SUBJECT: Dust Control Plan Policy and Plans for Renovations	REFERENCE # 1	
CLINTON REGIONAL HOSPITAL	PAGE: 1 OF: 16	
DEPARTMENT: HOSPITAL WIDE	EFFECTIVE: 1/1/2023	
APPROVED BY:	REVISED: 12/30/2024	REVIEWED: 4/15/25

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APPENDICES

TAB I-RENOVATION/CONSTRUCTION FORMS

SECTION I – PROJECT COORDINATION

A. DESCRIPTION OF WORK

SCOPE: This section specifies administrative and supervisory requirement procedures, conditions and responsibility necessary for coordination of the entire project including, but not necessarily limited to, the administrative and supervisory personnel, planning meetings, progress meetings, pre-construction conference, daily logs, special reports, contingency plans, notifications to other entities at job site and scheduling of access to areas with the owner.

B. INFECTION CONTROL COORDINATION

This section defines the role of the Infection Control Personnel (ICP) pertaining to new construction, remodeling or maintenance activities.

The Clinton Regional infection control personnel shall be a member of the construction planning group. This will ensure that newly constructed and remodeled areas meet the infection control criteria that have been set forth in the facility.

The (ICP) shall conduct an Infection Control Risk Assessment (ICRA) in order to identify the areas that special precautions must be adhered to during construction, remodeling and maintenance activities. This ICRA will provide a pro-active approach to the prevention of infection through architectural design and facility maintenance as well as specific needs of the patient population served by the facility.

When construction, remodeling or maintenance activities are planned for any area in the facility, the ICP shall be contacted prior to work beginning, and provide directions as to the precautions required due to the areas this work will be performed in.

C. ADMINISTRATIVE AND SUPERVISORY PERSONNEL

Contractor: The Contractor shall have the following duties:

DUTIES of Contractor

1. GENERAL: The duties of the contractor include, but are not necessarily limited to the following:
2. Coordinate the work of all subordinates and material suppliers so as to meet the requirements of the Dust Control Plan.
3. Supervise the activities of every phase of the renovation work taking place on the project in conjunction with the air monitoring supervisor/consultant/owner.
4. Establish lines of authority and communication at the job site. Maintain direct contact with workers within the contained work areas including use of electronic means if necessary.
5. The contractor shall be present on the job at all times when work is being performed and shall be responsible for compliance with all aspects of the dust control plan.
6. The contractor shall coordinate the scheduling of the work with the owner's representative for access to work areas and the removal of stored items from the work areas.
7. The supervisor shall coordinate and assist in the preparation of all general requirements including, but not necessarily limited to the following:
    - Prepare and submit all progress schedules and supervise work to monitor compliance with the dust control plan.
    - Maintain an up-to-date project record documents file.
    - Enforce all safety requirements.
    - Construct, maintain and monitor all temporary facilities.
    - Direct and execute a continuing cleaning program throughout renovation, requiring each trade to dispose of their debris appropriately.
    - Conduct final inspection.

