SAFESTART ENVIRONMENTAL Phone: (847) 913-9200

SUGGESTED PROTOCOL FOR SMALL PARTICLE CLEANING (SPC) AND PREPARATION OF HOME PRIOR TO AIR TREATMENTS

Listed below are suggested guidelines for preparing the home for Small Particle Cleaning of surfaces of the home and content and for cleaning all particulate and contaminating materials from the air of the home.

In most cases, as in the items below, we recommend these steps be followed as described. In some cases we recommend alternate methods and perhaps for other professionals to be involved in the process. Decisions in these matters are left to the client/patient based on the guidance of their physician and IEP expert, relative to the degree of severity of their condition and conditions in the home. Of course doing the ultimate is always the best, but may not in all cases be required. It is our opinion that these are practical and tried solutions, which may be tailored to an individual's needs.

A large degree of the cost of the cleaning may be minimized by the patient performing levels of preparation themselves. In some cases, the patient may be too compromised to do the work or not be physically able.

In some cases, it is our opinion, with the physician's authorization, that the patient may do some of this preparation work themselves, provided they protect themselves with a grade N95 respirator over nose and mouth and wear Nitrile gloves while performing the work.

The sequence in which these preparation steps take place is important in the overall quality of the work. We will present information in the sequence we feel thing should be performed.

The general steps in this process are:

1. Ideally, remove the majority of content from the home to another location such as a pod outdoors.

2. Perform the cleaning on the interior structure of the home using proper protective methods of surfaces and then proper methods of removal of contaminants without distributing particulate into the air.

3. Cleaning the content piece by piece as it is brought from the pod back into the home.

In many cases these general steps may need to be modified.

RECOMMENDED CLEANING METHODS:

The first grouping of steps below may be performed in any order:

1. Regarding framed wall hangings such as artwork, photos, etc.:

Remove the hangings from the walls. Wipe the frames with a solution of one part grain alcohol to 7 parts water, with a terry cloth rag and then a wipe down with a clean Swiffer when dry, two times with two separate dry Swiffer cloths.

Grain alcohol goes by the name Everclear in liquor stores. If not available you may use low cost vodka. Wear a P100 mask over nose and mouth and ventilate if necessary.

Use cloth such as terry cloth in small sections. DO NOT re-dip the cloths in solution but discard when dry in plastic bags.

If there is glass over the artwork, perform the same wipe downs on the glass

If there is no glass, we recommend a light dusting with compressed air from a can such as that used to clean dust off of computers.

We recommend that the framed hangings be wrapped in plastic and sealed and placed in another area such as in the garage temporarily

2. Lamps and lampshades:

The bases of most lamps are nonporous materials. Wipe the bases of the lamps with the solution and methods described above and let dry

If the lamp shades are pleated and/or inexpensive, dispose of them by placing in a heavy gauge plastic bag which should be tied prior to removal for disposal.

If the lamp shades are desired to be kept, treat in the garage or outdoors by spraying with a light spray of compressed air as described above. If the patient's physician considers the patient to be at a higher level risk, consider disposing of the lampshades.

3. Knick-Knacks:

Dealing with knickknacks by the patient will save a large degree of costs that the remediator would charge to deal with these time-consuming procedures. We recommend that patients deal with these items themselves.

These items may be set out independently on tables or furniture, or they may be grouped in large numbers on shelves and furniture such as a hutch.

If they are all non-porous they may be cleaned in a dishwasher.

Our first recommendation is to go through these knick knack items in the home and categorize into those, which you are **willing** to part with, those which you **may** be willing to part with, and those which you **need to keep**. After you have disposed of the items you are willing to part with, go through the second category with the same thought and decide if any of those can be disposed of. What is left in the third category are items that need to be wiped down with the solution wipe and two-step wiped with two separate dry Swiffer cloths which then need to be disposed of as described above. We then recommend that those items be wrapped and stored in a container with a cover and the majority of movable content to another area such as the garage.

We recommend performing the solution wiping process on the shelves and exterior of the furniture or hutch that they were sitting on to begin with. We recommend having the remediator seal the opening to the shelves of the furniture with painter's grade plastic sheeting with blue painters tape.

4. Kitchen Cabinets:

We recommend that the patient remove items from the kitchen cabinets such as dishware, glasses etc. and run them through the dishwasher. While that is going on, we recommend that the shelves and interior of the cabinets be wiped down with the solution and two step wipe described above.

Other items in the kitchen cabinets should be taken out and either wiped down as described above or be taken to a garage or outdoors where they may be blown off with compressed air and then put in containers and sealed and kept out of the home until after treatments have been completed. The remediator, as part of their work, should then wipe down the exterior and exterior doors of the cabinets.

