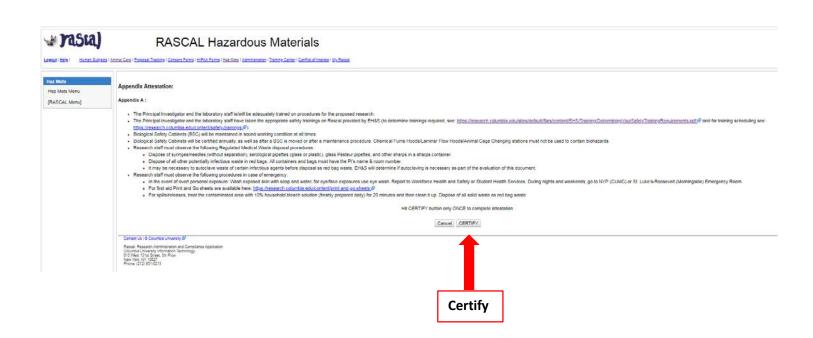


Adding Attachments to Appendix E:



Submission:





For Appendix E1

<u>Tips</u>: This Appendix is for Isoflurane. There is a 3 year expiration date.

- 1. For the 1st Question, indicate that this is a Standalone Appendix. For the dropdown "*The appendix will be:" Choose "Submitted as Standalone".
- 2. The next question is to determine type of Standalone; for the dropdown "This standalone appendix is for:" Choose "In-vitro/Invertebrates only"
- 3. Fill out Appendix E1. Save.
- 4. Add all personnel who may handle the hazardous/infectious material to the Appendix. UNI lookup is available. Remember to Identify the Principal Investigator.
 - a. Researchers can now clearly see if there are safety training deficits. Training deficits will delay Appendix approval. If personnel have expired training (Expired) or never had training (Incomplete), this datasheet can be printed out or emailed to the relevant personnel so they can expediently update their required safety trainings.
- 5. On the left hand side, Under Appendix Action, Click Submit Standalone Appendix. For the confirmation, click Ok
- 6. The new Attestation piece will come up. This must be signed by PI. Read carefully and Certify.
- 7. Appendix is now submitted and will be routed to EH&S for review.



RASCAL Hazardous Materials

Human Subjects | Animal Care | Proposal Tracking | Consent Forms | HIPAA Forms | Haz Mats | Administration | Training Center | Conflict of Interest | My Rascal APE1-AAAA0050 Status: Creating Isoflurane (Appendix E1) Appendix Number AAAA0050 Subject Species N/A General Title Creation Date 04/09/2019 17:10:37 Initiator | Aderemi Dosunmu (ad3241) Personnel You are Aderemi Dosunmu (ad3241) Appendix Submitted Attachments General Instructions @ Protocol/Proposal General instructions explain how to fill Isoflurane is a hazardous chemical with a regulatory permissible exposure limit established out appendix appropriately. submitting this appendix, the Principal Investigator/Initiator confirms awareness of the haza Copy Appendix Delete Appendix I. General Information *The appendix will be: ~Select~ -View History View Datasheet *Project Title: Haz Mats Haz Mats Menu II. Amount and Equipment: I. General Information [RASCAL Menu] *Isoflurane Amount: ~Selec "The appendix will be: ~Select~ | * *I /Min of Oxygen: ~Select~ *Please specify ownership of isoflurane v Used/Administered as part of a Columbia University IACUC or IRB protocol ○ Laboratory Owned ○ Animal Quarters O Project Title: Submitted as a Standalone III. Laboratory Location *Laboratory Locations () Modify Delete No data to display IV. Hazard Control *The laboratory is utilizing at least one of the engineering controls listed while working with isoflurane. (Check all that apply):

