

Virginia Tech Environmental Health & Safety Safety Management System User's Guide

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VT EHS welcomes any suggestions that will improve this system for our clients. Please provide feedback to safety@vt.edu and it will be relayed to the development team. If you have an immediate concern, please call 1-3600.

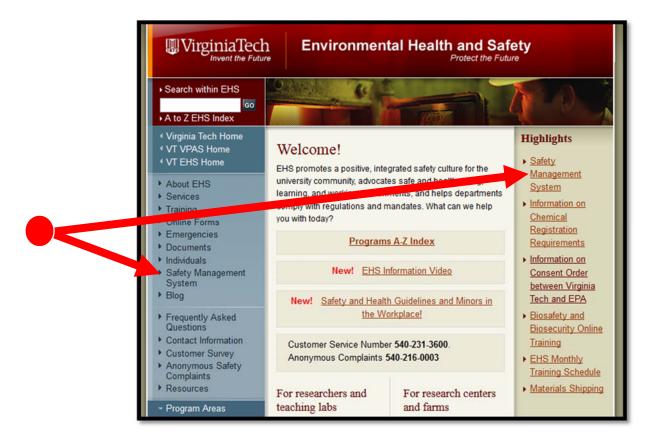


Using the EHS Safety Management System

The EHS Safety Management System (SMS) can be used to manage a number of tasks associated with a campus space or group of people that work together. The Safety Management System allows users to manage:

- Emergency contacts and critical information
- People
- Required training
- Lab or workgroup-specific training
- Chemical registration
- Laser Registrations
- Documents
- Waste pickup and more!

To access the system, use either of the links on the VT EHS home page (http://www.ehss.vt.edu).





Logging into the SMS

The Safety Management System uses Virginia Tech's CAS system to authorize access. Users must have a Virginia Tech PID or Guest ID in order to access EHS systems and training. If you are temporarily associated with Virginia Tech, please obtain a sponsored PID (http://www.ims.vt.edu/forms/sponsored-pid.pdf).

If you have problems logging in from this screen, please contact 4HELP at http://4help.vt.edu or by calling 540-231-4357.





The Welcome Screen

Once you are successfully logged in, the labs or spaces your PID is associated with will be displayed. The headings only display if you have labs falling within the respective criteria.

- Labs or workspaces where you are the Principle Investigator or Responsible Person;
- Labs or workspaces that you created;
- Labs or workspaces that you are associated with; and
- Labs or workspaces you have responsibility for within your Department (i.e., you are assigned the coordinator role by your Department)





Creating a New Lab or Workspace

Any Virginia Tech Faculty or Staff member with a valid PID can create a lab or space.

When creating a lab or space, it's important that you have the following information available:

- Principle Investigator or Responsible Party name and PID
- Lab Department, Building, and Room or Group name
- Location of the CHP / HazCom plan, and last date updated
- Location of the spill kit, if one is in the space
- Name and phone numbers (work, home, & cell) for two emergency contacts

To begin creating a new lab or space, simply click the [Add A New Lab/Workspace] button from the Welcome Screen.

Welcome to the Safety Management System

Formerly Laboratory Management System/Chemical Inventory

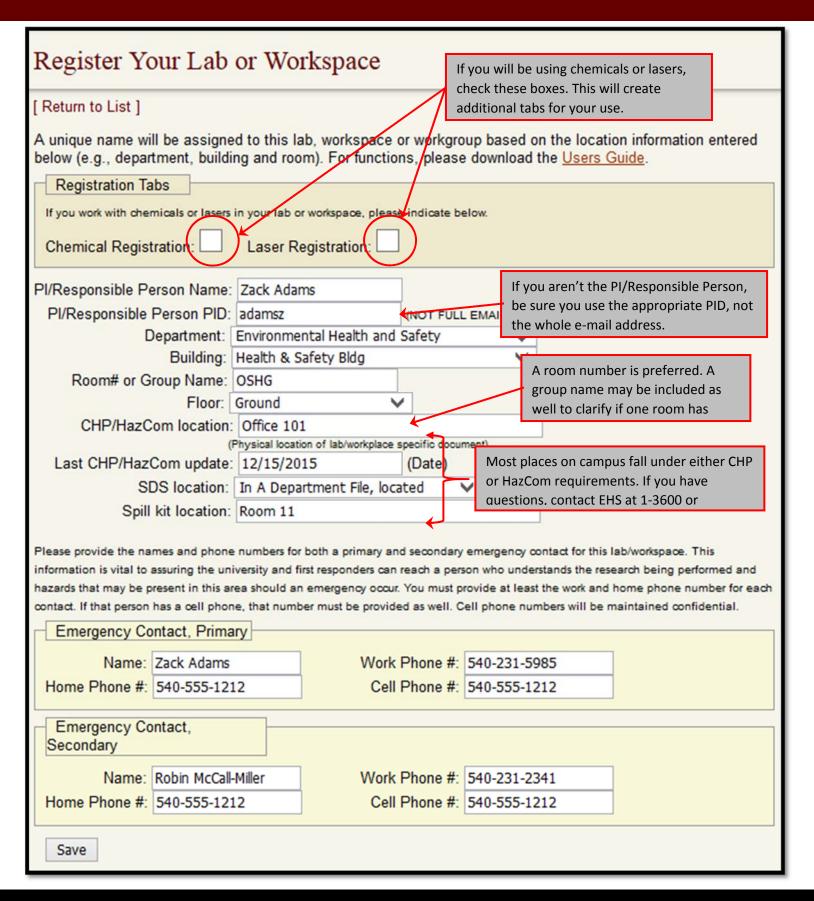
[Logout]