SECTION II – DUST CONTROL

A. GENERAL

1. Dust control is critical in all hospital areas. Construction activities causing disturbance of existing dust or creating new dust must be conducted in tight enclosure cutting off any flow of particles into patient areas.
2. Before any construction on site begins, all workers on site shall attend a mandatory meeting held by the prime contractor for training and instruction on precautions to be taken. Attendance at this meeting shall be documented and submitted to the Director of Facilities Management.
3. Temporary construction barriers and closures above ceilings, described in detail Section III, shall be dust tight.
4. Removal of debris shall be done during work hours and shall be in tightly covered containers, described in Section IV.
5. Negative air machines, described in Section VII, shall provide air flow into the construction area not less than 100 FPM at the barricade entrance with doors fully open. Negative air machines shall run continuously.
6. Walk off mats (tacky) are to be used at barricade entrances, vacuumed or changed as often as necessary to prevent accumulation of dust.
7. Any dust tracked outside of the barrier shall be removed immediately, as specified in Section IV. All cleaning outside barriers shall be by HEPA-filtered vacuum or other method approved by the hospital representative. Wet mopping should be used as necessary to remove dust.
8. Any ceiling access panels opened for investigation beyond sealed areas shall be replaced immediately when unattended; Refer to Section III.
9. Block off all existing ventilation ducts within the construction areas. The method of capping ducts shall be dust tight and withstand airflow.
10. Whenever openings are made into existing ceilings, in the ICU/CCU or occupied patient areas, provide portable enclosure enclosing ladder and selling off opening, fitted tight to ceiling.
11. Removal of construction barriers and ceiling protection shall be done carefully. Vacuum and clean surfaces free of dust before and after the removal. Cleaning of surfaces shall be performed using a hospital approved disinfectant.
12. All polyethylene shall be fire retardant type.
13. All vacuuming shall be performed with a certified HEPA-filtered vacuum.
14. The hospital will monitor negative pressure and work procedures in vicinity of project. Whenever safe levels are exceeded. Contractor will be notified to correct conditions immediately to avoid work stoppage.
    a. All work shall be stopped on the project when negative pressure cannot be achieved and/or maintained.
    b. The contractor shall take immediate action to correct all deficiencies.
    c. The contractor shall bear all costs associated with delays caused by failure to maintain correct conditions.
15. Before any demolition or construction begins, complete fields review of all dust control policies will be conducted at a pre-construction meeting. A check list will be filled out and signed by the owner's representative and the contractor confirming the area is ready for work to begin. The hospital staff in the area subject to renovation should be informed of renovation operations at least 48 hours in advance.

END OF SECTION II

B. PRE-CONSTRUCTION CONFERENCE

Prior to the start of any work the constructor will arrange a pre-construction conference at the project site. Those in attendance will be the owner's representative, the contractor and any other entities concerned with the renovation work.

C. PROGRESS MEETINGS

For projects with an expected duration of two months or more, the owner's representative will schedule weekly or more construction progress meetings at the project site or other suitable location. Those in attendance will be the owner's representative, the contractor superintendent and any other entities the contractor may deem advisable.
The purpose of the meetings will be to discuss all matters pertinent to the dust control plan and other project-related items.

D. SPECIAL MEETINGS
For particular phases of the work, or for unforeseen or emergency conditions, special meetings may be called by the Consultant or the Contractor (subject to the approval of the owner). Personnel attending these meetings will be as required for the purpose of the meeting.

E. CONTINGENCY PLAN
GENERAL: Prepare a contingency plan for emergencies including fire, accident, power failure, negative air system failure, supplied air failure of any other event that may require modification or abridgement of decontamination or work area isolation procedures. Include in the plan specific providing of adequate medical attention in the event of an emergency.

END OF SECTION I

SECTION III – CEILING ACCESS IN OCCUPIED AREAS FOR DEMOLITION WORK

A. POLICY

The purpose of this policy is to protect patients from being exposed to dust particles. Ceilings in the hospital must be secure at all times. If access into the ceiling in occupied areas is required, procedures described herein must be followed.

B. GENERAL DIRECTIVES

1. Contractor shall notify the hospital representative, who will notify the particular area of the hospital concerned. Work requiring access to the ceiling is about to begin, at least 48 hours in advance.
2. Inform head nurse or department manager so patient room doors near ceiling work will be kept closed while work is in progress.
3. The hospital representative should be contacted for all ceiling access problems.

C. DEFINITIONS

1. A minor access is defined as visual observation or minor adjustments or other activity that does not disturb dust.
2. A major access describes any other access not defined as minor.

D. PROCEDURE TO BE USED FOR DEMOLITION ACTIVITIES

1. A portable enclosure unit shall be used for a single access.
2. The portable enclosure must remain in place until the ceiling is secured (all accesses closed) in ICU/CCU or any patient care areas.
3. When the worker leaves the work site, the ceiling access must either be completely closed or protected by an appropriate barrier.
4. In patent care areas, portable enclosures must be removed, and ceiling tiles replaced at the end of each day.
5. Thorough cleaning of surfaces which become exposed to dust must be accomplished before leaving the job site. The cleaning can be accomplished by the use of a HEPA-filtered vacuum cleaner or damp mop using a hospital approved disinfectant.
6. Construction workers should ensure (i.e., Vacuum dust from clothing) removal of dust/debris from clothing. They should have and/or wear coveralls that can be removed prior to entering patient care area, and leaving construction area.