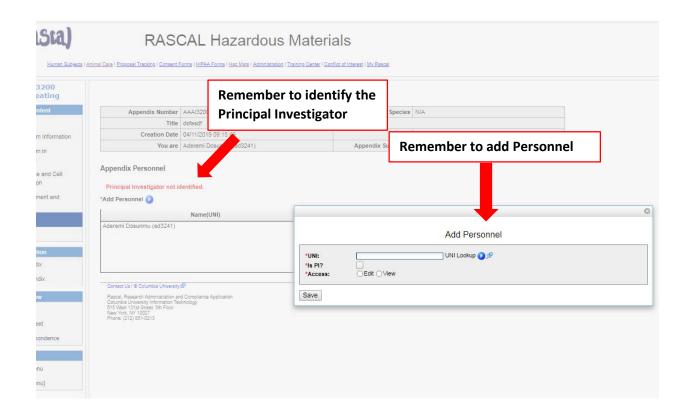
Certified Chemical Fume Hood Ducted Biological Safety Cabinet (Class II, Type B1 or B2) Active Engineering Control (Vacuum Pump w/Charcoal Canister)
Passive Engineering Control (Charcoal Canister) Laboratory works on an open bench top without any engineering controls and has been assessed by Environmental Health and Safety 💡 Other: *The laboratory will be implementing one or all of the below administrative controls during work with isoflurane. (Check all that apply):

Utilization of a digital vaporizer

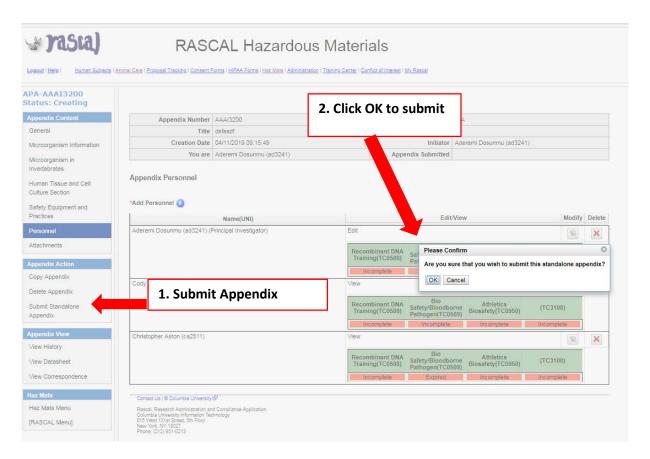
Lab will calibrate their isoflurane vaporizer from an outside vendor Canisters will be weighed and the weights recorded before and after each use Follow time limit guidelines as recommended by EH&S to minimize isoflurane exposure. Lab will limit ordering and on-site storage to amounts used Canisters will be disposed of as hazardous waste *The laboratory will be utilizing the appropriate personal protective equipment including nitrile gloves, lab coat, and safety glasses or goggles:

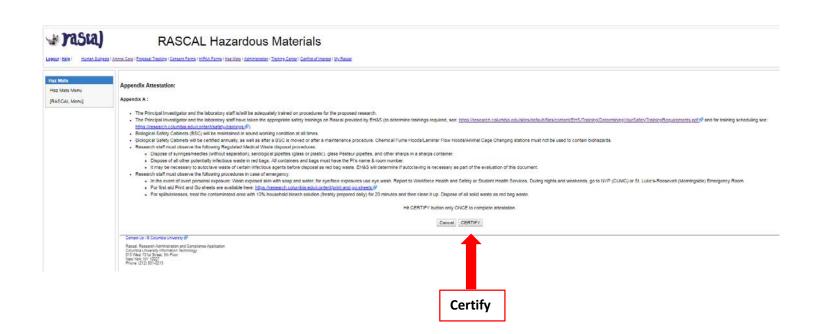
Lab Coat *Disposable Gloves: Nitrile Latex Vinyl Safety Glasses/Goggles
Respirator SAVE: Work will be deleted if not Save saved after each section

Adding Personnel:



Submission:

