



# Toxics Use Reduction Institute Initial Site Visit

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# New Company - Before the Site Visit



- Who are you working with?
  - How did they hear about you?
  - Background of company
- Connect through phone and email
  - Set up a site visit
    - Request to bring another person (if available)
    - Ask what Personal Protective Equipment (PPE) to wear
  - Go over the process they are concerned about
  - Ask if an NDA is needed/what is covered
  - Send the company the Test Request Form
    - [Online Version](#)

# Setting Up Site Visits

- Who should be involved at company
  - Management
  - EHS
  - Shop floor worker
- External Partners
  - Technical Assistant provider
  - Vendor representative
  - Waste disposal provider

# Test Request Form

- Two page form
- Can be completed before or during site visit
- Allows company to:
  - Explain their current process and needs
  - Determine how they verify cleanliness
    - What is clean?
  - Identify other surprise cleaning steps in the process (or processes)

**TEST REQUEST FORM**

Email, Fax or Mail completed form to:  
 The Massachusetts Toxics Use Reduction Institute Cleaning Laboratory  
 University of Massachusetts Lowell  
 One University Avenue  
 Lowell, MA 01854-2866  
 Fax: (978) 934-4962  
 ATTN: Alicia McCarthy  
 Email: Alicia\_McCarthy@uml.edu; Telephone: (978)934-3889

1. Please print or type. Be as thorough as possible.  
 2. Attach MSDS of present relevant chemistries.  
 3. Do not send any samples/parts without first contacting SSL.      Date of Submission: \_\_\_\_\_

**CONTACT INFORMATION**

Company Representative: \_\_\_\_\_ Title: \_\_\_\_\_  
 Company Name: \_\_\_\_\_ Tel.: \_\_\_\_\_  
 Address (Street): \_\_\_\_\_ FAX: \_\_\_\_\_  
 City/Town: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Email: \_\_\_\_\_ Web site: \_\_\_\_\_

How did you hear about this state service? Conference/Meeting; Consultant; DEP; EPA; Internet/Website;  
Journal/Article; OTA; Student; TURI; Within Company; Town Official; Used lab before; Vendor  
Other: \_\_\_\_\_ Specific Person: \_\_\_\_\_

What is the objective of this test? \_\_\_\_\_

**PROCESS DESCRIPTIONS**

What is the purpose of cleaning (i.e., desired product specifications)? \_\_\_\_\_  
 \_\_\_\_\_  
 What are the problems with present cleaning system? \_\_\_\_\_  
 \_\_\_\_\_

**DESCRIBE THE PART/PRODUCT TO BE CLEANED**

What is this part/product used for? \_\_\_\_\_

Select material(s) of construction: Aluminum Brass Ceramic/marble Copper Electronics Glass Nickel Stainless-Steel  
Steel Plastic Alloys  
Other: \_\_\_\_\_

Specify specific types: \_\_\_\_\_  
 List percentages cleaned: \_\_\_\_\_ (i.e., 60% Al, 40% 304 stainless steel)

Surface type: Rough or Smooth    ---    Hard or Soft  
 Geometry: Simple (e.g., flat) OR Complex (contains inaccessible areas)  
 Approx. size: Small Medium Large (dimensions in inches): \_\_\_\_\_  
 Weight:  < 1/2lb,  < 1lb,  < 5lb,  < 10lb,  < 50lb,  > 50lb weight: Min. \_\_\_\_\_ Max. \_\_\_\_\_

**DESCRIBE THE CURRENT CLEANING PROCESS**

Contaminants to remove: Oil Machining-Fluid Lubricant Grease Buffing Adhesive Resins Flux Ink Paint Wax  
Coating Dirt  
Other: \_\_\_\_\_

Are samples of contaminants available? No Yes (if available, attach MSDS)

Manufacturer	Product	Amount Used per year (month or week)

Manufacturing step immediately before cleaning: \_\_\_\_\_  
 Manufacturing step immediately after cleaning: \_\_\_\_\_  
 # parts cleaned per week (or shift, etc.): \_\_\_\_\_ per batch: \_\_\_\_\_

# Test Request Form: *What are we asking?*

- What is the purpose of cleaning?
  - Why are you even cleaning it?
- What is the part used for?
- What is the material being cleaned?