E. PORTABLE ENCLOSURE

1. Prefabricated portable enclosure units shall be 5 feet x 3 feet as manufactured by Fiberlock Technologies, Inc., or equal, consisting of #6440 heavy duty adjustable frames, #6441 vinyl enclosures and # 6443 wheelbase platforms.
2. Enclosures shall be spring loaded to provide tight seal at ceiling.
3. Vinyl panels shall be fire retardant.

END OF SECTION III

SECTION IV – CLEANING

1. Thoroughly clean areas and spaces where work is performed or used as access to work. Thoroughly clean piping, conduit and similar features before finishing is applied. Restore damaged pipe covering to its original condition.
2. Walk off mats (tacky) placed at both sides of barricade/entry must be changed as indicated. Wet mopping should be performed to remove dust tracked onto hard finished flooring.
3. Removal of debris shall be done daily. Transport debris is tightly sealed, covered, rubber tied containers. Containers shall be fitted with clean polyethylene covers, completely sealed at perimeters by wire typing or taping. Before leaving the construction area, all containers shall be wiped clean to prevent tracking of just. Whenever possible, removal of debris should occur, minimizing use of elevators during the lowest period of activity.

END OF SECTION IV

SECTION V – TEMPORARY UTILITIES

A. TEMPORARY CONSTRUCTION FACILITIES

1. Enclosure: Provide temporary enclosure where indicated and where reasonably required to ensure adequate workmanship and protection from weather. Work area enclosure barriers shall be full height to structure, non-combustible construction, with minimum 2" gypsum board both sides with 3 - ½" R11 insulation batts to reduce noise. Use 3" wide tape to tightly seal top and bottom to prevent spreading of dust to occupied areas.
   Barricade doors shall be 3'0" minimum width, solid core wood with frame and hardware, including closer, tightly weather-stripped to prevent flow of dust. Locate a directed and swing into construction area. Keep barriers locked outside of working hours. Obtain the hospital representatives' approval of exact location and details of barrier construction. Materials for barricades must be precut in unoccupied areas. The outer surfaces of barricade shall be finished painted. Provide entrance vestibules as detailed. Provide walk off mats (tacky) inside vestibule.
2. At perimeter of work areas, between finish ceiling and upper concrete slab, provide rigid non-combustible foil faced insulation board barriers to seal off patient areas from work areas. Cut to fit around all existing utilities and seal around all penetrations.
3. Enclosure outside work are: Whenever demolition work is necessary outside of the construction barricades, including spaces above furred ceilings, space where work is being done shall be contained with a full height polyethylene sheet barrier minimum 4 mils thickness, tightly taped at all edges and along all seams. Provide overlapping flap at least 2 feet wide for access.
4. All work performed outside the construction barricade, including all work in corridors and lobbies shall be scheduled in advance with the hospital except where specified otherwise. Ensure the IC practitioner is informed before work is begun.
5. At no time shall construction equipment or material be stored outside the construction barricade.
6. Barricades shall be kept in a neat, clean and shut tight condition at all times. Any dust tracked outside of construction area shall be cleaned up immediately. Contractor shall have the necessary manpower and equipment (dust and wet mops, buckets and clean wiping rags) for cleaning fine dust from floors in occupied areas and to keep adjacent occupied areas clean at all times.
7. Access Provisions: Provide ramps, stairs, ladders and similar temporary access elements as reasonably required to perform the work and facilitate its inspection during installation.
8. Where work occurs in occupied areas, the contractor shall be responsible to provide access openings through existing plaster, gypsum board or acoustical ceilings and restore ceilings to original condition after work is complete.
9. Whenever openings are made into ceiling, provide dust tight polyethylene covering, taped in place to completely seal opening until final patching is done.
10. Whenever access panels are opened for demolition work above ceilings, polyethylene shroud around opening and ladder, taped to floor and to ceiling.
11. Negative air pressure: The air within the construction area must be negative with respect to surrounding areas and with no disruption of air systems of adjacent areas. Constant negative pressure within the zone should be monitored with an alarmed device, which must be maintained and monitored by construction personnel. Exhaust from construction air should be directed outside with no recirculation if possible. If the exhaust must be tied into a recirculated air system, a pre-filter and high efficiency filter (95%) should be used before exhaust to prevent contamination of the ducts. Fans should be turned off before opening ductwork and necessary interruptions (e.g., fire drills) should be planned for to minimize risk.

