

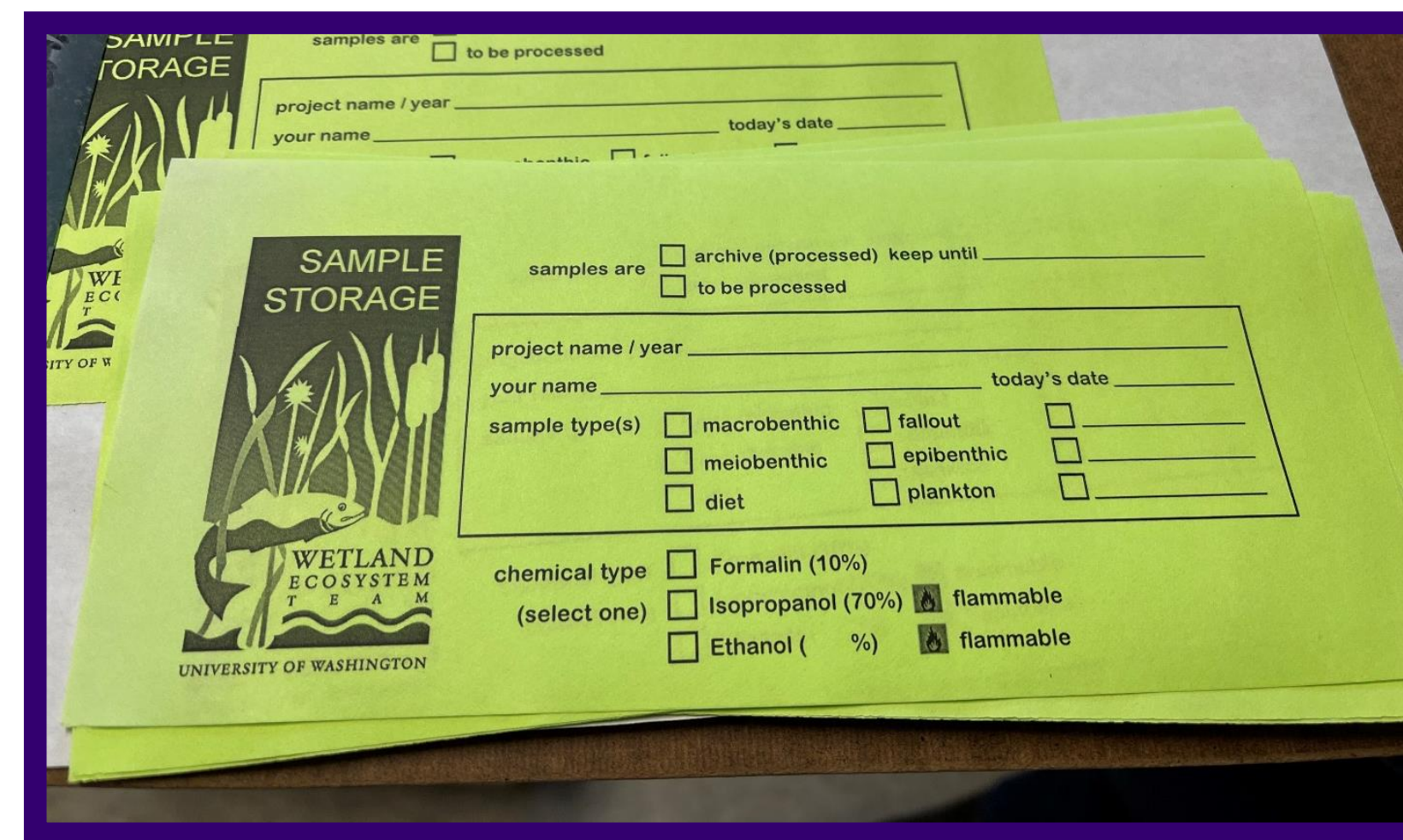
2021 LAB SAFETY AWARDS & INNOVATION EVENT