Each room you use, where you store or use chemicals, should be entered as a separate Lab/Workspaces. To do this, click on 'Add A New Lab/Workspace' link below. Once you have entered the data for that room, you will be returned to this page where you can add additional rooms as needed.

Add A New Lab/Workspace

The following screen will appear. Complete the form fields, then hit [Save].



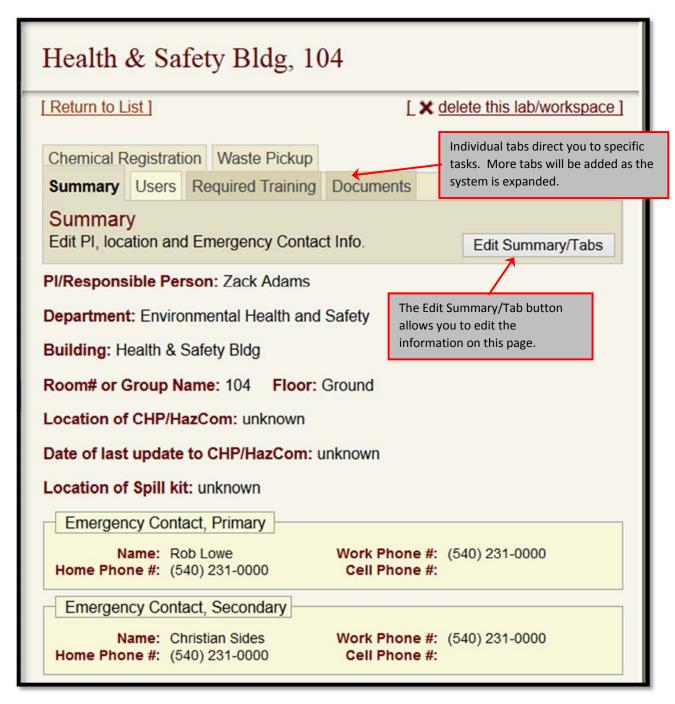






Your Lab / Workspace Summary Page

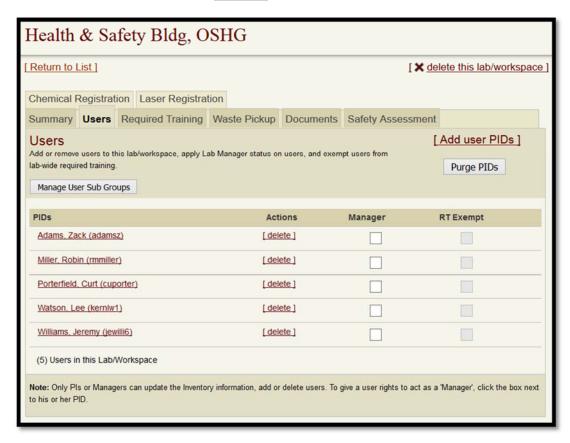
When you click on the [Manage Lab/Workspace] button, or the lab/workspace name from the Welcome Page, you are taken to the Summary Page. The Summary Page is your starting point for most activity in the system.





Managing Lab / Workspace Users

Begin by navigating to the [Users] tab.

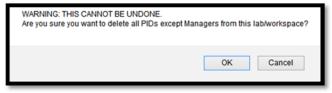


To ADD users to a Lab / Workspace:

- 1. Click on the link [Add user PIDs].
- 2. This opens an input box. Enter only valid PIDs into the box. You can add multiple persons at one by adding PIDs separated by spaces or commas.
- 3. After entering the PIDs, click the button to save and add another, or save and finish. You will receive an error message if a PID cannot be validated.