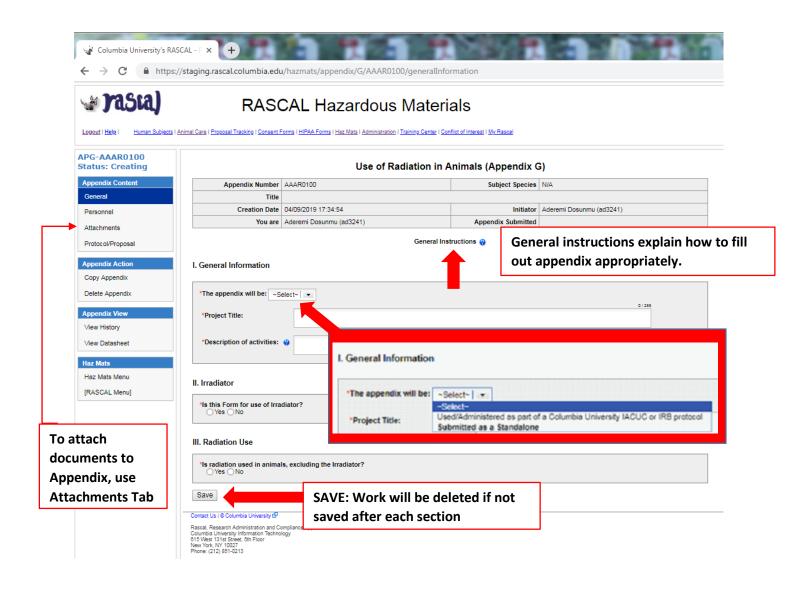




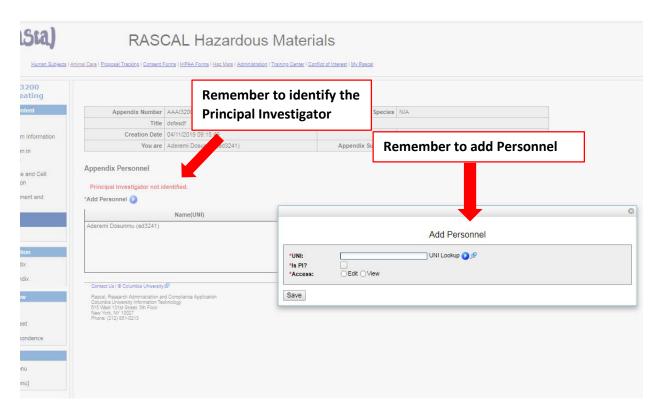
For Appendix G

<u>Tips</u>: In vitro Radiation usage is not typically documented in a hazardous materials appendix. Before submission consult with the Radiation Safety Office. rsocume@columbia.edu.

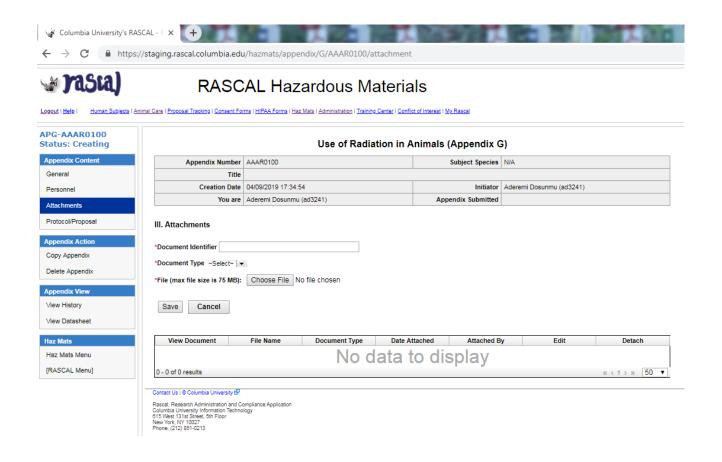
- 1. For the 1st Question, indicate that this is a Standalone Appendix. For the dropdown "*The appendix will be:" Choose "Submitted as Standalone".
- 2. The next question is to determine type of Standalone; for the dropdown "*This standalone appendix is for:" Choose "In-vitro/Invertebrates only"
- 3. Fill out Appendix G. Save.
- 4. Add all personnel who may handle the hazardous/infectious material to the Appendix. UNI lookup is available. Remember to Identify the Principal Investigator.
 - a. Researchers can now clearly see if there are safety training deficits. Training deficits will delay Appendix approval. If personnel have expired training (Expired) or never had training (Incomplete), this datasheet can be printed out or emailed to the relevant personnel so they can expediently update their required safety trainings.
- 5. On the left hand side, Under Appendix Action, Click Submit Standalone Appendix. For the confirmation, click Ok
- 6. The new Attestation piece will come up. This must be signed by PI. Read carefully and Certify.
- 7. Appendix is now submitted and will be routed to EH&S for review.