SAMPLE STORAGE SHELF LABELS THAT INCLUDE PROJECT AND CHEMICAL INFORMATION

**Toft Lab, Aquatic & Fishery Sciences
College of the Environment**

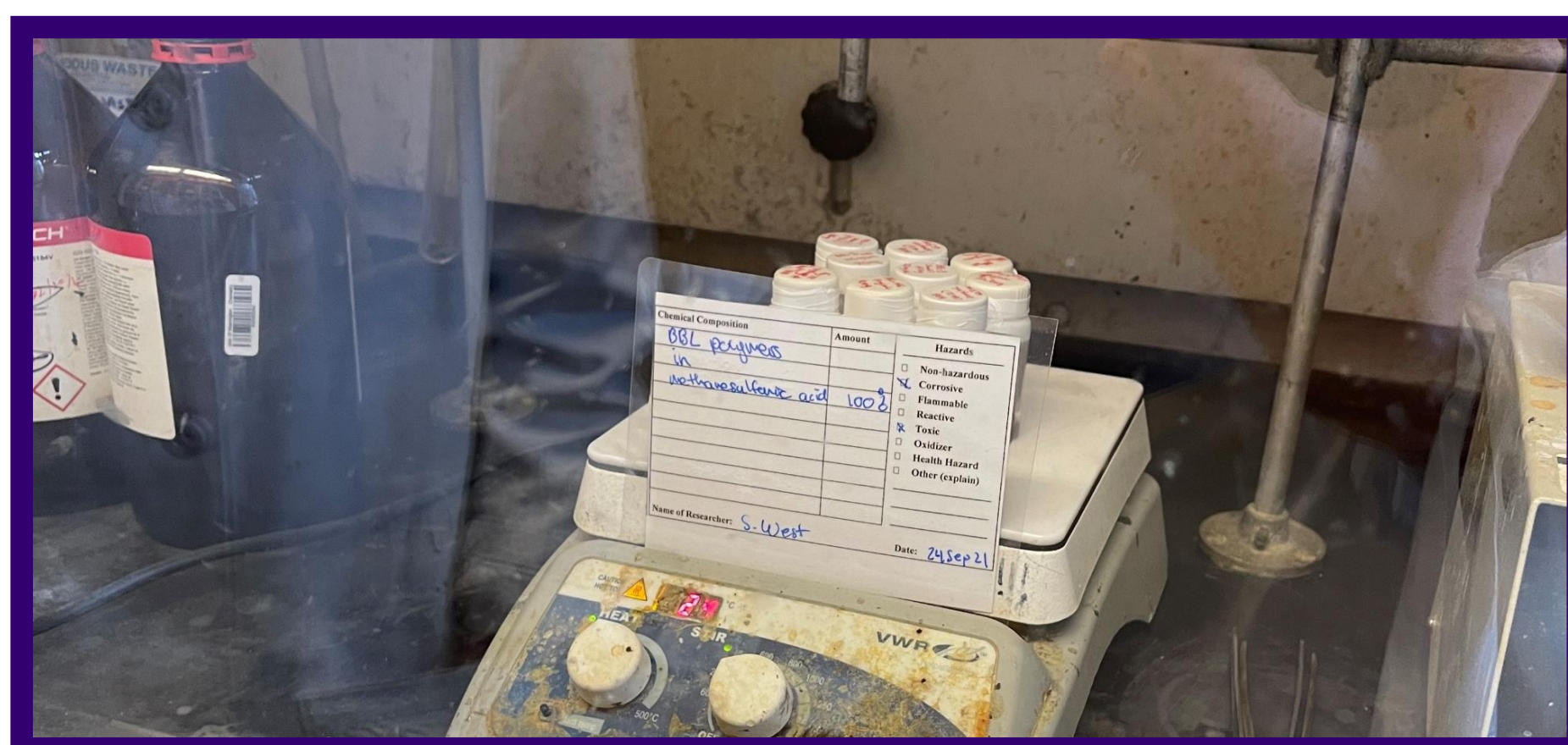
Biological samples collected in the field often need to be stored temporarily for analysis or long-term for archiving purposes. The type of tissue being preserved and the methods used for analysis require different chemical solutions to be used for sample storage. The wetland ecosystem team in the Toft lab uses these cards to ensure there is a system for capturing information about the type of sample being stored, what it will be used for, and what type of chemicals it contains, including known hazards.



CHEMICAL REACTION CARDS TO PROVIDE INFORMATION ABOUT EXPERIMENTS IN PROGRESS

**Michael Lab / Department of Chemistry
College of Arts & Sciences**

Derek Obenschain, a former graduate student in the Michael lab, designed the reaction safety card that is now distributed to all labs in the department. These cards are an effective way to inform people of the chemicals and hazards present in an experiment in progress that needs to run overnight or temporarily without supervision.



GLOVE BOX USERS PROVIDED BASKETS TO CONTAIN AND MANAGE THEIR MATERIALS

**Ginger Lab / Research Training Testbeds
Clean Energy Institute, College of Engineering**

Glove boxes can be challenging to manage due to the complexities of moving items in and out of them. This facility gives each user a basket to keep all their items in and routinely clears out items not stored in a basket. This system keeps the glove boxes organized, displays content ownership, and helps track approved users.