To remove ALL users from a Lab / Workspace:

- 1. Click on the [Purge PIDs] button.
- 2. You will receive a warning alert:



3. Click [OK] to remove all users EXCEPT Managers, [Cancel] to cancel and return to the screen.





To remove a single User from a Lab / Workspace:

- 1. If necessary, scroll down to the User you wish to delete.
- 2. Click the [delete] text link directly beside the User's name.



3. The user is deleted from the Lab/Workspace. Note that this does not DELETE the user from the EHS system, or affect any of the individual's training records. Deleting a person from a lab simply removes the affiliation with the space.

To assign/unassign an individual as a Manager for the Lab / Workspace:

Managers can perform all tasks associated with the Lab / Workspace including adding and removing people, updating chemical registrations, and managing training and performing related tasks.

- 1. If necessary, scroll down to the User you wish to assign as a Manager.
- 2. To assign a User as a Manager, check the box in the "Manager" column. To unassign, un-check the box. Changes are effective immediately.





What Training is Required for My Users?

Most training requirements are driven by specific tasks, equipment or hazards. For specific guidance: http://www.ehss.vt.edu/training/what_training.php. Inspection or audit reports may contain recommendations on training. This is not an all-inclusive list; EHS provides over 90 training classes on a wide range of topics. Individual managers or coordinators are still responsible for lab-specific or machine-specific training.

- Adult First Aid / CPR training is required for machine shop coordinators, persons
 who work in remote locations (i.e. farms, field work such as forest surveys), on
 energized electrical systems, in confined spaces, etc.
- Users involved in biological research typically have very specific requirements for training. For details, see http://www.ibc.researchcompliance.vt.edu/training.
- Bloodborne pathogens training is mandatory for persons potentially exposed to human blood, tissues or body fluids in the course of work activities.
- Compressed Gas Cylinder Safety is recommended for anyone working in a Lab / Workspace that uses any type of compressed gas.
- Individuals who use aerial lifts (boom trucks, articulating lifts, scissor lifts, or telescoping lifts) or powered industrial trucks (forklifts, low-lift/high-lift walkies, order pickers) must complete both an online class and a skills observation.
 Generally, not everyone in a Lab/Workspace needs these certifications – only those individuals that will be actually using the lift.
- Electrical Qualified Person training is required for any persons exposed to energized electrical systems operating at 50 volts or more to ground. This includes exposures that occur as part of research.
- Persons with an occupational exposure to X-rays must complete appropriate training in X-ray safety.
- Persons working with radioisotopes must complete appropriate training in radioactive materials safety.

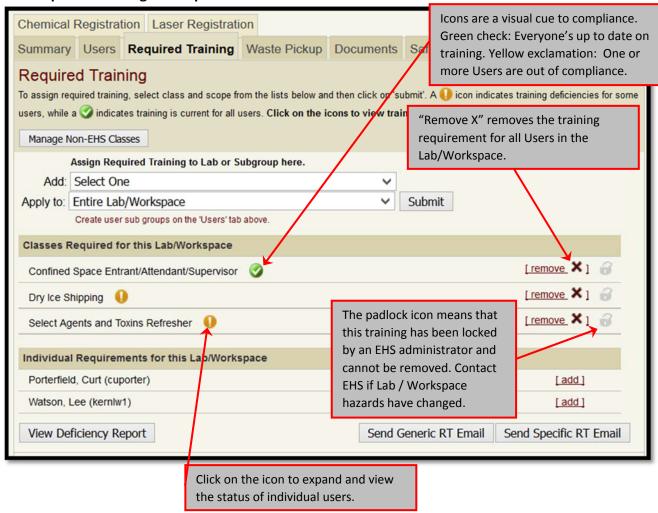


Managing Training for Lab / Workspace Users

Training requirements for Users falls into two basic categories:

- Training that is assigned to ALL persons associated with the Lab / Workspace
- Training requirements that are unique to an individual, or a group of people, based on a specific hazard, piece of machinery/equipment, or task

The Required Training Tab Explained







Assigning Training to All Lab/Workgroup Users

To assign training as REQUIRED for all Users of a Lab / Workspace:

- 1. Click on the [Required Training] tab.
- 2. Select the class from the drop-down list and click [Submit].