# Test Request Form: *What are we asking?*

- What are the contaminants (a.k.a soils) being removed?
  - Are there samples available?
  - Email SDSs of contaminants and cleaners currently being used
- What equipment are they currently using?
  - Pressure?
  - Temperature?
  - kHz?
  - Are they planning to buy new equipment?

# Test Request Form: *What are we asking?*

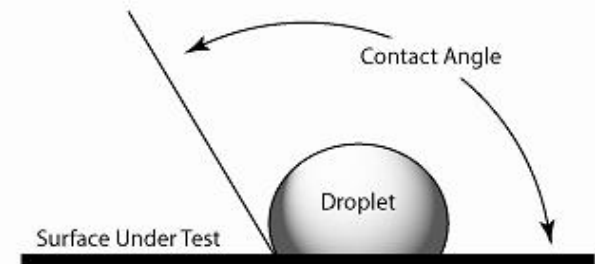
- How long is the cleaning process?
- How are the cleaning chemicals being used?
  - Cost
  - Amount used?
  - How often?
  - How much are they willing to pay for an alternative?
  - What alternatives have already been tested?





# Test Request Form: *What are we asking?*

- Is there a rinse or dry step?
  - Method?
  - How long?
  - Temperature?
- How do they evaluate cleanliness?





# Site Visit Prep – Things to Bring

- Bring an industrial bottle carrier
  - Gloves
  - Paper Towel Sheets
  - Sharpie
  - Paper Towels
  - Lab Tape
  - Empty Bottles with Caps for Liquid Samples



# Site Visit Prep – Things to Bring Cont.

- Copy of the filled (or new) Test Request Form
- Closed-toed shoes
- Safety Glasses
- Additional PPE directed by the company
- Notebook and pen
- Phone