CHEMICAL CONTAINER LABELS PROVIDED FOR FACILITY USERS TO STANDARDIZE INFORMATION

**Huffman Lab / Washington Nanofabrication Facility
Clean Energy Institute, College of Engineering**

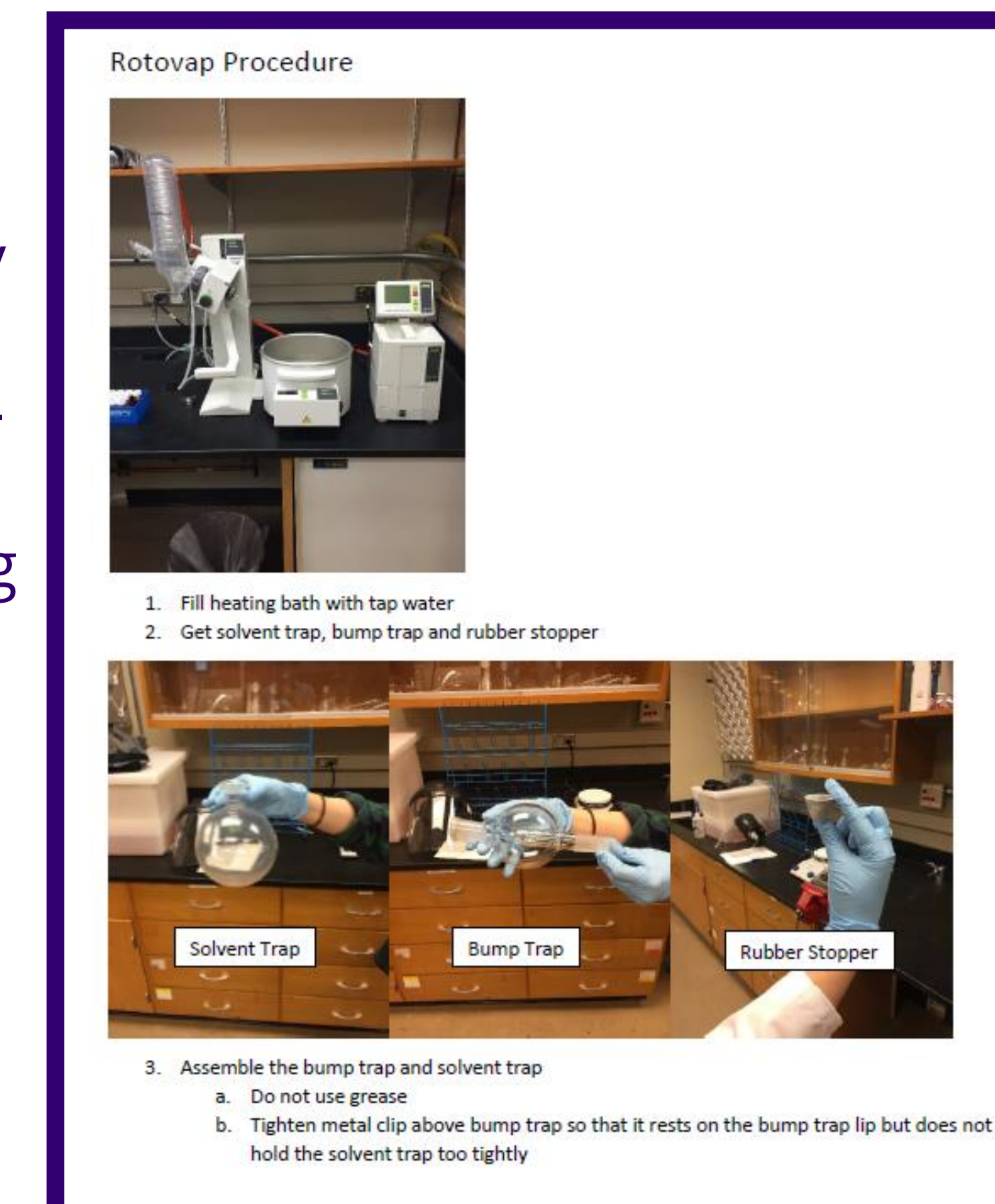
WNF manages over 15000 sq. ft. of specialized laboratory space, serving 130 unique users per month. Many chemicals used in the space are specialized and brought in by users. WNF's User Supplied Chemical process ensures appropriate reviews for safety, compatibility, SOPs, SDSs, waste practices, and MyChem updates. It leverages the CORAL administrative platform, originally implemented at WNF, and is able to generate tracking labels automatically for all chemicals in the facility.

WNF User-Supplied Chemical	
Owner:	Jean Nielsen <jniels3>
Chemical:	AZ 726 MIF Developer
Approval Expires:	2023-05-26
Storage Location:	115K - Base Storage
GHS Chemical Class:	Base

ROTOVAP SOP INCORPORATING PHOTOS OF LAB MEMBERS CONDUCTING THE WORK

**Holmberg Lab
Chemical Engineering, College of Engineering**

Providing clear and specific protocols is key to a strong safety program. Information can be given in a variety of formats, and it is important that location-specific details are captured. The Holmberg lab has made their SOP for rotovap usage very lab-specific by incorporating photographs demonstrating their own personnel using equipment in their actual lab.



FUME HOOD USER STATUS NOTIFICATION SYSTEM

**Kovacs Lab
Chemistry, College of Arts & Sciences**

Fume hoods are often used by many different people, and sometimes they are shared by different research groups. Having a simple and clear system to notify people of when a fume hood is available for use or when experiments are in progress helps prevent people from getting exposed to hazards they are unfamiliar with.