To remove training as REQUIRED for all Users of a Lab / Workspace:

- 1. Select the "Remove" link or click the [X] beside the class name.
- 2. You will receive a confirmation box

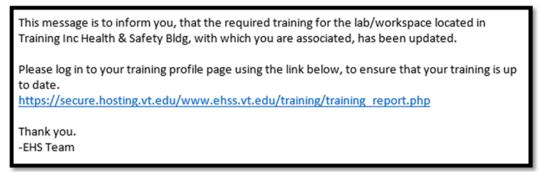


3. Click [OK] or [Cancel].

Note: If the padlock symbol appears to the right of a required training, it is locked by an EHS administrator. Please contact EHS at 1-3600 or <u>safety@vt.edu</u> to discuss.

There are two options for notifying Users that you have changed or updated training requirements for the lab. The "Send Generic RT Email" button will send an email to all users in the lab/workspace, asking them to check their Training Profile page for new requirements. The new "Send Specific RT Email" button will email each user who has unfulfilled requirements and give them the exact list of classes they need:

- 1. Make any changes needed to the required training.
- 2. Click the [Send Generic RT Email] or [Send Specific RT Email] button.
- 3. Users associated with the Lab / Workspace will receive an email similar to the following, specifying the Lab / Workspace and building.





To EXEMPT a Manager from a Lab / Workspace's Required Training.

- 1. Make any changes needed to the required training.
- 2. Return to the [Users] tab.
- 3. If necessary, scroll down to the Manager you wish to exempt.
- 4. To exempt a Manager, check the box in the "RT Exempt" column. To enforce training requirements, un-check the box. Changes are effective immediately.



Creating and Assigning Training to Subgroups

If certain training requirements only apply to a sub group of people within your lab/workspace, you can do that by creating a "Subgroup". From the "Users" tab, click on the "Manage User Sub Groups" button. This page will let you create Sub Groups, add or remove users to them, or delete them.



The Manage Sub Group page is where you will manage the groups themselves. Here, you'll have the ability to add a new group, as well as view and manage your existing Sub Groups, if there are any.





By clicking on the [users] link, you will be shown 2 boxes. The left box contains users not in the sub group, while the right box contains users who are currently in the sub group.





To add users to a sub group, you may move them individually, or by selecting multiple users at once using the ctrl key (PC).

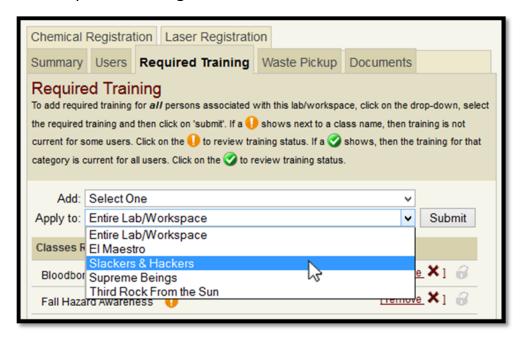


Once selected, simply use the >> button.



When finished, click on [Save] and then [Return to Lab] link.

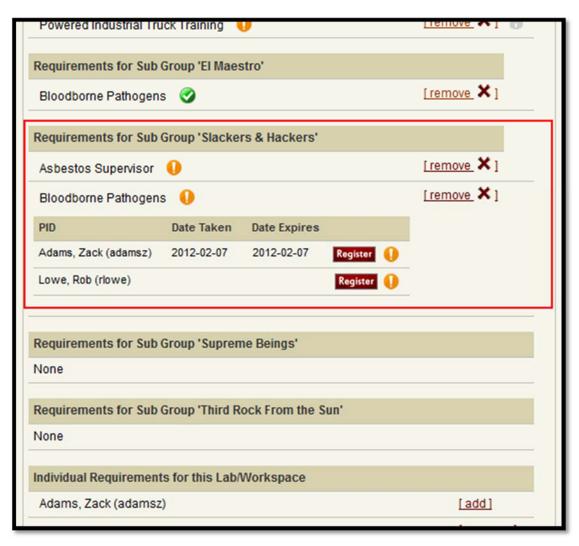
Once you have created a sub group, it will now appear in the "Apply to:" select list under the "Required Training" tab.





This will allow you to assign required training to the entire sub group. If the required training needs to be assigned to the entire lab/workspace, simply leave the default case selected.

Each sub group will have its own reporting area, and as with lab/workspace-wide required training, you will now be able to immediately see the status of the users training within that sub group.





Assigning Training to an Individual

Occasionally, Managers may need to set additional specific training requirements for an individual User. For example, only one User may be required to use an Aerial Lift or Forklift. The Manager probably does not want to assign that training to the entire Lab / Workspace staff.

