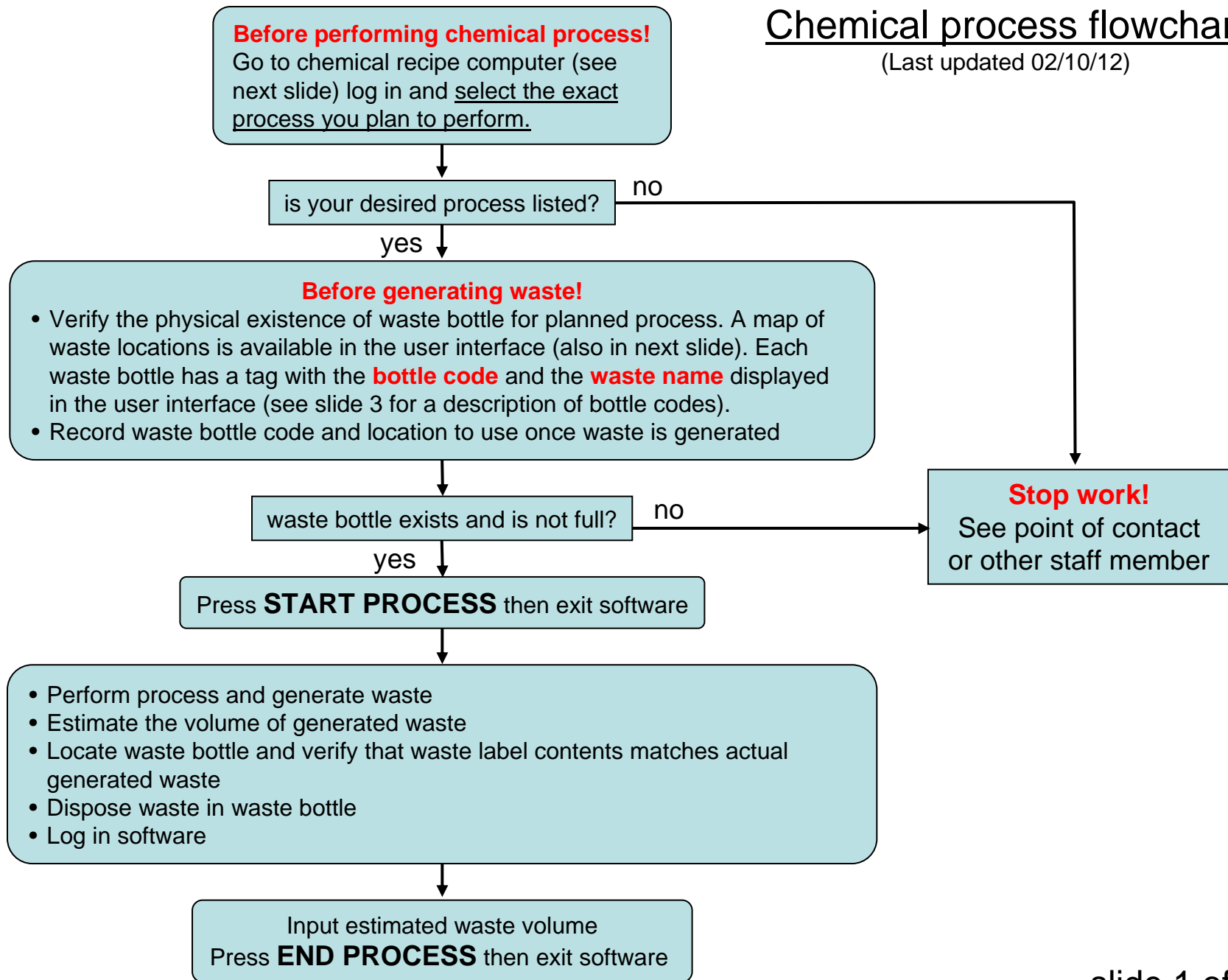
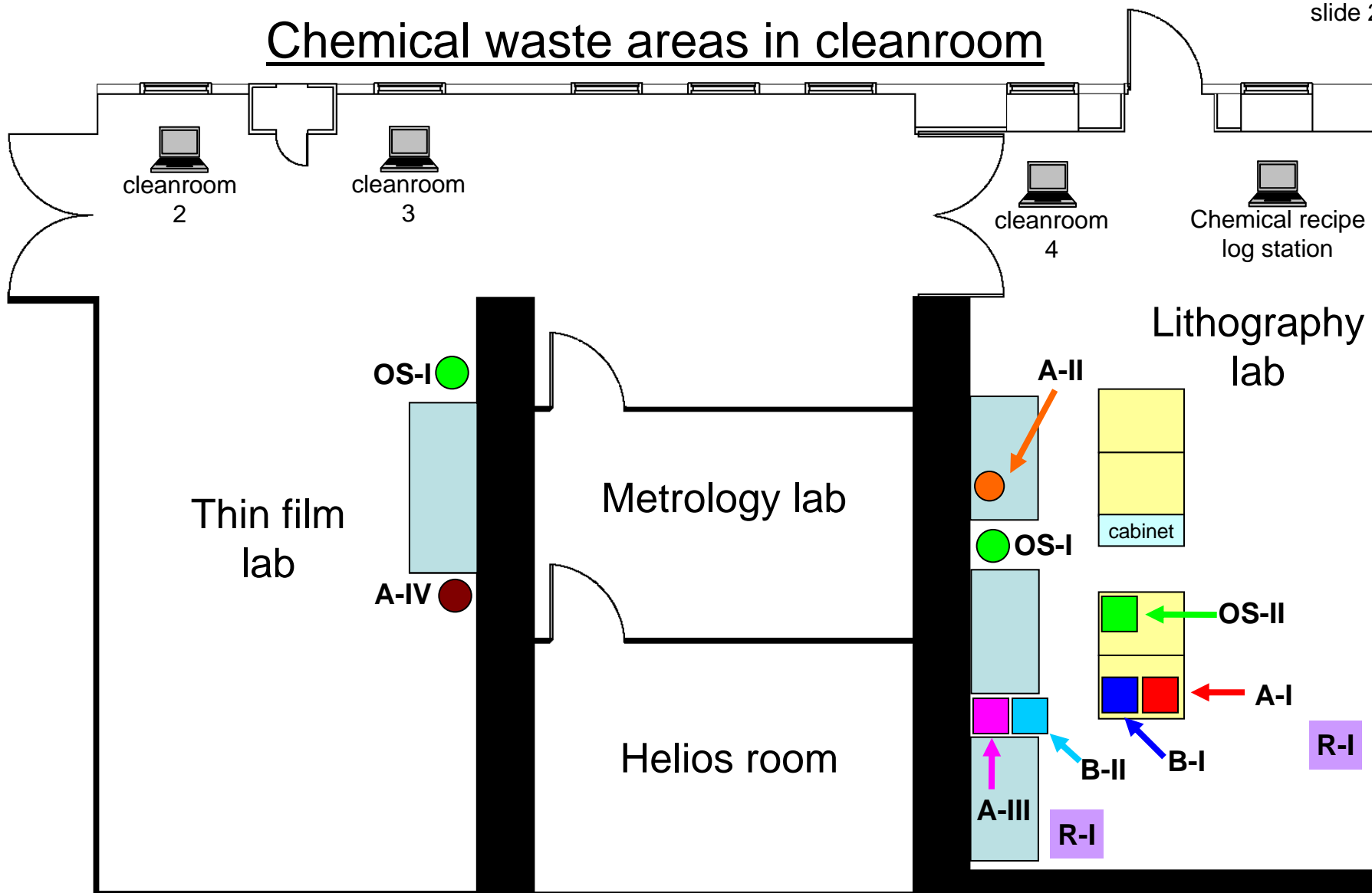