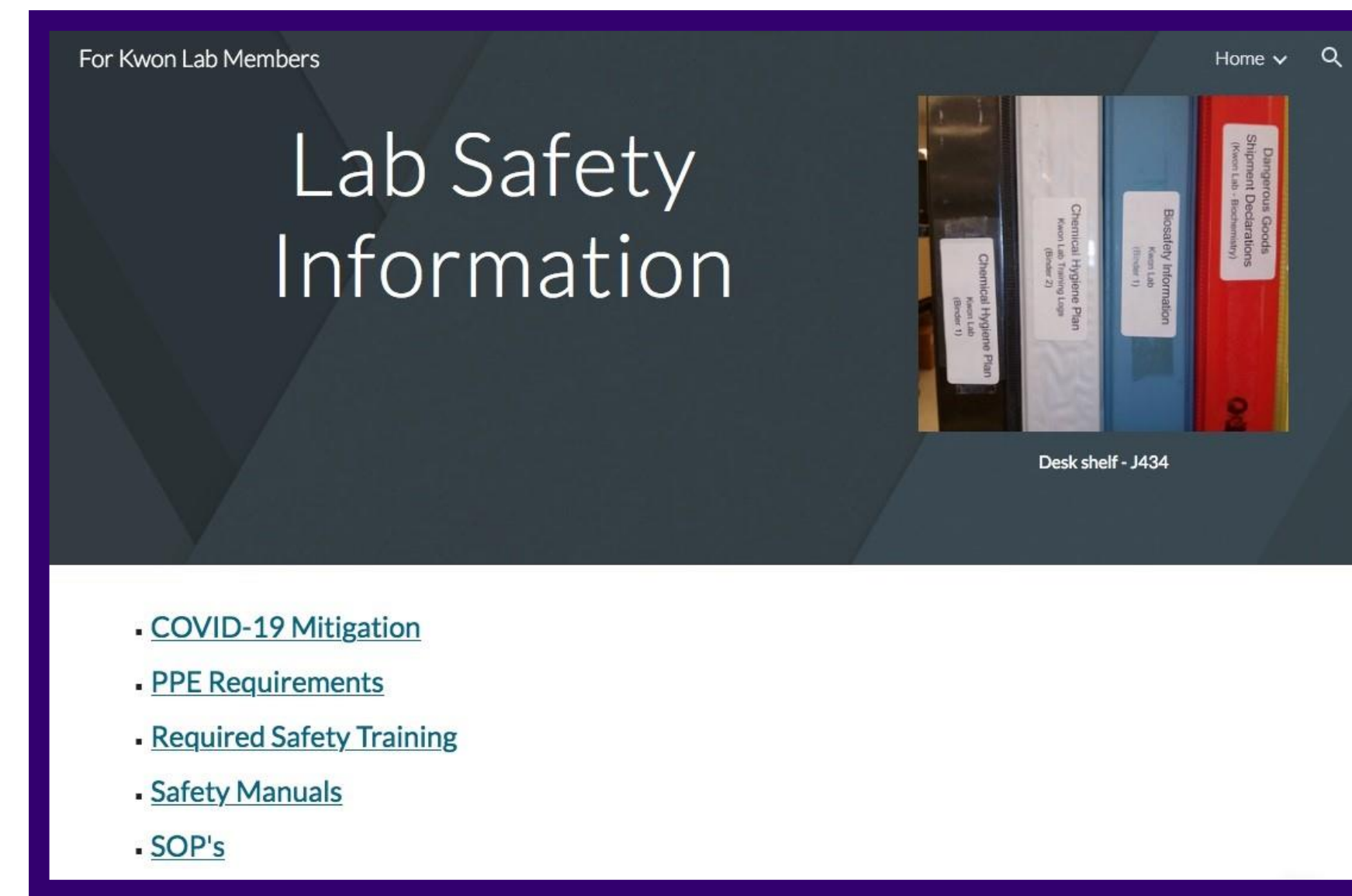
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SAFETY DOCUMENT WEBSITE FOR LAB MEMBERS AND VISITORS

Kwon Lab, Biochemistry, College of Arts & Sciences

Kenneth Dombek, the Kwon lab's chemical hygiene officer, designed a website for the group that houses all their safety resources, including COVID-related information, PPE requirements, safety training documents, safety manuals, and standard operating protocols.