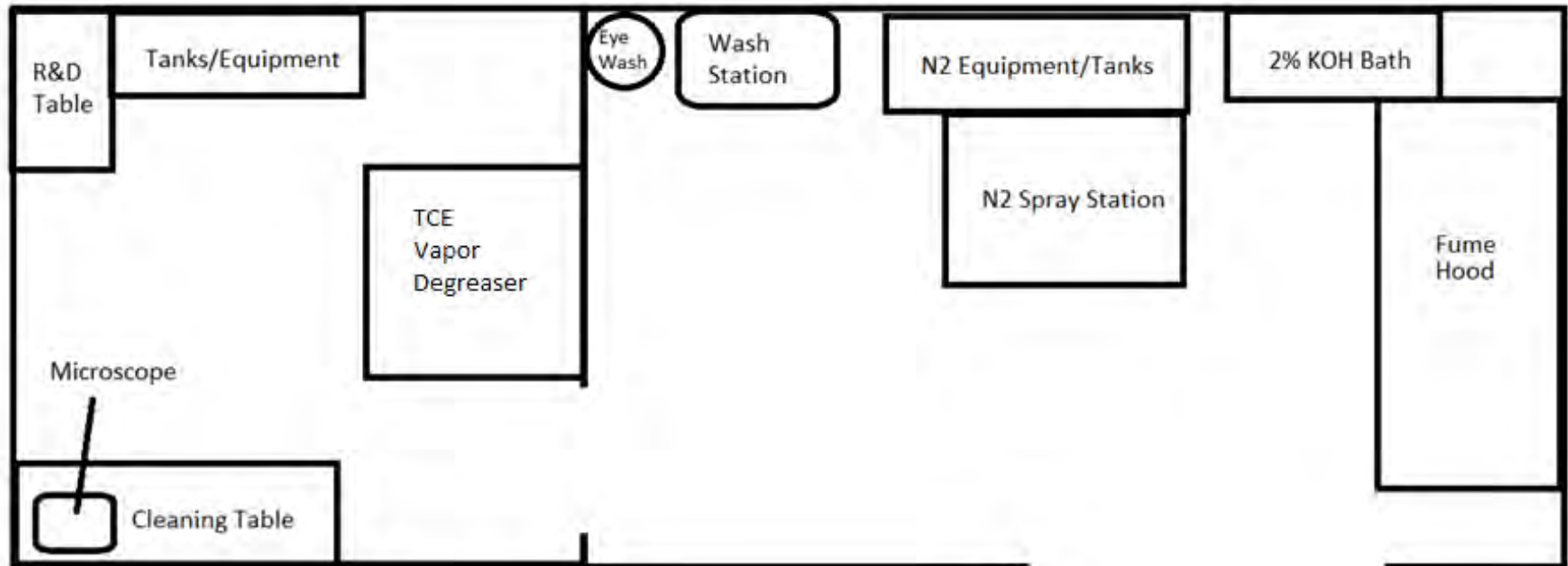
# Site Visit

- Initial walk through of each facility will be needed to ensure
  - Adequate understanding of the cleaning process
  - Obtain input from workers conducting the cleaning
  - Arrange for collection of sample parts and soils

# Site Visit

- Meeting first
  - Introductions
  - Background Overview from Company
  - Meet their team tasked to the process
  - Ask questions pulled from gaps in the Test Request Form
- Visit the area where the cleaning takes place
  - Even if the cleaning isn't happening, ask to see the area

# Checking Out the Cleaning Area







# 10 Things to do on a Site Visit

## 1. Supplies to bring

- A. Nitrile gloves
- B. Empty containers
- C. Tape for labels
- D. Sharpie(s), pen(s)
- E. Ziploc bags (gallon or quart)
- F. Paper towels

## 2. Test Request Form

- A. Print out filled version submitted test request form
- B. Fill out the empty spots (those are follow-up questions)

## 3. Background

- A. Research on the company on what they do

## 4. Introductions

- A. Who you are and what the TURI Lab does, next steps
- B. Ask the employees to a little bit about themselves
- C. Engage with what you learned about the company
- D. Ask if you can take photos or could be provided with photos for reference