12. All HEPA-filtered negative air machines and vacuum cleaners shall be certified by vendor or suppliers in writing as to proper operation and shall be equipped with gauges for reading filter efficiency.
13. Exhaust hoses from negative air machines shall be flexible steel reinforced heavy duty., Federal Hose Mfg. Company "Ventilation Blower Hose WPC, @ Spiratube or equal positively fastened with metal straps or clamps. Exhaust hoses shall run individually through temporary panels to the exterior of the building; do not tie hoses together.
14. All the above-described items of work shall be completed and operating before any demolition can begin.
15. All vacuuming done in areas outside the containment barriers shall be done using a certified HEPA-filtered vacuum cleaner.
16. All materials used in the temporary barriers shall be non-combustible. Polyethylene shall be fire retardant.
17. Temporary ceilings shall be provided in locations where existing ceilings are removed above public corridors and patient occupied spaces. Provide temporary supports approximately 2 feet on centers and around perimeters of spaces.

B. SECURITY/PROTECTION PROVISIONS

1. Work area enclosure and lockup: at the earliest possible date, secure work area against unauthorized entrance at times when personnel are not working.
2. Coordinate locking devices with the director of security for emergency access and shift inspections.

END OF SECTION V

SECTION VI – TEMPORARY ENCLOSURES

A. POLYTHYLENE SHEET

1. Provide a single polyethylene film in the larges size possible to minimize seams, 4- or 6-mils thick as indicated. The sheeting should be secured to the subfloor above and to the floor. Entrance through the sheeting should be "double flapped" to prevent dust from escaping the area.
2. Provide a flame-resistant polyethylene film that conforms to the requirements set forth by the National Fire Protection Association Standard 701. Small-Scale Fire Test for Flame-Resistant Textiles and Films. Provide the largest size possible to minimize seams, 4- or 6- mils thick as indicated.
3. Where a plastic sheet is the only separation between the work and area and the building exterior, provide a translucent, non-reinforced, laminated, flame0resistant polyethylene film that conforms to the requirements set forth by the National Fire Protection Association Standards 701, Small Scale Fire Test for Flame-Resistant Textiles and Films. Provide the largest size possible to minimize seams, 4- or 6- mils thick as indicated.

B. DUCT TAPE

1. Provide duct tape in 2-inch or 3-inch widths as indicated, with an adhesive that is formulated to aggressively stick to sheet polyethylene.

C. CONTROL ACCESS

1. Isolate the work area to prevent entry by building occupants into the work area or surrounding controlled areas.
2. Submit to the Owners Representative a list of doors and other openings that must be secured to isolate the work area. Include on the list a notation if the door or opening is an indicated exit route.
3. After receiving written authorization from the hospital representative, lock all doors into the work area. Cover any signs that direct emergency exiting, either outside or inside the work area, to locked doors. Do not obstruct doors required for emergency exits from work area or from building.
4. Notify owner to modify elevator controls to prevent elevators from stopping at doors in the work areas. This work is to be performed by the owner. Use a dedicated elevator for construction use only whenever possible.
5. Replace passage sets on doors required for exiting from the work area with temporary locksets for the duration of the project. Use entry type locks that are key lockable from one side and always operable from inside the work area. Install locksets with key side in stair tower and escape side toward the work area.
6. LOCKED ACCESS: Arrange the work area so the only access into the work area is through lockable doors located at the personnel and equipment decontamination units.
7. Install temporary doors with entrance type locksets that are key lockable from the outside and always unlocked and operable from the inside. Do not use deadbolts or padlocks.

D. ALTERNATE METHODS OF ENCLOSURES

Alternative methods of containing the work area may be submitted to the owners representative for approval. Do not proceed with any such method(s) without prior written approval of the owner.

E. CRITICAL BARRIERS

Completely separate the work area from other portions of the building, and the outside, by closing all openings with sheet plastic barriers at least 6-mil in thickness or by sealing cracks leading out of the work area with duct tape.