# Chemical process flowchart

(Last updated 02/10/12)



# Chemical waste areas in cleanroom



- |  |  |  |
|--|--|--|
|  A-I (acids only!)                |  B-I (bases only!)                          |  R-I (photo and e-beam resists) |
|  A-II (piranha only!)             |  B-II (RCA-SC1 only!)                       |  Hood                           |
|  A-III (aqua regia only!)         |  OS-I (only for IPA, Methanol and Acetone!) |  Workbench                      |
|  A-IV (buffered oxide etch only!) |  OS-II (organic solvents only!)             |  |

# Description of Waste Bottle Codes

Waste bottle codes are found in tags attached to the neck of waste bottles. To find a waste bottle:

- 1) Locate the waste cabinet where the waste bottle is stored. The waste cabinet/area name consists of the letter and roman numeral in the waste bottle code (see example below). For a map of locations of waste cabinets/areas see next slide.
- 2) The rightmost number in the waste bottle code denotes the bottle number inside the corresponding cabinet/area (see example below)

Example:

**A-I-3**

```
graph TD; A["A-I-3"] --> B["Waste cabinet/area group:"]; A --> C["Waste cabinet/area number (roman numeral)"]; A --> D["Waste bottle number"]; style B stroke:#f00,stroke-width:2px; style C stroke:#f00,stroke-width:2px; style D stroke:#f00,stroke-width:2px;
```

Waste cabinet/area group:

**A**=Acid

**B**=Base

**OS**=Organic solvent

**R**=Photo or e-beam resist

**HW**=Hazardous waste

**OW**=Other waste

Waste cabinet/area

number (roman numeral)

There might be more than one cabinet/area of same chemical group

Waste bottle number

Bottle number inside cabinet/area

# Instructions for Chemical Recipe Log Station

## Before performing chemical process!

- 1) Open Chemical Recipe Log software (waste-log.exe). Enter your life number.
- 2) Select the chemical waste you plan to dispose. The listed waste has to be the exact waste you are planning to generate.
- 3) Locate the actual (real) waste bottle according to the listed waste bottle code (a **MAP OF WASTE LOCATIONS** can be obtained from the corresponding user interface button).
- 4) Verify that the waste name on the bottle matches the name in the user interface and that the bottle can accept the waste amount you plan to produce.
- 5) Record on your notebook (or something similar) the waste bottle code and location to use once waste is generated.
- 6) Go over any particular instructions (click **SOP** button). Also, review any potential hazards and safety precautions (click **MSDS** button). THE INFORMATION IN THE USER INTERFACE DOES NOT REPLACE THE SPECIFIC INSTRUCTIONS YOU HAVE RECEIVED WHEN TRAINED TO WORK WITH THE LISTED CHEMICALS.
- 7) Press **START PROCESS** in the user interface and exit software.

## After performing chemical process!

- 1) Bring the correct waste bottle to the waste generation area (usually under a chemical hood).
- 2) Verify that the waste bottle code in the bottle tag is the one you have recorded in your notebook. Also, verify that the bottle tag waste name matches the actual generated waste.
- 3) Dispose waste in waste bottle. Follow all the safety protocols you learned during training when performing this task.
- 4) Store bottle in its appropriate waste cabinet or waste area (a **MAP OF WASTE LOCATIONS** can be obtained from the corresponding user interface button).
- 5) Open Chemical Recipe Log software (waste-log.exe). Enter your life number.
- 6) Enter the estimated volume (in milliliters) of generated waste.
- 7) Press **END PROCESS**, then exit software.