

## Using a Database and AutoCAD Software for Campus Planning, Maintenance and Emergency Management

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## Topics

- Background
- Programs Included
- Contents of Database
- Information Displayed on Map
- Environmental Compliance
- Routine Maintenance
- Construction and Demolition Projects
- Emergency Planning
- Emergency Response
- Future Changes

## Background

- Multiple departments responsible for programs
- Multiple databases
- Separate mapping systems
- Unreliable information

## Background

- Environmental Health and Safety given oversight of all programs
- Federal law revisions and amendments



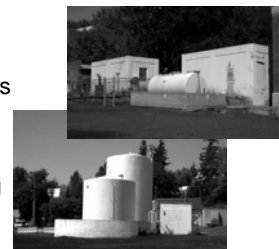
## Programs Included

- EPCRA (Emergency Planning and Community Right-to-Know Act)
  - Inventory of high volume and high hazard chemicals
    - Annual report
  - Tier 2 reporting
    - Specific location
    - Maximum potential volume
    - Type of container
    - Annual report



## Programs Included

- SPCC (Spill Prevention Control and Countermeasure)
  - Inventory of bulk oil storage containers
  - Mapping
  - Annual inspections
  - Emergency planning information



## Programs Included

- PCB (Polychlorinatedbiphenyls) Management
  - Inventory of electrical equipment
  - Analytical, manufacture information, or assumption rule
  - Annual report



## Programs Included

- CFC (Chlorofluorocarbons) Management
  - Inventory
  - Mapping
- Municipal Storm Water Phase II Permit
  - Mapping

## Programs Included

- Lab Signage
  - Potential hazards
  - PPE (Personal Protective Equipment) recommendations
  - Emergency contact information
- Department of Homeland Security



## Contents of database

- Program item relates to
- Building information
  - Name
  - Building number
  - Room number/outside location
  - Building served
  - Map section

## Contents of database

- Map links
  - Specific container location
  - Lab signage information
- Container information
  - Item type
  - Identification number
  - Volume
  - Content
  - Electrical information

## Contents of database

- Inspection information
  - Date
  - Security information
  - Signage information
  - Secondary containment
  - Container comments
  - PCB information
  - General inspection comments

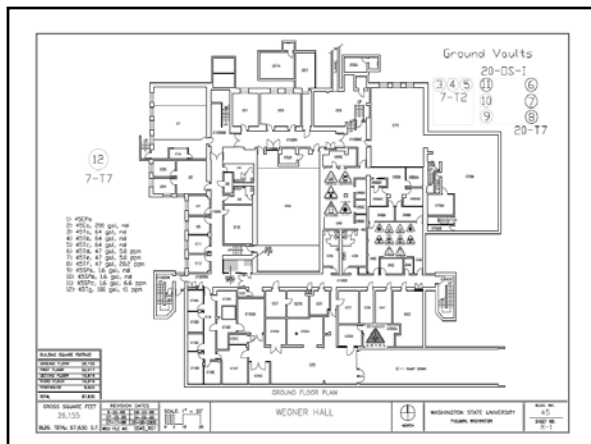
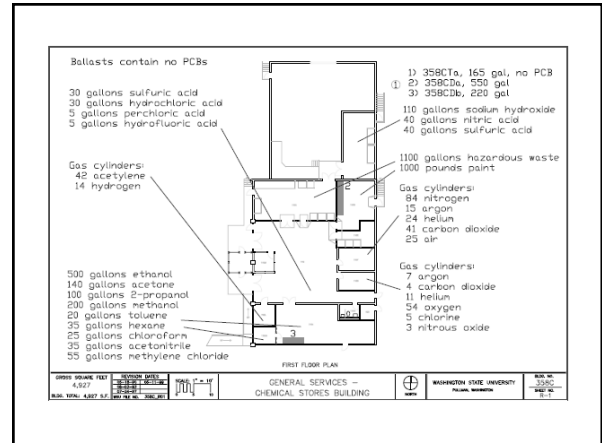
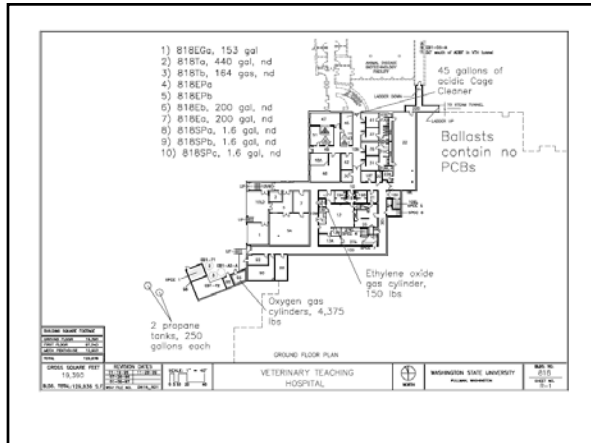