To ASSIGN training to a specific Lab / Workspace User:

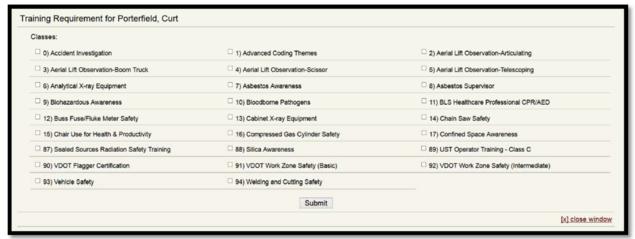
1. Navigate to the [Required Training] tab. At the bottom you will see a section titled "Individual Requirements for this Lab/Workspace" Click on [add] for the individual in question. If an individual already has individual training requirements, the link will say [manage].



A window opens with a complete list of EHS training programs (over 90+ possible trainings).

2. Check the boxes for the individual requirements you wish to assign. Some boxes may already be checked, if the individual already has additional required training. You do NOT need to duplicate training that is already established on the [Required Training] tab.

This does not preclude or replace any lab-specific or machine-specific training to work in your lab or workspace.



3. Click [Submit]



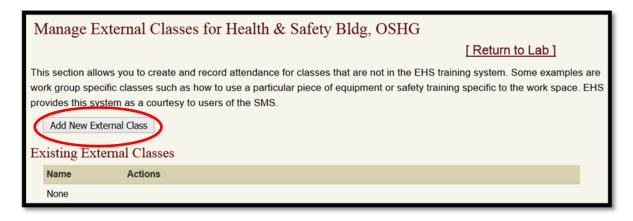
Documenting Lab/Workgroup Specific Training

Many EHS programs establish a requirement that the Principal Investigator, Lab Manager or Supervisor create lab/workgroup specific documentation and perform training on these procedures for all affected employees. Examples include: Part B of the Chemical Hygiene Plan, Energy Control Procedures, and Standard Operating Procedures. The SMS includes a tool that allows you to create a class name for this training, assign persons to whom it applies, and then record the date the training was performed.

Navigate to the [Required Training] tab and click on the [Manage Non-EHS Classes] link.



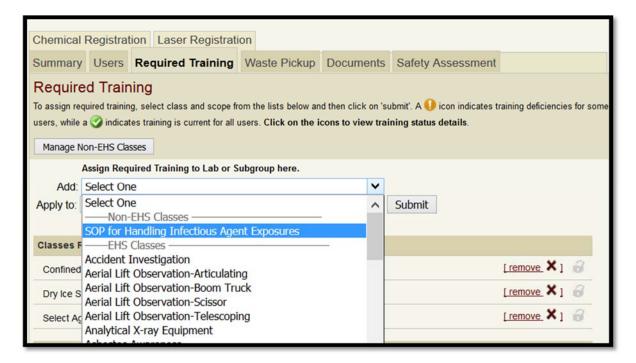
On the next screen, click on [Add External Class]



On the next screen, enter a class name of your choosing. We suggest you make the class name as descriptive as possible (i.e. Drill Press Safety Training Spring Semester 2016). Enter the Class Date (MM-DD-YYYY), select the Expires (in years) duration and then click on [Submit]. The page will refresh and your class will now be listed. Click on [Return to Lab] when you are done adding classes.



The class(es) you created will now be available in the 'Add' drop-down list on the [Required Training] tab and can be added to either the entire lab/workgroup or any subgroup you have created. Just select the class name and then click on 'Apply to' and select with the entire lab/workgroup or any subgroup.



Once you've added the class and have conducted the training, you will need to record attendance. To do this, click on the [Manage Non-EHS Classes] link on the Required Training tab. Pick the class from those you have created and click on [Record Attendance]. Check the box for each person who attended, enter the date the training was performed and then click on 'save'.





Helping Users View / Register for Training

Setting requirements in the SMS affects each User's personal profile in the EHS system. Each User has a Training Profile that shows personal training requirements and supports registration/completion of EHS classes. A User can access their profile from the EHS Home Page. Go to the "Training" link.



From there, select the "View Training Profile" link.



If the User is not logged in through CAS, the CAS dialog will appear. See Page 2 for any issues logging in through CAS.

