Facilitator's Guide
Site Assessment and Monitoring

Objectives
Monitoring and Assessment

Upon completion of this class participants will be able to:

- Conduct an inspection and assessment for mold
- Measure for moisture using a meter and interpret data
- List at least 2 sampling techniques

PREPARATION

Conduct your own site assessment and hazard analysis of the structure and grounds using one of the checklists. Decide how you will deploy groups during site assessment based on time allotted and size of the building.

Obtain moisture meters, table top demonstration and power point presentation.

INTRODUCTION (Recording answers on flip chart) **(5 minutes)**

ASK: Why do a site assessment?
To determine if mold is present and to what extent

ASK: Has anyone conducted a site assessment. If so, briefly describe what you did.

ASK: Has anyone had done mold monitoring or sampling or seen it done?

ASK: What type of monitor/sampling technique was used?

ASK: What would you do first during a site assessment?
Visual inspection, monitoring

ASK: What do you think you will need to do an assessment?
Checklist, map, monitors, sampling equipment, camera

(You'll refer to these answers during the report back)

PRESENT POWER POINT SLIDES. **(10 minutes)**

Stop on slide 11 Group Activity

DEMONSTRATE USE OF MOISTURE METERS **(5 minutes)**

Caution is needed when using meters with probes. Do not force them into surfaces. They should only touch the surfaces.

GROUP EXERCISE **(30 minutes)**

- Break the class into groups for the assessment.
- Give each group a clipboard with group activity sheet and a moisture meter(s).
- Direct each group to conduct a site assessment for mold, moisture, water damage, etc.
- Describe the designated areas and any restricted areas.
- Announce the report back time and tell them to be prepared to discuss their findings.

Explain the hand out:

Tell them that in there manual there is a page for them to take with them to write down the information that they find when they do there walk around inspection. Have one person take notes. When they report back they can do it as a group or have one person from there group give the report back of what they find.

GROUP ACTIVITY

Monitoring and Assessment - MOLD

Date:_____

Area:_____

Notes: _____

_____

Area:_____

Notes: _____

_____

Area:_____

Notes: _____

_____

Area:_____

Notes: _____

_____

REPORT BACK (Recording answers on flip chart) **(30 minutes)**

ASK one group to report back on a designated area.
Continue with another area by another group until all areas have been covered.

ASK group to report other findings.
Fill in information as needed. Ensure they covered areas like exteriors, drains, gutters.

ASK: Where should you monitor?
Anywhere suspected, within limitations of the monitor. Possibly post-remediation.
Note: some areas may have nails, studs, ducts, etc. that will give false positive results.

ASK: Does it matter what the building material is?
Yes. Material like concrete, plaster, some woods may be difficult to monitor.

Topics to include in report back:

- Assessment checklists (mention these are included in the Resource Manual)
- Damage Assessment placards (included in the Resource Manual)
- Structural damage (dry rot, weakened beams, etc.)
- Recap questions and answers given during introduction (flip chart)

CONTINUE AND CONCLUDE POWER POINT PRESENTATION (20 minutes)

Slide 12: sampling why if you would

Slide 13: doing an inspection. Even in an inspection you should be wearing PPE

Slide 14: Flooded Basement

Slide 15: Mold Sampling….go over quickly

Slide 16: Air Sampling:
Explain difference between microscope and culture. Generally, upon receipt at the lab, samples are placed in solution. One portion is stained and placed under a microscope to determine the type of mold. It is stained

to aid in viewing under fluorescent light. The other portion of the solution is put into a dish that contains the nutrient (typically agar media) needed to grow. This is called a culture. After incubation, the organisms in the solution that are alive will form visible colonies that can be identified and counted.

Slide 17: Out door monitoring. If you want to compare what mold is outside to inside then this would be the monitoring you would do. Why? Only to see if the mold is the same outside and inside. If they are that can give you some ideas if the mold is being tracked in or not.

Slide 18: Setting up air monitoring in a house

Slide 19: agar plate

Slide 20: agar plate with colonies of mold growing

Slide 21: Tape Sampling: Don not let tape fold upon itself. Place inside of clean baggie, sticky side against side of bag or against glass slide. More work gathering tape samples, but can give you viable and non-viable.

Slide 22: placing tape on a slide. Ask, what about the PPE that is being worn.

Slide 23: Swab Sampling: Place swab inside of holding tube. Submit to laboratory or compare to color on chart that come enclosed in kit. Good for vents to swipe and test.

Slide 24: picture of swab testing in vents of a furnace.

Slide 25: Bulk Sampling: Can be destructive because you are removing part of the structure as a sample (drywall, swatch of carpet, etc.).

Slide 26: Check under carpet in corners. Water can set up under the carpet in corners were rain comes in windows or it leaks down a wall.

Slide 27: Basement corners where water leaks through and sets up.

Slide 28: Measuring Moisture in Air. Go idea to have something either in your home, work place and when you do remediation for measuring relative humidity.

Slide 29: new cameras for taking a picture of the wall for water, cold, heat. Infrared camera is a quick way to find water leaks. Very costly right now this camera cost 14,500.00 dollars.

Slide 30: The purple areas in this infrared image show moisture inside a wall and ceiling. This Camera can distinguish between temperate differences of less than 1/20 degree F.

Slide 31: Different things to an infrared camera can find.

Slide 32: Recap of what mold needs to grow.

Slide 33: Any questions.

SUMMARY **(5 minutes)**

- Many kinds of mold, many monitoring and sampling methods available
- Eyes and nose will be some of the most sophisticated equipment they will use
- Highlights of an inspection – *visual, monitoring, recording findings*
- Inspection vs sampling - *Inspection first. If mold is visually present, no need to sample*
- You may need a combination of detection methods to confirm the presence of mold - *Not all molds respond to all types of sampling methods*
- List sampling techniques - *Bulk, air, surface (tape & swab)*
- Resource Manual contains helpful information (checklists, sampling info, etc.)