1. Individually, seal all ventilation openings (supply and exhaust), lighting fixtures, clocks doorways, windows, convectors, speakers and other openings into the work area with duct tape alone or with polyethylene

sheeting at least 6-mil in thickness, taped securely in place with duct tape. Maintain seal until all work, including project decontamination, is completed. Take care in sealing of lighting fixtures to avoid melting or burning of sheeting.

2. Provide sheet plastic barriers at least 6-mil in thickness as required to seal opening completely from the work area into adjacent areas. Seal the perimeter of all sheet plastic barriers with duct tape or spray cement.
3. Mechanically support the sheet plastic independently of duct tape or spray cement seals so the seals do not support the weight of the plastic.
4. Provide pressure differentials system as outlined in Section VII – Temporary Pressure Differential System.

F. PREPARE AREA

Clean all surfaces in the work area with a HEPA-filtered vacuum or by wet-wiping prior to the installation of primary barrier.

G. ISOLATION AREA

Maintain isolation areas between the work areas and adjacent occupied building areas in locations shown on the plans. Form isolation area by controlling access to the space in the same manner as a work area. Physically isolate the space from the work area and adjacent areas. Accomplish physical isolation by installing critical barriers in unoccupied space and erecting a second critical barrier a minimum of 3 feet away from the work area.

END OF SECTION VI

SECTION VII-TEMPORARY PRESSURE DIFFERENTIAL SYSTEM

A. MONITORING

Continuously monitor and record the pressure differential between the work area and the building outside of the work area and report to the owners representative on a daily basis.

B. SUBMITTALS

On a weekly basis, submit a summary of the previous weeks recording.

C. QUALITY ASSURANCE

Monitor the pressure differential across the personnel and/or equipment decontamination units with a differential pressure meter. The meter shall be equipped with a warning buzzer that will sound if the pressure differential drops below 0.02 inches of water.

D. HEPA-FILTERED FAN UNITS

Supply the required number of HEPA-filtered fan units to the site in accordance with these specifications. Each unit shall meet or exceed the following requirements:

1. Each unit shall be equipped with a Magnahelic gauge or manometer to measure the pressure drop across filters and indicate when filters have become loaded and need to be changed. A table indicating the useable air-handling capacity for various static pressure readings on the Magnahelic gauge shall be affixed near the gauge for reference, or the Magnahelic reading indicating at what point the filters should be changed, noting cubic feet per minute (CFM) air delivery at that point. Provide units equipped with an elapsed time meter to show the total accumulated hours of operations.
2. The unit shall have an electrical (or mechanical) lockout to prevent the fan from operating without a HEPA filter. Units shall be equipped with an automatic shutdown system to stop the fan in the event of a major rupture in the HEPA filter or blocked air discharge. Green warning lights are required to indicate normal operation, yellow warning lights to indicate too high a pressure drop across the filter (i.e., filter overloading), and red warning lights to indicate too low of a pressure drop (i.e., major rupture in HEPA filter or obstructed discharge). Each unit shall be equipped with an audible alarm that will sound if unit shuts down due to operation of safety systems.
3. Components shall be approved by the National Electrical Manufacturers Association (NEMA) and Underwriter's Laboratories (UL). Each unit shall be equipped with overload protection sized for the equipment. The motor, fan, fan housing and cabinet shall be grounded.
4. Provide filters that are marked with the name of the manufacturer, serial number, air flow rating, efficiency and resistance and the direction of test air flow. Pre-filters that protect the final filter by removing the larger particles are required to prolong the operating life of the HEPA filter. Two stages of pre-filtration are required. The first stage of pre-filter shall be a low efficiency type (e.g., for particles 100 um and larger). The second stage (or intermediate) filter shall have a medium efficiency (e.g., effective for particles down to 5 um). Pre-filters and intermediate filters shall be installed either on or in the intake grid of the unit and held in place with special housing or clamps. The final filter shall be the HEPA type. The filter media (folded into closely pleated panels) must be completely sealed on all edges with a structurally rigid frame. A continuous rubber gasket shall be located between the filter and the filter housing to form a tight seal. Each filter shall be individually tested and certified by the manufacturer to have an efficiency of not less than 99.97 percent when challenged with 0.3 um dioctylphthalate (DOP) particles. Testing shall be in accordance with Military Standard Number 282 and Army instruction manual 136-300-175A. Each filter shall bear a UL586 label to indicate ability to perform under specified conditions.