## Contents of database

- Emergency information
  - Possible type of failure
  - Potential release rate
  - Probable direction of flow
  - Drain information
  - Link to map
  - PCB analysis
  - Confined space

## Information displayed on map

- Building name and number
- Floor
- Rooms
- Specific container location
- Container information
- Lab signage
- Electrical information



## Environmental Compliance

- Current inventories
- Location
- Mapping
- Annual reports
- Inspections

Access: Yes	PCB Contained: Inexp
Building Number: 045	PCB Collect Date: 4/18/2007
Building Name: Wegner Hall	PCB Date Analyzed: 4/15/2007
Plotter Number: outside ground vault	PCB Concentration: 0.0
Building Reserved: Wegner Hall	Restrictions: Yes
Section: NIS	Release Date: 3/3/2007
Name: Transformer	Storage Location:
Condition: OK	Last Inspection: 1/24/2007
Voltage (Volts): 47	Near Faced on Front:
Possible Type of Failure: Unit failure or leak	Confined Space: no
Potential Release Rate: 47 ppm	Commercial Building: Yes
Dimensions of Flow:	Integrity of Containment/Vessel intact: Yes
Security: Yes	Integrity of Tank Supports Intact: NA
Security Comments: Locked Vault	Visible Oil or Containment: No
SPCC Number: #519	Leakage: No
PCB ID #: 20-77-3	Inside Floor Drain: Yes
Manufacturer: Spokane Transformer Company	Secondary Containment: Vault
Date of Manufacture:	Containment Dimensions:
Serial Number: 980854N	Signs: Yes
Model Number:	Sign Comments: Blue 150 ppm certification, non-PCB
Rating (NVA): 157	Inspection Comments: NEEDS DRAIN PLUG
Voltage Rating: 4800/200-120/240	
Switch Type:	
Switch Size:	
Transformer Type: radial	
Secondary Voltage Rating: yes	
Impedance: 2.8%	
Weight (lb): 1380	
Installation Type: pole	
Temperature Rating: 60 C	
Stored: In Use	

## Routine Maintenance

- Lab Signage Program
  - Background
  - Regulations
  - Assist maintenance personnel
- Online form
  - Security
  - One per laboratory and/or shop

### Location and contact names and numbers

**Edit Contact Information**

Contact information (Office Location)

Department:

Building:

Room:

Phone:

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Sign (Lab) Location Information

Building:

Room:

Phone:

Emergency Contact #1:  Phone:

Emergency Contact #2:  Phone:

### List of potential hazards

Each sign may only contain seven hazards. Additional hazards are generated additional signs. Select the sign by clicking the box directly below the hazard listed.

### Recommended/required PPE

**Safe PPE Selection**

Select the personal protective equipment (PPE) which is authorized. Please Note that you are authorized to authorize sign (not for creation).

Head  Hearing  Eye  Foot  Electrical  
 Respiratory  Hand  Body  Fall  Motion

Select a hazard assessment has been completed. Based on the results identified below the appropriate PPE is displayed. PPE is required when the hazard is present. PPE is not required when the hazard is not present. PPE is not required when the hazard is not present. PPE is not required when the hazard is not present.

### Completed sign

CAUTION

To access this area all personnel must understand the hazards before entry or work is allowed. Contact PI or Supervisor for additional information.