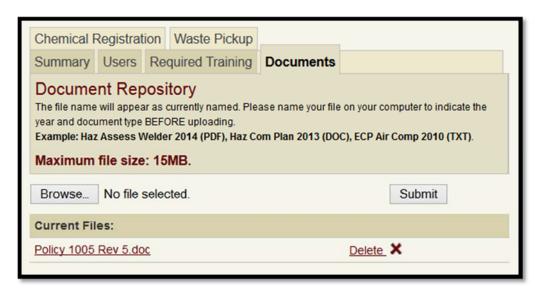






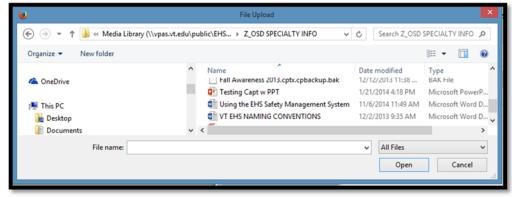
Using the Document Repository

Each Lab / Workspace has an associated document repository. This can be used to share documents between Managers and EHS. The maximum file size is 15 MB, and once a document is uploaded it cannot be edited, renamed etc.



To UPLOAD a document to your Lab / Workspace:

- 1. Navigate to the [Documents] tab.
- 2. Select [Browse]. The File Upload dialog box will open. Note: The dialog box may look slightly different than shown, depending on your Internet browser.



- 3. Select the file you wish to upload.
- 4. The file name will appear beside the [Browse] button. Click [Submit].



5. The file will now appear in the Document Repository.



To DELETE a document from your Lab / Workspace:

- 1. Navigate to the [Documents] tab.
- 2. Select the "Delete" link or [X] to the right of the file name.



Note: Deletion from a Lab / Workspace is permanent and cannot be undone.

3. A dialog box appears.



4. Select [OK] to delete the file, or [Cancel] to return to the Document Repository.

To OPEN a document from your Lab / Workspace:

- 1. Navigate to the [Documents] tab.
- 2. Click on the file name. Depending on file type, you may be prompted to Download the file, or the file may open in the Browser directly.





Registering Chemicals & Hazardous Substances

Potentially hazardous materials and conditions that may result in immediate or serious harm must be registered within the Safety Management System.

- This system will assist in determining that the quantity of chemicals in a building does not exceed <u>allowable limits imposed by the Fire Code</u> for each hazard class of chemical (e.g., corrosive, flammable, toxic, etc.).
- Emergency responders will have access to this information when responding to emergencies.
- We need to know the maximum <u>quantities of certain chemicals located in each room</u>. Each room = a lab; you do not have to separately enter rooms within rooms. Ask yourself: What is the maximum amount of a particular chemical you think you'll have, on any one day, during the course of the year?
- This is *not* a complete inventory of all your chemicals. We do not expect you
 to provide exact amounts for each chemical listed in this system, but rather
 the expected maximum quantities or volumes on any one day throughout the
 year.
- If you have chemicals not listed in one of the pre-loaded categories, you can provide an aggregate quantity and appropriate unit of measure for any other materials in a hazard group in the room. This will go in the "Other" field at the bottom of each hazard class section.

Questions related to the Chemical Registration process

- Do I need to add all chemicals I may have currently that are not specifically listed in each category on the form?
 - EHS is asking participants to register the maximum amount of the specific chemicals listed for each category or grouping. Any other chemicals /materials in your lab space, that are part of a particular category but not listed in the pre-loaded form, should be reported as one aggregate quantity / amount in the space for "If you have any other (category) not listed above, please enter the approximate aggregate quantity for those materials here and provide the appropriate unit of measure for those materials (e.g., liters, pounds, etc.)".
 - If the quantity / volume of a particular chemical varies frequently through the course of the year, how should I report my quantity? The object is to estimate the maximum amount of materials at any time





throughout the course of a year. Please report the maximum amount you expect to have in the space at any time during the year.

- Should rooms within a room be registered separately?
 No
- I have instruments that are connected to solvent reservoirs when in operation.
 How do I report these?

Include these volumes in your total for the lab space.

• How will participation be monitored?

EHS will be working with Department Heads, Directors, and other University Administrators to encourage and verify responses.

Preparing to Register Your Chemicals

Go to the [Chemical Registration] tab. If this is your first time creating the Chemical Registration, you will probably find it helpful to download the Excel spreadsheet and use it to gather information on your Lab / Workspace. Once you've gathered the information, you'll want to have it handy as you complete the registration process.



