

Gilsenan, Michael

From: Radhakrishnan, Krish
Sent: Friday, January 10, 2003 2:49 PM
To: Gilsenan, Michael
Subject: FW: HVAC Cleaning



comments1.doc



comments2.doc

-----Original Message-----

From: Wilson.EricJ@epamail.epa.gov [mailto:Wilson.EricJ@epamail.epa.gov]
Sent: Friday, January 10, 2003 2:34 PM
To: Radhakrishnan, Krish
Subject: HVAC Cleaning

Krish,

Attached are John Tancredi's questions/comments on the cleaning procedures.

(See attached file: comments1.doc) (See attached file: comments2.doc)

Comments on Exhaust System Cleaning Procedures.

General 1. Is there a measure for sufficient negative pressure or is sufficient as defined in item 4. Of the procedures?

Some duct cleaners use vacuum collection systems that are not HEPA filtered. Specify HEPA filtered vacuum collection system and loose the commentary about asbestos contractors and duct cleaners.

Is "adequate to collect all dust" a visual observation?

General 2. Containments are not addressed for exhaust fans/mushrooms similar to the A/C units procedures. Is this because they are outdoors? If so we should be consistent. What constitutes a "containment"? Is this similar to a "tent"? Must the containment be exhausted and will it be air tested? Although there are not many horizontal ducts longer than 6 feet, this would apply to any location that we use to access the riser for cleaning (ie: bathrooms and kitchens).

General 3. What are "special measures"? Insert note: Refer to item 5. under procedures.

Procedures 4. Field conditions and stack effect may require that we exhaust from the roof of highest point of the riser, rather than the lowest point. If it is necessary to exhaust from the roof on vertically feeding systems or as mandated by access points, cleaning should start from the grills toward the fan unit. It is more appropriate to specify that cleaning will always start and work toward the vacuum collection system rather than a component of the exhaust system.

Procedure 5. Delete: through a window. This does not apply if exhausting from the roof. I have been told by equipment manufacturers that it is not recommended to run two vacuum collection systems in tandem, as it creates a backpressure that can damage the equipment or cause gasket leaks. DOP testing should be by others (Athenica).

Procedure 8. Removal of mushroom will be out of sequence if exhausting from the roof.

Procedure 10. Sequence may be from bottom up. SSC recommends cleaning the grills and branch ducts before the riser to prevent recontamination of the riser.

Procedure 10. Some toilet vents are fabricated of sheetrock. Nylon brushes should be used. Exhaust ducts should be modified as appropriate.

Procedure 12/13. SSC recommends removing and cleaning the supply air grills, fire dampers and branch ducts before cleaning the main supply duct as cleaning of these areas after cleaning the main riser may lead to recontamination. Again we should work from the furthest point toward the vacuum collection system. This procedure will require two accesses to the apartments. The current procedures require 3 accesses to the apartments. As poly is removed from any exhaust diffuser, the velocity should lift any light debris that may have dislodged during the riser cleaning. Regardless of which procedure you choose it will ultimately be field modified.

A/C and Ventilation System Cleaning Procedures.

- General 1. Is there a measure for sufficient negative pressure or is sufficient as defined in item 4. Of the procedures?

Some duct cleaners use vacuum collection systems that are not HEPA filtered. Specify HEPA filtered vacuum collection system and loose the commentary about asbestos contractors and duct cleaners.

Is "adequate to collect all dust" a visual observation?

- General 2. Does this apply to outdoor units such as the roof mounted A/C's at 333 Rector Place? What constitutes a "containment"? Is this similar to a "tent"? Must the containment be exhausted and will it be air tested? Air handlers with heavy contamination that are in common areas, such as the fresh air ventilation system in the laundry room of 333 Rector Place, should be cleaned in some type of "containment". This "containment" could be placed under negative pressure and have poly drop cloths protecting horizontal surface, but I believe full prep is overkill. Additionally this entire space will be HEPA vacuumed and wet wiped as part of the common space cleaning. I **strongly** recommend adhering to DEP clearance criteria prior to reoccupancy.

- General 4. This implies that any access point used to clean the riser (kitchen or bathroom inside an apartment) must have a temporary containment built? Is this the intent? If only one register is open during whipping or brushing activities (access to riser from apartment vent), and a 3000 CFM vacuum collection system is being used, the face velocity will be in excess of 3000 FPM based upon the dimensions of the grill (less than 1 sf). The offending dust is very light. With this velocity, what is the likelihood of dust blowing back from the duct? If containments are required will air testing be employed? Is the containment under negative pressure?

- General 5. What are "special measures"? Insert note: Refer to item 5. under procedures.

- General 6. SSC will provide additional pricing or modify pricing to include encapsulation.

- Procedures 2. Although I agree with the air intake or return side of the unit procedure, the supply side procedures may not be appropriate. If it is necessary to exhaust from the roof on vertically feeding systems or as mandated by access points, cleaning may start from the grills toward the fan unit. It is more appropriate to specify that cleaning will always start and work toward the vacuum collection system rather than a component of the HVAC system.

- Procedure 3. If the smoke detectors are applicable, it should be the responsibility of building management to shut down the system and coordinate with FDNY.

- Procedure 5. Delete: through a window. This does not apply to outdoor units and there are no windows in most basements making it impossible. I have been told by equipment manufacturers that it is not recommended to run two vacuum collection systems in tandem, as it creates a backpressure that can damage the equipment or cause gasket leaks. DOP testing should be by others (Athenica).

- Procedure 6. Painters tape is preferable especially for wall mounted grills.

- Procedure 7. Is containment required for outdoor/roof mounted units or units that are not in spaces accessible to the public? Define "containment".

- Procedure 8. Some toilet vents are fabricated of sheetrock. Nylon brushes should be used. Exhaust ducts should be modified as appropriate.

- Procedure 10. SSC does not feel it is necessary to wet clean thermal coils for the purpose of this cleaning and does not recommend wet cleaning of coils on outdoor units during the winter months.

- Procedure 11. Does not address branches that are greater than 6 feet. When using whips, brushes etc., is a containment required?

- Procedure 14. SSC recommends removing and cleaning the supply air grills, fire dampers and branch ducts before cleaning the main supply duct as cleaning of these areas after cleaning the main riser may lead to recontamination. Again we should work from the furthest point from the vacuum collection system.

- Procedure 15. All filters should be removed and disposed of without discrimination.