E. PRESSURE DIFFERENTIAL ISOLATION

1. Isolate the work area from all adjacent areas or systems of the building with a pressure differential that will cause a movement of air from outside to inside at any breach in the physical isolation of work area.
2. Continuously maintain the work area at an air pressure is lower than that in any surrounding space in the building or at any location in the immediate proximity outside of the building envelope. This pressure differential, when measured across any physical or critical barrier, must equal or exceed a static pressure of 0.02 inches of water.
3. Accomplish the pressure differential by exhausting a sufficient number of HEPA filtered fan units from the work area. The number of units required will depend on machine characteristics, the seal at barriers and required air circulation. The number of units will increase with increased make-up air or leaks into the work area. Determine the number of units required for pressure isolation by the following procedure:

    a. Establish required air circulation in the work area, personnel and equipment decontamination of units.
    b. Establish isolation by increase pressure in adjacent areas or as part of the seals where required.
    c. Exhaust a sufficient number of units from the work area to develop the required pressure differential. The required number of units is the number determined above plus one additional unit.

4. Vent the HEPA-filtered fan units to the outside of the building unless authorized in writing by the owner. Mount the units so as to exhaust directly or through disposable duck work using only new duct work expect for sheet metal connections and elbows. Use ductwork and fittings of the same diameter or larger than the discharge connection on the fan unit. Use inflatable, disposable plastic duct work in lengths not greater than 100 feet. Use spiral wore reinforced flex duct in lengths not greater than 50 feet. Arrange exhaust a required to inflate duct, to rigidity sufficient, to prevent flapping. If direction of discharge from fan unit is not aligned with duct, use sheet metal elbow to change direction. Use six feet of spiral wire reinforced flex duct after direction change.

F. ISOLATION OF ELEVATORS

For isolation of elevators, stair towers, and return air intakes, erect seals with an air space at doors to elevators and stair towers. Pressurize this space with HEPA-filtered air so it is at a pressure greater than either the work area, elevator shaft or stair tower. Fabricate seal b the first sealing door with duct tape and 6-ml polyethylene. Construct a barrier from 2" CDX plywood supported by 2"x4" wood studs at 16" on center. Space the face of the barrier a minimum of 3: from the face of the door. Seal barriers with 6 mil sheet plastic and duct tape. Use plywood and framing lumber that is treated to be fire resistant. Pressurize space with exhaust from HEPA- filtered fan unit. Continuously maintain a pressure differential with this space a minimum of 0.02" of water higher in static pressure than any adjacent space. Locate HEPA-filtered fan units outside of the work area. Fabricate a manifold as required to distribute air to individual spaces to be isolated. Provide relief venting at unit as required to prevent shutdown due to low air flow, while still maintaining the required air pressure.

ISOLATION OF CHASES AND ENCLOSED STAIRS

Pressurize chases and enclosed stairs so they are at a pressure greater than any adjacent work area. Pressurize space with centrifugal type fans. Axial type fans are not to be used for this purpose. Continuously maintain a pressure differential in this space a minimum of 0.02" of water higher in static pressure than any adjacent work area.

G. ISOLATION OF DUCT WORK

Duct work located in the work area is to be isolated from the work area. Seal all openings in duct work with 6-mil polyethylene attached by spray adhesive and duct tape. Wrap the duct with 6-mil polyethylene. Seal all polyethylene seams with spray adhesive and duct tape.

H. MONITORING

Continuously monitor and record the pressure differential between the work area and the building outside of the work area with a monitoring device incorporating a strip chart recorder.

I. AIR CIRCULATION IN THE WORK AREA

For purposes of this section, air circulation refers to either the introduction of outside air to the work area or the circulation and cleaning of air within the work area.