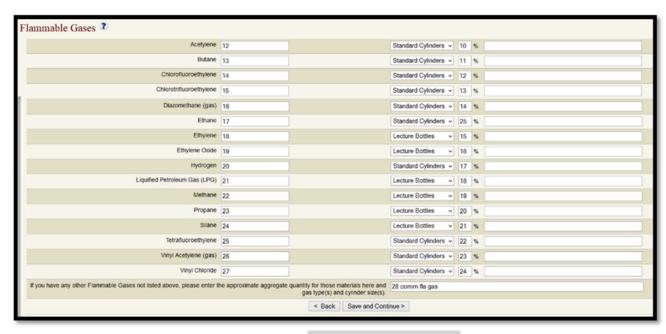


Spreadsheet Example:

have a specific chemical, leave that field blank.										
Chemical	Total Amount in Storage and Use	Units	Primary Hazard	Secondary Hazard						
2-Cyclohexen-1-ol			Peroxide Formers							
2-Hexanol			Peroxide Formers							
2-Pentanol			Peroxide Formers							
3-Methyl-1-butanol			Peroxide Formers							
4-Heptanol			Peroxide Formers	1						
4-Penten-1-ol			Peroxide Formers							
Acetal			Peroxide Formers	Flammable Liquid (Class IA, IB, IC)						
Acetalaldehyde			Peroxide Formers	Flammable Liquid (Class IA, IB, IC)						
Acetic Acid			Combustible Liquid (Class II, IIIA, IIIB)	Corrosives						
Acetic acid anyhride			Combustible Liquid (Class II, IIIA, IIIB)	Water Reactive						
Acetone			Flammable Liquid (Class IA, IB, IC)							
Acetone peroxide			Organic Peroxides							
Acetonitrile			Flammable Liquid (Class IA, IB, IC)							
Acetyl chloride			Flammable Liquid (Class IA, IB, IC)	Water Reactive						
Acetylene			Flammable Gas							

Completing your Annual Chemical Registration

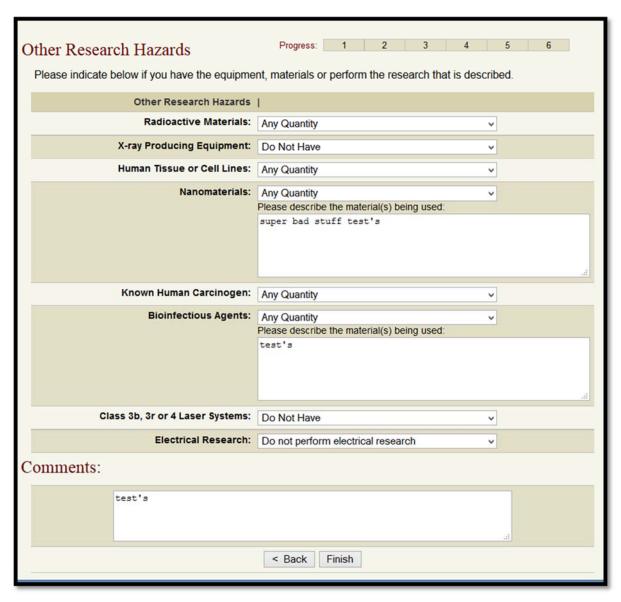
- 1. Navigate to the [Chemical Registration] tab and click [Annual Chemical Registration].
- 2. Using the information from your spreadsheet, enter the appropriate information in the form. Use the "Comment" fields to add information as necessary. There are five screens with categories that match those found on the Excel spreadsheet.



3. At the bottom of each screen, click the [Save and Continue] button to move to the next section.



4. The 6th Screen allows for the input of additional research hazards present in the Lab / Workspace.



5. Click the [Finish] button. You will get a confirmation message.

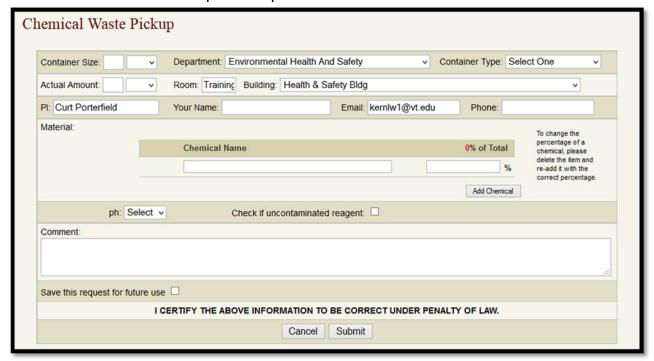




Requesting a Waste Pickup

This tab should only be used for chemical waste ONLY. Please do NOT use this form for Radiological, Biological, or general waste (trash).