Department Name: Vet Med Location: VET TCHG HSP - RM 1111C  
 Contact # Business Hours: 335-0711 Non-Business Hours: 911

AREA HAZARDS AND WARNINGS:

**LEVEL 1**

MINIMUM PPE REQUIRED FOR ENTRY:

**Surgical Mask**

**Bonnnet**

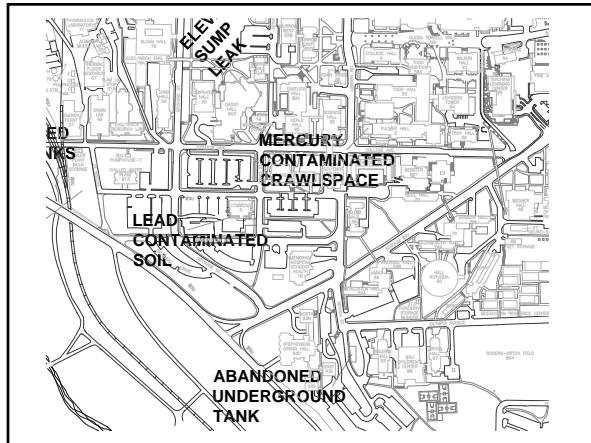
Animals may be present.  
Anesthesia gases may be present.

## Routine Maintenance

- Custodial work
- Routine maintenance
- Work orders
- Required annual updates
- Decontamination certifications

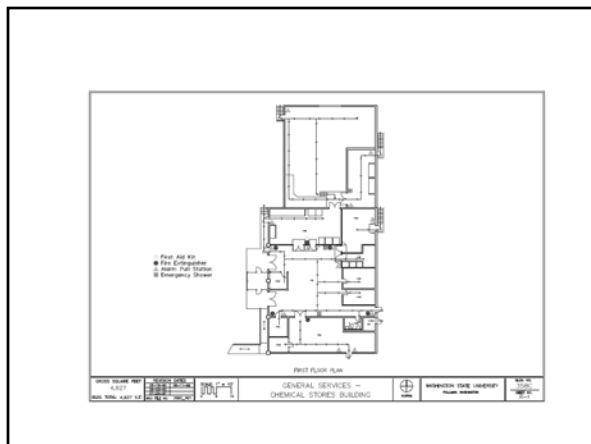
## Construction and Demolition Projects

- Map of contaminated sites
- Map of ASTs and USTs
- Preplanning meetings and construction blueprints
  - Location and content of electrical equipment to be removed/added
  - Location of high volume items to be removed/added



## Emergency Planning

- Annual inspections
- Campus familiarization for Pullman Fire Department / Palouse Regional Hazardous Materials Response Team
- Quarterly interagency table top exercises
- Mapping of high hazard and high volume materials
- Evacuation routes on maps



## Emergency Response

- Maintenance emergencies
  - Water leaks in laboratory buildings
    - Treated as unknown chemical spills
  - Call list used depending on hazards on sign
    - Radioactive – Radiation Safety Office
    - Biological – Office of Research/EH&S
    - Chemical – EH&S
    - Mixed – all appropriate departments



## Emergency Response

- Maintenance emergencies
  - All other emergencies
    - During office hours
      - Call Facility Operations dispatch
      - Check database for any items of concern
      - EH&S notified to answer any questions
      - Trained employees are sent to repair problem



## Emergency Response

- Maintenance emergencies
  - During nonworking hours
    - Call Facility Operations dispatch
    - Check database for any items of concern
    - Call list used to contact appropriate personnel to determine if immediate repairs required

## Emergency Response



- Accidents (injury)
  - 911 (WHITCOM)
  - Appropriate personnel sent to scene
  - EH&S performs cleanup if necessary

## Emergency Response



- Chemical releases
  - 911 (WHITCOM)
  - Appropriate personnel sent to scene
  - Mapping and database system used in route
  - Lines of authority vary depending on incident
  - EH&S performs emergency response and cleanup on all chemical releases

## Future changes

- Include asbestos program
- Complete electronic versions of evacuation routes
- Adding digital photos of items or locations of concern

Any Questions?