5. Books:

Go through the books and if there are any no longer needed or desired, we recommend that they be disposed of as described above.

If the books have paper covers, we recommend that they be either disposed of or wiped down with the solution wipe and two-step wipe treatment described above. If the books do not have paper covers, perform the two-step Swiffer wipe down described above. We recommend HEPA vacuuming the edges of the book or air washing while the pages are compressed together. This should not be done inside the home

Assuming the books are kept in a bookcase, or a shelf, we recommend that after the books have been cleaned, that they be put in a sealed container and moved out of the home during treatments. We then recommend that the shelves in bookcases be wiped down and Swiffered as described above.

6. Appliances:

Wipe down the exterior of appliances such as washer, dryer, refrigerator, dishwasher, etc. with the two-step treatment described above.

Regarding clothes washing machines, we recommend having a service person out to replace the rubber gasket ring on frontloading machines, and to wipe clean any mold from surfaces around the drum. Otherwise as clothes are brought out of the machine and mold transfers to them into the dryer these particles will get disturbed into the air.

If refrigerators that are not built in they can be moved out without damaging flooring or breaking icemaker lines, we recommend that the patient have a service person out to move out the refrigerator so that the floor and walls in that area can be properly wiped down and cleaned.

7. Bedding:

If pillows are common and inexpensive, we recommend disposing of them as described above and replacing them later. If it is decided they be kept, they should be HEPA vacuumed.

We recommend that sheets and pillowcases be washed in the clothes washer with a cup of laundry borax as well as detergent.

Comforters and heavy blankets should be sent to the cleaners for washing or cleaning.

Mattress surfaces should be HEPA vacuumed.

8. Pianos:

If pianos have an air opening to the internal strings and cords, an expert in this field should be utilized for cleaning the interior of the piano; otherwise the exterior surfaces can be wiped with the two-step treatment and dried

9. Furniture:

Upholstered furniture should be HEPA vacuumed or air washed outside with compressed air from a portable compressor.

Hard surface furniture should be wiped with the alcohol solution and the Swiffer two-step process described above.

10. Electronics:

We recommend that the patient disconnect all the wiring from the electronics such as TVs, computers, copiers, stereo equipment etc. The wiring should be wiped down and put in a container to be sealed and moved to another area until treatments have been completed.

Any electronics on tabletops should be moved off of them so the tabletops can be wiped down as described above.

We recommend that the exterior of electronic components be wiped down as described above. If the components generate a large degree of heat, we recommend that an electronics cleaning firm pick up the equipment to have the interior of the electronics properly cleaned so that the generation of heat will not emit contaminants into the air when utilized. The performance of this should be discussed with the expert/physician based on the results of testing in the home and the medical condition.

In some cases compressed air outdoors can remove dust from inside the electronics.

11. Windows and window coverings:

If there are inexpensive ready to hang blinds on windows or inexpensive draperies or curtains, we recommend disposing of them as described above. If the drapes or curtains are washable or dry cleanable, and desired to be, we recommend that they be washed with borax and detergent or dry-cleaned. We find it preferable to not have them hanging during the treatments to the air.

If there are attached valences of fabric over the window tops, we recommend that they be HEPA vacuumed and then covered and sealed with painters plastic to the walls.

If there are more expensive custom blinds over windows, we recommend that they be carefully wiped and cleaned, or utilize a company that would pick up the blinds and have them cleaned ultrasonically and brought back later for reinstallation.

The remediator will do a cleaning of the window frames and windows

12. Closets and Clothing:

Depending on the results of testing in the home and opinions of the IEP and the physician, there are different levels of dealing with closets and clothing.

In most cases we recommend that the patient remove boxes and items from shelves in the closet and perform the wipe downs and the moving of those items either wrapped or in plastic covered containers to another area such as the garage.

If there are plastic coverings over clothing from previous cleaning, those should be kept in place.

Regarding shoes, we recommend that they be wiped down depending on the type of material they are made of. In some cases we might recommend HEPA vacuuming or blowing off with compressed air.

We then recommend that the remediator set up a fan in the closet from the back end, blowing air outside the door of the closet. While this is going on we recommend that the remediator use compressed air to blow dust and materials off of the clothing and other items off of those items and out of the closet.

We then recommend the remediator seal off the entry to the closet with six mil plastic sheeting and painters tape until air treatments have been performed.

The next several items should be performed after the above items have been performed in sequence below:

13. Walls:

If it is possible for the patient to do it, we recommend that they dust the walls or use air washing in the home and then using a damp mop swifter on a pole with the water and grain alcohol solution, wipe down the walls to remove films and contaminants from the surfaces.