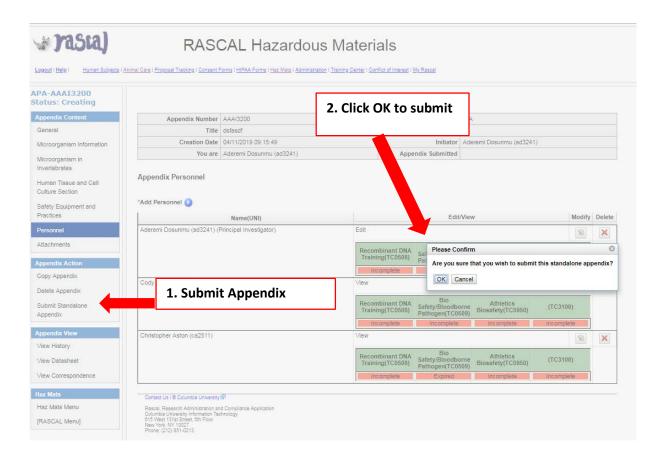
Adding Personnel:

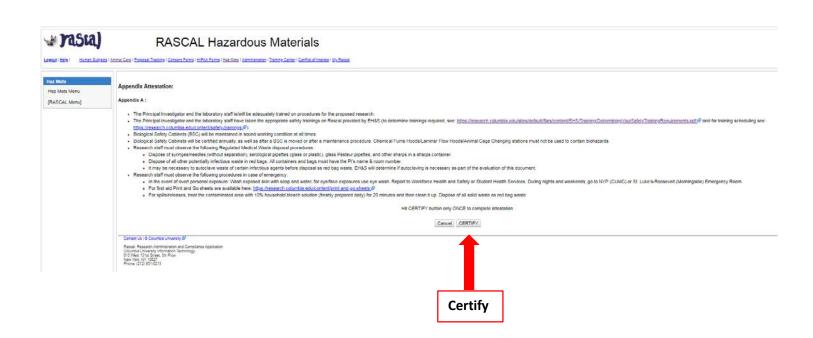


Adding Attachments to Appendix G:



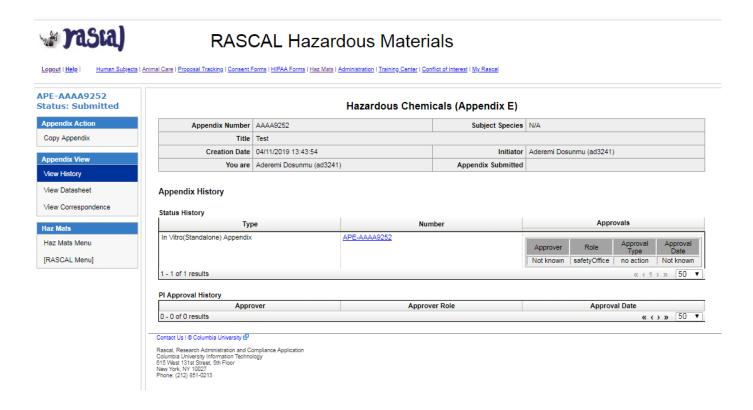
Submission:





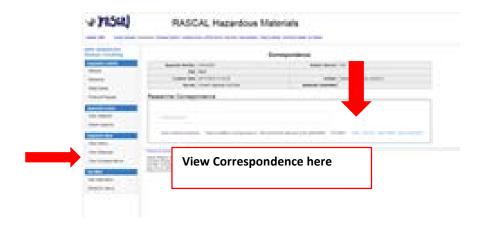
EH&S Review and Correspondence:

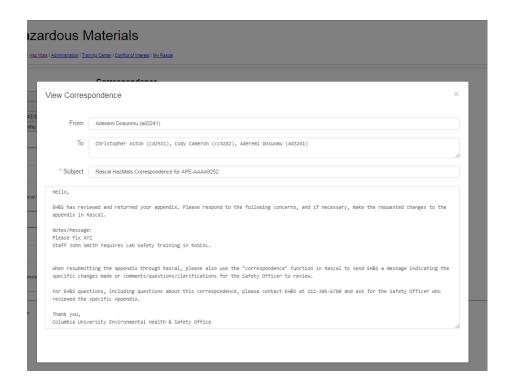
After Submission of your Appendix, this will be your Appendix History page.