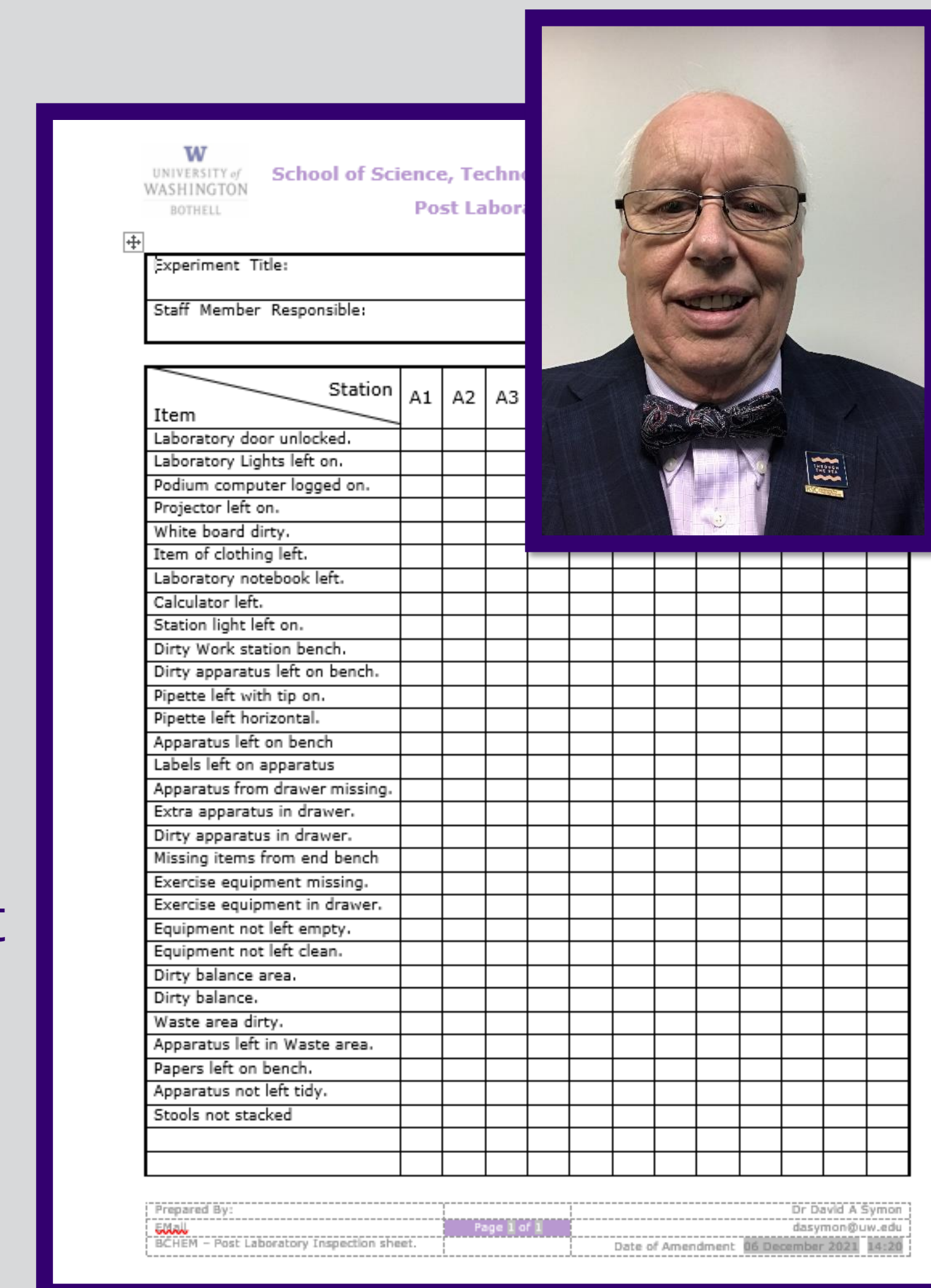


INCLUDING WORKSTATION INSPECTION SHEETS IN THE COURSE MANUAL

Symon Lab Teaching Labs, UW Bothell

To promote safety in the chemistry teaching laboratories, a course manual is produced that includes for each exercise: an SOP, SDS sheets for substances used, a list of requirements, a detailed instruction sheet for preparation of reagents used, a sheet to collect suggestions for changes/improvements, and a copy of the experiment.

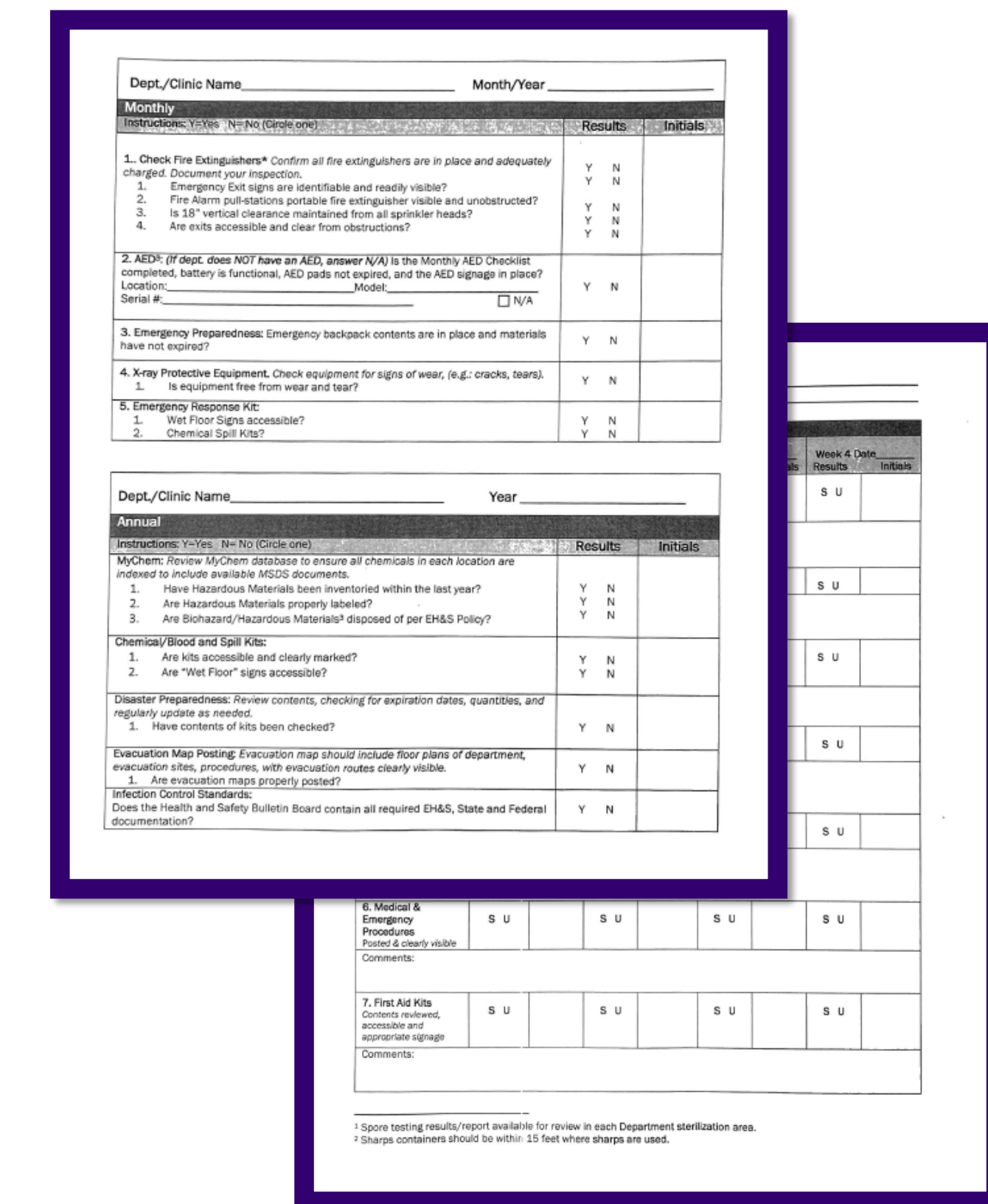
At the end of each experiment an inspection sheet is completed for each of the laboratory work stations and students are held accountable for any incomplete tasks. This system has been in use in the general chemistry teaching laboratories for over three years and has resulted in significant improvements in laboratory safety and hygiene standards.