14. Carpeting and floors:

If there is carpeting, especially in the basement, we recommend that it be removed in containment after being sprayed with water in a process described to the remediator to be performed in a manner to not generate quantities of contaminants into the air. We then recommend the remediator perform a wash and rinse on the floor underneath. A discussion with the air quality expert is needed in determining the need for this.

In general, we prefer the homes of patients with these conditions to not have carpeting. When carpeting is walked on, dust and other materials are kicked up into the air. If carpeting is to be kept, we recommend treating it as follows prior to treatments to the air:

HEPA vacuum the carpets. This will remove certain levels of particulates from the carpet, however smaller particles than HEPA size will be kicked out into the air, which will be treated by the subsequent treatments to the air, which will follow. In many cases we recommend disposing of carpeting. If Aerosolver fogging is not performed do not HEPA Vacuum but get guidance from your IEP.

Vacuum and then perform the solution and two-step wipe on hard surface floors under the carpeting that was removed, following the processes described above.

Now cover all the floors and carpets in the home with heavy gauge plastic sheeting or Ram board, overlapping junctions and taping together. Lay a lighter level of plastic sheeting such as painters plastic over the heavier plastic below which may be removed gently and not disperse any contaminants that come out from the air treatments, after the plastic is lightly sprayed with a light film of water and then gently removed and placed in heavy bags for proper disposal. 15. The remediator will cover all furniture and items in the home including windows, etc. with a painter's grade plastic sheeting and seal with painters' tape.

16. Have the ductwork in the home cleaned by a professional firm that follows the protocols of the National Association of Duct Cleaners. Alternately, plastic duct liners can be installed by an HVAC company.

17. Remove the furnace filter in homes that have a forced air HVAC system during the fogging process.

At this point, the home is ready for air treatments that the remediator will perform.

After air treatments have been performed, a new furnace filter should be put in.

Afterward, the remediator should tape heavy gauge plastic disposal bags laid flat, to various surfaces of walls and floors on different levels of the home. These should be left there for 10 days to 3 weeks to collect new dust for post testing. We recommend post testing HERTSMI-2 dust test as well as an outdoor sample to compare against.

Larry Schwartz

Larry Schwartz CIEC, IH, BSME, Member IAQA



Cleaning Belongings of Mold Exposure;

In response to the specific question of: "how to clean non-porous (NP) items," consider: 1. Removing these NP items out of the suspected "contaminated" area first (if possible)

2. Perhaps outside (weather permitting), any NP item should be able to be wiped down in a 2-step process:

a. Damp wipe using dish soap (the soap you normally use) and water (5 drops of soap/1 quart of water) using a clean terry cloth, and then wring out the cloth before wiping down the NP item. Wipe the surface from (at least) all 4 directions (top to bottom, bottom to top, left to right, right to left). You should not be leaving any soap/water residue/film on the NP item. If you are, you may be using too much soap, or soaking the NP item too much.

b. Once completed, dry wipe the same NP item using a dry and unscented Swiffer cloth. Wipe in the same pattern described above.

Note: somewhat NP or mostly NP items such an antique furniture may be more difficult to wipe if any gaps/cracks or unfinished wood is present. In these cases, sometimes HEPA vacuuming of these surfaces may be your next best option (installing the vacuum canister outside). Another alternative is to use compressed air to blast the items—outdoors, starting from upwind and working your way downwind to ensure items are not re-contaminated.

3. This approach is what we use for most NP items that we feel may have been "exposed" to a "mold-contaminated" environment BUT that has no actual mold growth on it. If you suspect mold growth on the item, it may be easy to remove using the same technique described above, though if such mold growth has been identified on a "relatively" NP item such as a finished piece of wood, you may consider carefully sanding down the item first, cleaning it, and then refinishing it as necessary. Let's hope you don't need to take it that far as it can lead to a complicated and lengthy discussion.

4. Now that your items have been wiped, you would ideally want to move them either into the new location (assuming you feel this new location is not "contaminated"----another topic/thread), or store them in a location that is protected from excessive moisture or general exposure (e.g. leaving your cleaned NP item in the same environment you feel is contaminated).

Check to make sure the back of the artwork has no porous materials (fabric? paper?). Perhaps such materials could be discarded without destroying/damaging or negatively affecting said items. If damage is a possibility, you may need work with a cleaning company that specializes in contents cleaning. CRDN is an example. <u>https://www.crdn.com/</u> Again, let's hope that's not the case for you as there are always things to worry about such as what specific method of cleaning/chemical use does CRDN use. Will that product/process affect you?

From Michael D. Schrantz, CIEC, CMI, ABI, BPI-BA/EP Indoor Environmental Professional Environmental Analytics, LLC <u>Mike@EnvironmentalAnalytics.net</u> (520) 290-6653V/(520) 721-6851 P.O. BOX 57605 Tucson, AZ 85732