EH&S will review. If the Safety Officer has comments, they will communicate this to the PI and the Appendix Initiator in an email sent via RASCAL. Follow the Link in the email to view your correspondence. DO NOT REPLY to email, this will not go to EH&S.

Follow the link which will return you to your Appendix. View your Correspondence.





To Communicate back to EH&S, Click Reply in Right Corner



Edit text field and click Send

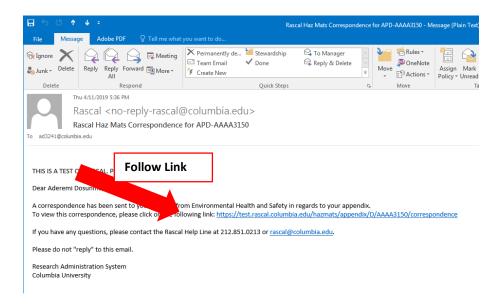


The Appendix was returned back in order to be re-submitted. If there is a training deficiency and it is remedied, RASCAL will automatically update the training table. Follow instructions in the correspondence to edit anything in the document if necessary, then Click "Submit Standalone Appendix". The Attestation will also need to be re-certified by the PI.

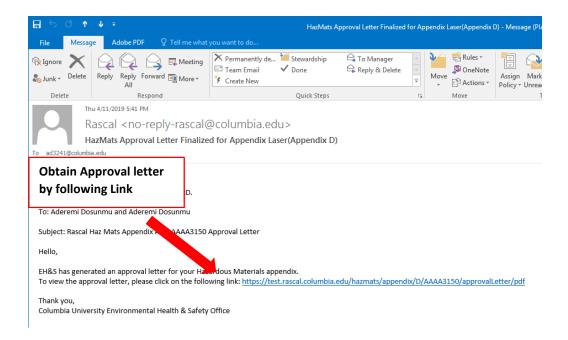
EH&S Approval and Correspondence

When EH&S has approved the Appendix, a notification will also be sent to the PI and the initiator in an email sent via RASCAL. Follow the Link in the email to view your correspondence. DO NOT REPLY to email, this will not go to EH&S.

Follow the link which will return you to your Appendix. View your Correspondence.



If EH&S generated an approval letter, you will also receive an email with a link to the letter.



COLUMBIA UNIVERSITY

IN THE CITY OF NEW YORK

ENVIRONMENTAL HEALTH AND SAFETY

April 11, 2019

TO: Aderemi Dosunmu

FROM: Environmental Health and Safety

RE: APD-AAAA3150 Protocol Title: test 123 Approval Date: 04/11/2019 Expiration Date: 04/09/2021

Thank you for your submission of D for using hazardous materials for research work. Please accept this letter as an indication of approval by Columbia University's Environmental Health and Safety.

As a reminder, the laboratory must comply with Columbia University Policy and all applicable regulations concerning laboratory safety and handling of hazardous materials. This includes, but is not limited to, EPA, OSHA, DEA, New York State and City regulations.

Thank you,

Aderemi Dosunmu Recording Secretary Environmental Health & Safety Researcher Profile Page: Information can be auto-populated to your Appendix.

Instructions: On the HazMats Page click on Researcher Profile.

A new page will open where Lab locations, Assets (Biosafety Cabinets, Fume Hoods, and Lasers), RAM permit Number, and Controlled Substance License can be added. When creating a new Appendix this information will auto-populate to the form.

<u>Note</u>: Researcher is responsible to occasionally check-in and update this information. So if the lab moves or obtains new engineering control certification dates, go into the Research Profile Page to update the information here so information in the Appendix will be accurate.