CHECKLIST FORM TO RECORD WEEKLY, MONTHLY, AND ANNUAL SAFETY CHECKS

Carole Green Restorative Dentistry, School of Dentistry

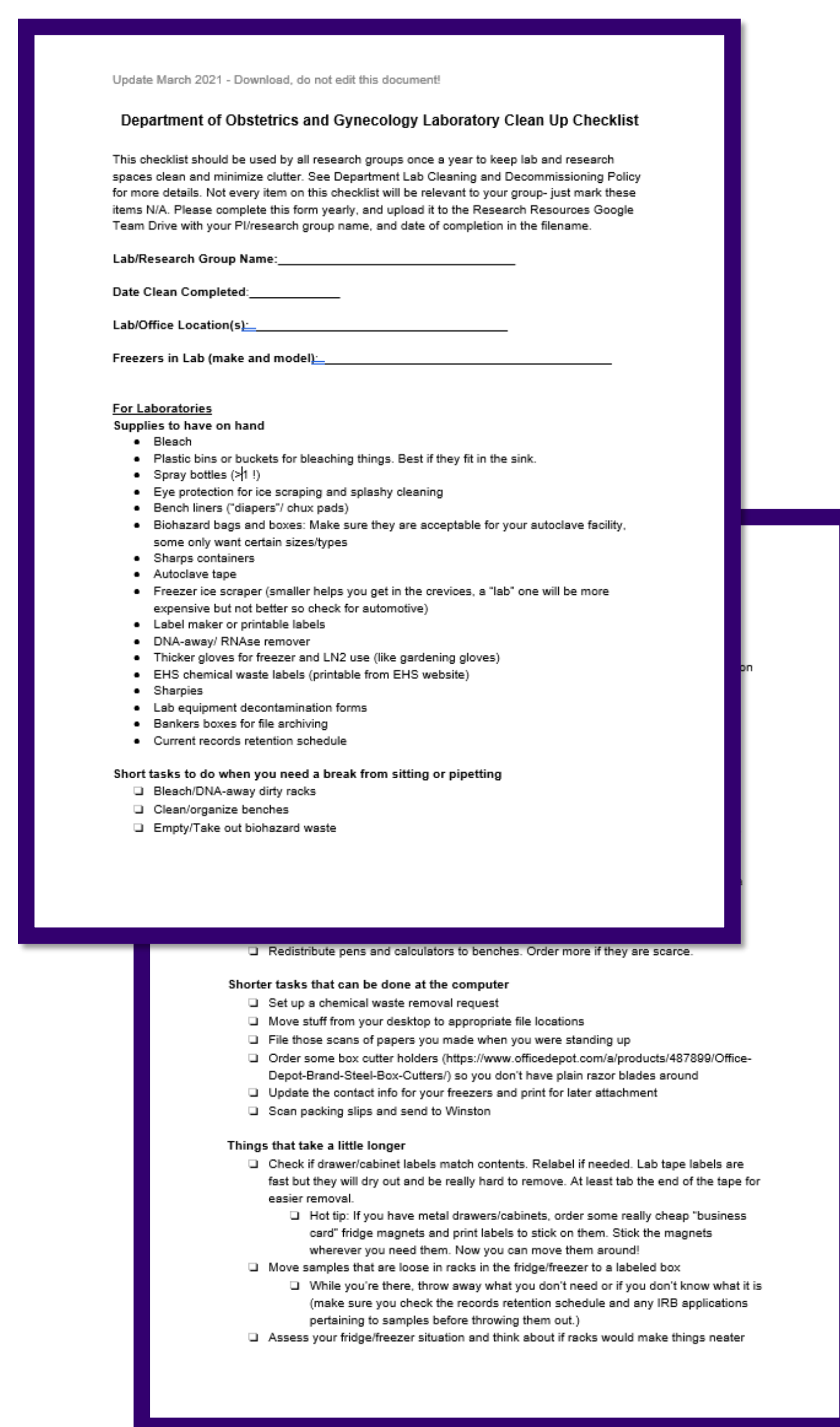
Carole Green, and administrator in the Restorative Dentistry department, started the practice of distributing a safety checklist to laboratories and clinics in the department. The checklist is an efficient way to record all different types of safety checks conducted on a weekly, monthly, or annual basis on just one sheet of paper; streamlining their safety records.