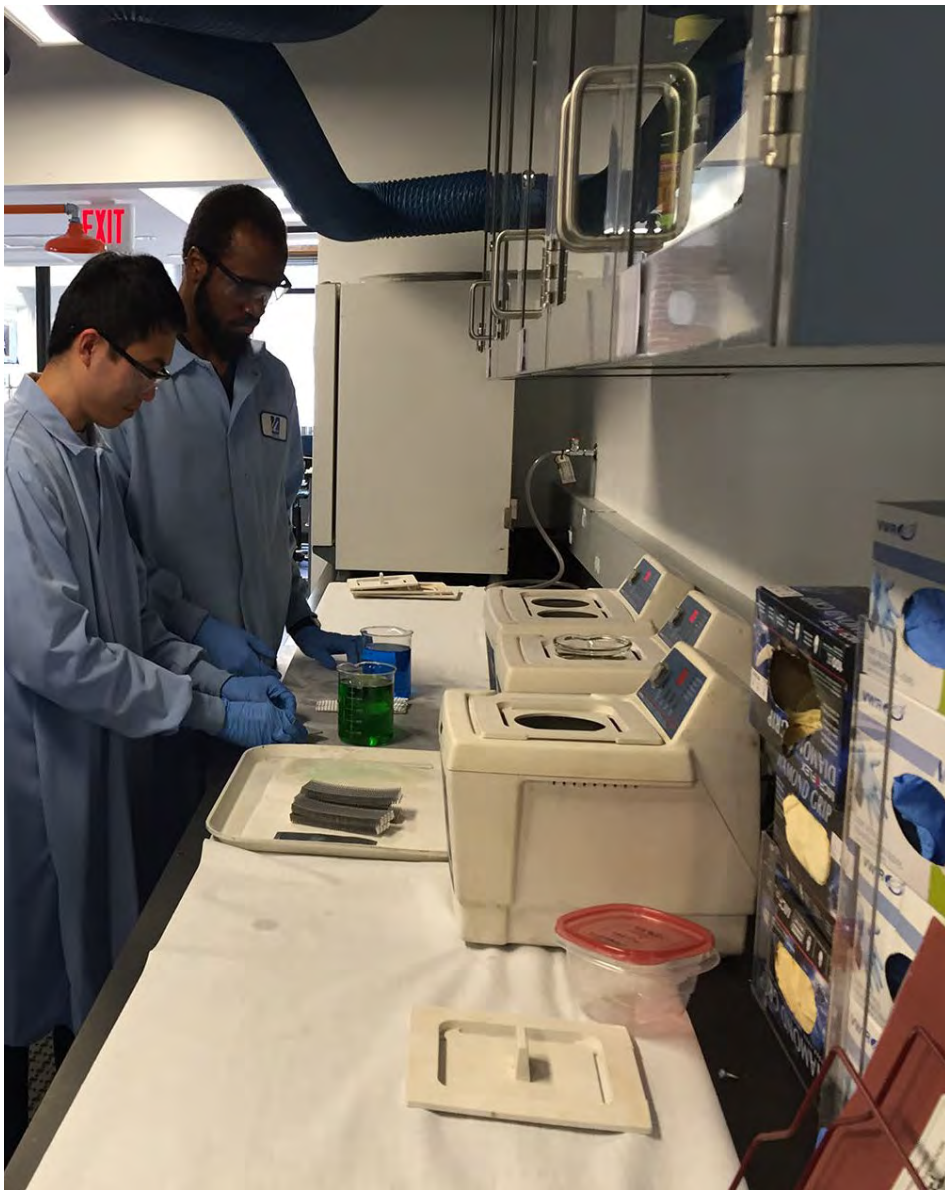
## 5. General manufacturing process

- A. What they make and why
- B. Whose involved with logistics
  - i. Internally
  - ii. Externally
- C. Ask about the cleaning processes and what they have tried so far
- D. Verify the all chemicals listed on the Test Request Form
  - i. Ask if there are any other chemicals used in their purpose
- E. Do they have a process flow diagram
  - i. TUR Plan available



# 10 Things to do on a Site Visit

6. Collect relevant documents
  - A. Ask for SDSs of all soils and cleaners current, considered, and tried in the past
7. Walk the cleaning line
  - A. Bring your test request form with you as you walk around the facility
  - B. Be aware and make note of chemical containers
    - i. Ask if it wasn't listed and how it is being used
8. Cleaning demonstration
  - A. Ask when they are cleaning
  - B. How long they are cleaning
  - C. Why are they cleaning
  - D. Ask to be shown how they clean the parts
  - E. Ask what happens to the cleaner at the end of use
    - i. How often do they change out cleaner
9. Document IH methods
  - A. Be aware of the personal protective equipment
  - B. Engineering controls
  - C. Potential ergonomic hazards
    - i. gloves, ventilation, lock out tag out, leaning over too much, automation, etc.
10. Final questions
  - A. Be aware of the size of the room and space where the equipment is located
  - B. Age of equipment
  - C. Flexibility of change
    - i. Ask about the capability of mixing blends on site
    - ii. Ask if they have a wastewater treatment on site
    - iii. Ask about cost of current cleaner compared to an alternative
      - a. How much flexibility do they have in pricing increase
    - iv. Ask if they have the support to make major changes (i.e. new equipment, new process, funding to add wastewater treatment)
  - D. Consider upstream changes related to soils and substrate materials
  - E. TURI Next Steps
    - i. Mention the grant program
    - ii. Talk about case studies
    - iii. Discuss next steps
      - a. In the lab
      - b. At their location
    - iv. Follow-up with an email that summarizes everyone's to-do list



Toxics Use Reduction Institute  
[www.turi.org](http://www.turi.org)

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**So no questions, right?**

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