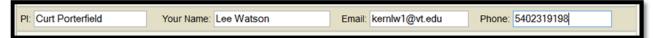
- 1. Navigate to the [Waste Pickup] tab and click [Request Waste Pickup].
- 2. The Chemical Waste Pickup form opens.



3. Enter the Container information and the actual amount of chemical to be picked up. Common container sizes and types can be selected using the drop-down menus. EHS needs to know the approximate amount of waste in the container.

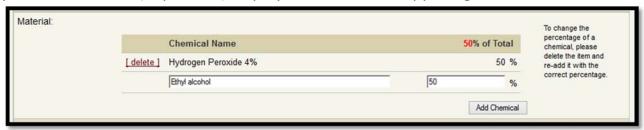


4. Your e-mail address and the Principal Investigator's name should automatically be populated on the form. Type your name and a contact phone number in the appropriate spaces.

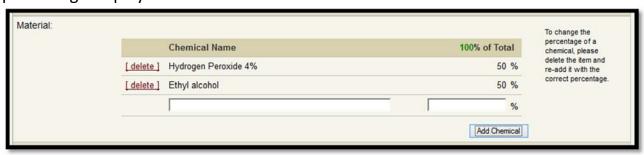




5. Enter the individual components of the waste in the container. Identify the chemical name of the material, and as a percentage of the total amount identified in Step 3. Click [Add Chemical] to update each line and the total percent. The sum (in percent) displays in RED on the upper right of the section.



The total of materials MUST equal 100%. When the total is correct, the percentage displays in GREEN.



6. Enter the pH of the waste material. If the material is an uncontaminated reagent, check the appropriate box.



7. Enter any comments that the Hazardous Materials Management team may need in order to process your waste pickup.

	Comment:																	
	Available 1-8759.	for	pickup	between	8 AM-	12PM	MWF.	Alternate	pickup	time	may 1	oe se	t by	contacting	Curt	Porterfield	at	
Н																		

8. You have the option to save the request as a template for future use. If you are satisfied with the information, click [Submit]. In submitting the request, you are certifying the type and amount of waste in accordance with all regulations.



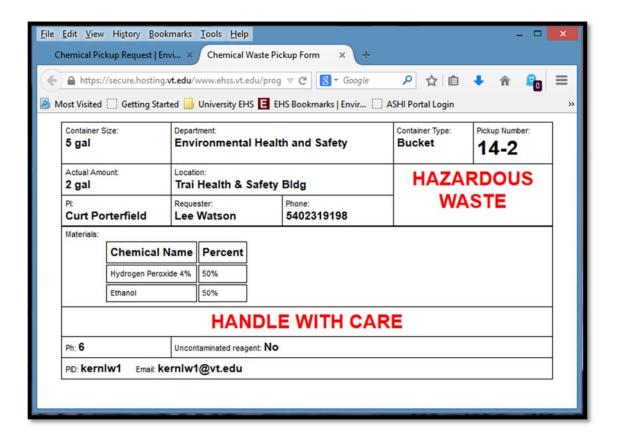




9. Once the ticket is submitted, you will see a confirmation screen. You must print and attach the pickup ticket to the container.

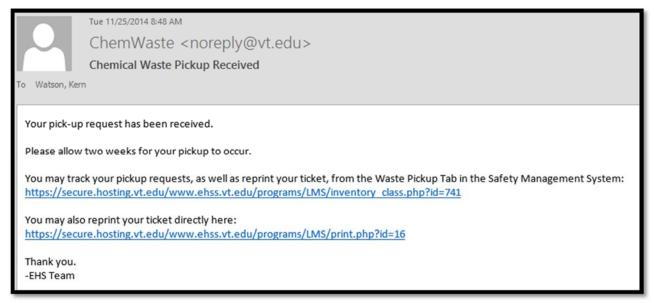


When you click the [Print] link, a new browser window will open. Use your browser's print function to print the ticket. It does not have to be printed in color.





10. You will receive an e-mail confirmation that the waste pick-up request was successful.



11. After a ticket is submitted, you will be able to track the process on the Waste Pickup tab. The ticket will initially appear with a submitted date. You have the ability to reprint the waste pickup ticket.



The ticket status will be updated by EHS.







To Load a Saved Waste Pickup Request

- 1. Navigate to the [Waste Pickup] tab and click [Request Waste Pickup].
- 2. The Chemical Waste Pickup form opens. You will see a new section at the top of the form. Select the saved request from the drop-down list, then click [Go]. The form will now be populated with the information from the saved request.