ANNUAL CLEAN UP CHECKLIST FOR LABS THAT IS REVIEWED BY THE DEPARTMENT

Department of Obstetrics & Gynecology School of Medicine

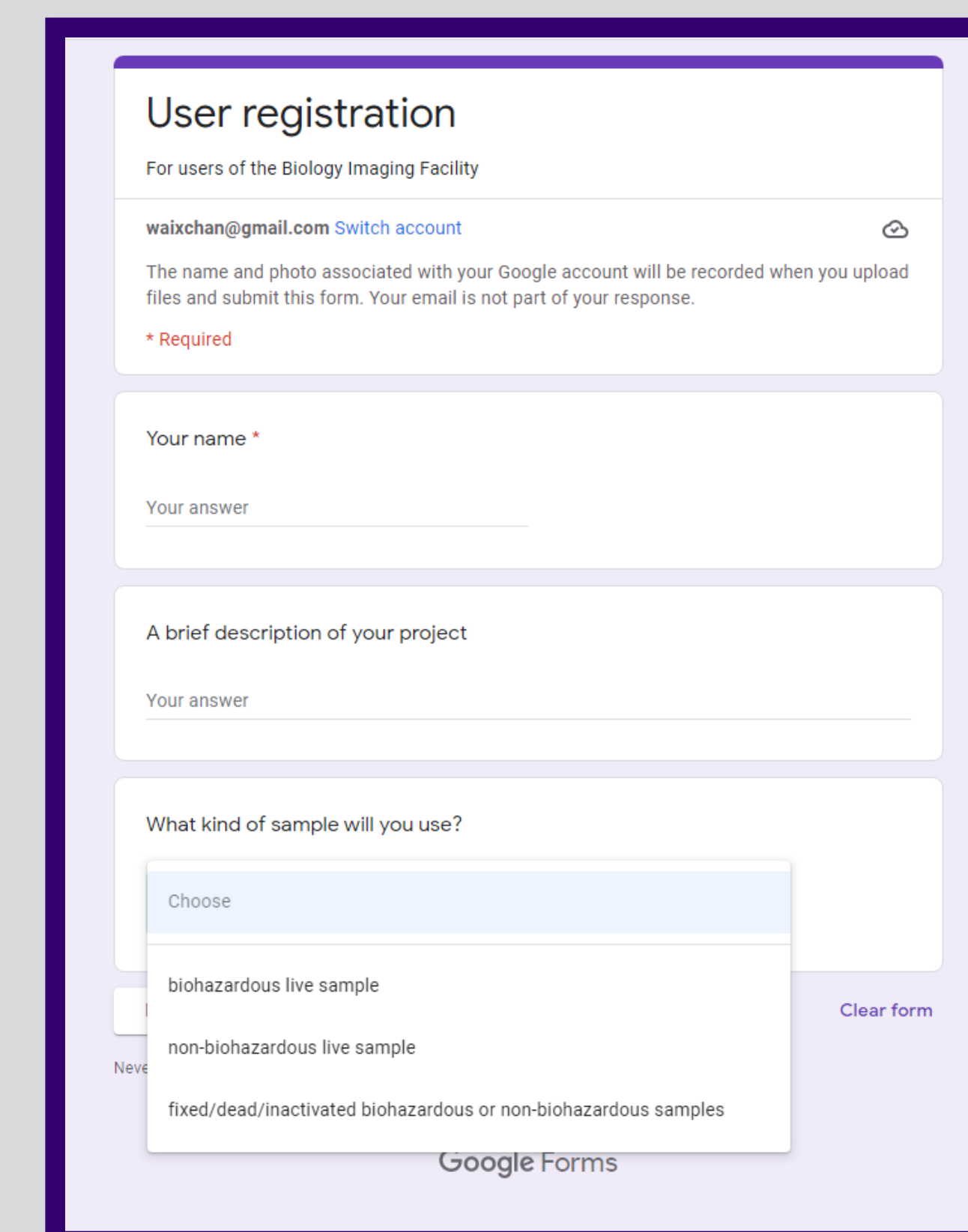
The department of Obstetrics and Gynecology sends out a checklist to all their labs on an annual basis and requires them to conduct a deep clean at a time determined by each lab. PIs are tasked with ensuring their personnel complete this activity within a month, week, or day. A completed checklist is then submitted to the department's research resources drive. The checklist was written by Claire Levy, Sean Hughes, and Katie Hitchcock-Bernhardt, and instructions for it are included in the department's cleaning policy for laboratories.



SAFETY PRACTICES ASSESSMENT TOOL FOR FACILITY USERS BUILT AS A GOOGLE FORM

Chan Lab Biology, College of Arts & Sciences

Dr. Wai Pang Chan runs the Biology Imaging Facility in the Physics / Astronomy Building. He has built a Google form to collect information from facility users about the work they plan to do. New users or current users wanting to get trained on using a specific machine complete the form, and it determines what EH&S safety training courses to take, the relevant SOP, and PPE needed.



BASECAMP SYSTEM THAT TRACKS SAFETY TASKS AND RECORDS COMPLETION

Golden Lab Biological Structure, School of Medicine

Jia Jie Choong, the Golden lab's chemical hygiene officer, has a passion for software design. He has hardcoded a website and system for the group that allows them to track all safety-related tasks that need to be done for the lab. The system is also able to send people notifications when a task has been completed, including corrective actions noted on a recent visit from EH&S.



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MONTHLY CLEAN-UP DAY WITH PARTICIPATION FROM ALL LAB PERSONNEL

Zhang Lab Chemistry, College of Arts & Sciences

Having a dedicated lab clean-up day each month can really refresh a lab space and resolve common problems in many labs (e.g., build up of waste containers, glassware, busy lab benches) yielding a clean workspace and more productive research. It is also

a way to demonstrate prioritizing safety and making attention to safety part of routine work. This practice has made a visible difference for all working in the lab.

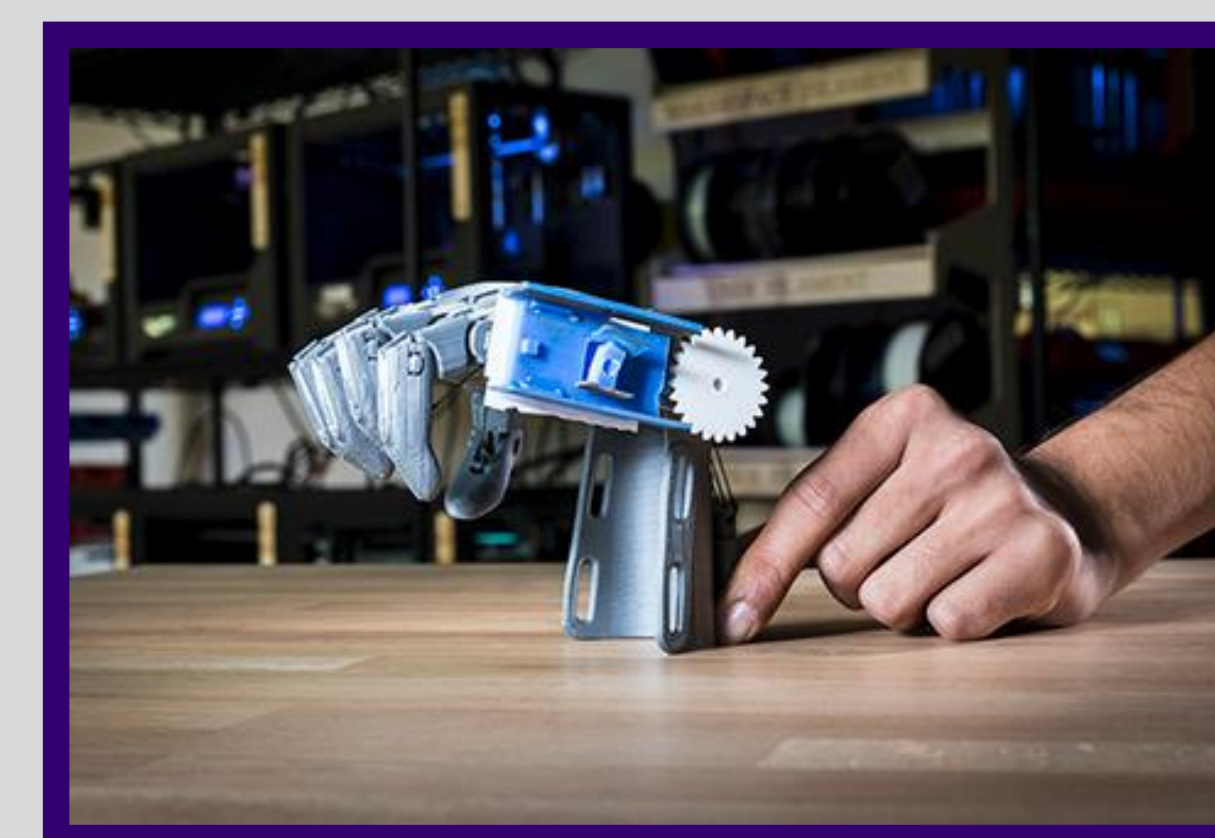


VIRTUAL BUDDY SYSTEM TO PROVIDE TRAINING AND GUIDANCE WHILE SOCIAL DISTANCING

Fabrication Research Lab Computer Science & Engineering, College of Engineering

The Fabrication Research Lab created a virtual buddy system by adding cameras to the space and combining them with the ability to remote into an on-site control

computer. This allowed lab members to communicate with the lab manager, who would watch for any potentially hazardous conditions and contact emergency services if needed. This system allowed critical research to continue while ensuring social distancing and reduced facility occupancy and maintaining most of the safety benefits of a buddy system in the laboratory.



Restorative Dentistry Department School of Dentistry

PROVIDING PLATE COVERS TO BLOCK NON-GFCI RECEPTACLES

Electrical outlets need to be replaced with GFCI receptacles if a sink or work with liquids is installed in the same location. Replacing outlets can be expensive and there may no longer be a need to have any receptacles in that location. To address this situation in their laboratories, the department of Restorative Dentistry has given out covers that can be placed on the outlets to prevent them from being used and to protect personnel from the electrical hazards.



PHASING OUT USAGE OF OPEN FLAMES TO REDUCE ACCIDENT RISK



To reduce the risk of incidents or accidents with open flames, the department of Restorative Dentistry has asked all of their laboratories to commit to phasing out usage of open flames by a specific date. Equipment and practices that include open flames are being replaced with new tools and practices that have lower risk.

EVACUATION PRACTICE DRILLS CONDUCTED BY THE LAB MANAGER

Mourad Lab Neurological Surgery, School of Medicine

The Mourad lab's chemical hygiene officer, Kahte Culevski, routinely conducts evacuation drills for lab personnel to ensure that they know how to get out of their lab spaces safely in the event of an emergency.

Floorplans showing the designated evacuation route are posted in each of the lab's rooms to help guide personnel when needed.



USING MYCHEM TO LIST INSTRUCTIONS FOR CHEMICAL USAGE IN THE LAB

Ceze Lab, Computer Science & Engineering, College of Engineering

All laboratories on campus use MyChem to store their chemical inventories, and everyone is required to use an SOP for working with those chemicals. It can be complicated to know which SOP to use for a specific chemical if it has multiple hazards and uses. To address



this, the Ceze lab came up with the system of using MyChem to store notes about which of their SOPs to use for every chemical in their inventory, making it easy to know what to do.

DAILY, MONTHLY, AND ANNUAL MAINTENANCE CHECKLIST FOR LAB'S AUTOCLAVE EQUIPMENT

Swisher Lab Obstetrics & Gynecology, School of Medicine

A variety of autoclaves are used on campus, including small tabletop ones. These are usually maintained only by the researchers who use them, so it is important that maintenance checks do not get forgotten. The Swisher lab

has created a checklist that they can post next to the equipment to remind users of the daily, monthly, and annual checks that need to be performed. Having the checklist posted next to the equipment reminds people to use it.

Frequency	Procedure
Each Use	Wipe down door gasket Leave door open after use Use only distilled water Clean air jet
Monthly	Clean water sensor Clean tray holder and tray Oil door pins and tightening bolt Run Chamber/Brite cycle (as needed)
Annually	Clean water strainer Check safety relief valve Inspect door gasket and replace if needed