1. Air circulation in the work area is a minimum requirement intended to help maintain dust, a level that does not significantly challenge the work area isolation measures. The contractor may also use this air circulation as part of the engineering controls in his worker protection program.
2. Provide a fully operational air circulation system supplying a minimum air circulation rate of six (6) air changes per hour.
3. Determine the number of units needed to achieve required air circulation by first determining the volume in cubic feet of the work area but multiplying the floor area by the ceiling height. Determine the total air circulation requirement in cubic feet per minute (CFM) for the work by dividing this volume by the air change rate and multiplying by 60.

$$\text{Air Circulation Required in CFM} = \frac{\text{Volume of work area (cu. Ft) x 60 (minutes per hour)}}{\text{Six (6) Air changes per hour}}$$

Divide the air circulation requirement (CFM) above by the capacity of HEPA-filtered fan unit(s) used. Capacity of a unit for purposes of this section is the capacity in cubic feet per minute with fully loaded filters (pressure differential that causes the loaded filter warning light to come on) in the machines labeled operating characteristics.

$$\text{Number of units needed} = \frac{\text{Air circulation requirement (CFM)}}{\text{Capacity of Unit with Loaded Filters (CFM)}}$$

Provide one spare unit per four containment areas (on minimum per job site) as a backup in case of equipment failure or shutdown of machine for filter changing. Size spare unit to be of the same capacity as the largest operation unit.

J. USE OF THE PRESSURE DIFFERENTIAL AND AIR CIRCULATION SYSTEM

1. Each HEPA-filtered fan unit shall be serviced by a dedicated minimum 115V-20A circuit with ground fault circuit interrupter (GFCI) supplied from a temporary power supply. Do not use existing branch circuits to power fan units without the owner's consent.
2. Test pressure differential system before any demolition begins. Demonstrate operation and testing of pressure differential system to the consultant-owner.
3. Demonstrate conditions of equipment for each HEPA-filtered fan unit and pressure differential monitoring equipment including squareness of the HEPA filter, condition of the seal, proper operation of all lights, proper operation of the automatic shutdown if exhaust is blocked, proper operation of alarms and magnahelic gauge and proper operation and calibration on pressure monitoring equipment.
4. Demonstration of the operation of the pressure differential system to the consultant/owner will ensure, at a minimum, the following:

a. Plastic barriers and sheeting move slightly in toward the work area, the curtain of the decontamination units moves slightly in toward work area and there is a noticeable movement of air through the decontamination unit.
b. The required pressure differential exists at every barrier separating the work area from the balance of the building, equipment, duct work or outside (verified by a differential pressure meter or manometer)
c. Modify the pressure differential system as necessary to demonstrate successfully the above requirements.

K. USE OF THE SYSTEM DURING RENOVATION OPERATIONS

Start the fan unit before beginning the work (before any demolition). After renovation work has begun, run the units continuously to maintain a constant pressure differential and air circulation until decontamination of the work area is complete. Do not turn off units at the end of the work shift or when decontamination of the work area is complete. Do not turn off units at the end of the work shift or when renovation operations temporarily stop. Supply sufficient pre-filters to allow frequent changes. Start renovation work at a location farthest from the fan units and proceed toward them, if possible. If an electric power failure occurs, immediately stop all renovation work and do not resume until power is restored and fan units are operating again. At the completion of the renovation work, allow the fan units to run to remove airborne dust that may have been generated during renovation work and cleanup and to purge the work area with clean make-up air.

L. DISMANTLING THE SYSTEM

At the option of the owner, when a final inspection is completed and the area has been cleaned, fan units may be removed from the work area. Before removal from the work area, remove and properly dispose of pre-filter, decontaminate exterior of the machine, and seal the intake to the machine with a 6-mil polyethylene to prevent environmental contamination from the filters.

END OF SECTION VII

FORM 1
FACILITIES MANAGEMENT
DUST CONTROL DAILY COMPLIANCE SURVEY

Date: _____

Project Title: _____

Project No: _____ Location: _____

General Contractor: _____

Construction Barricade	Time: _____		Time: _____	
	Yes	No	Yes	No
Barricades sealed – no penetrations				
Walk off mats in place, clean				
Door frames gasketed, doors closed				
Dust caution signs posted				
Adjacent ceiling areas intact				
Adjacent floor areas clean – no dust tracking				
Comments:				

Negative Air	Time: _____		Time: _____	
	Yes	No	Yes	No
Negative pressure at barricade entrance				
All windows and doors closed behind barricade				
Negative air machines running				
Negative air machines filter clean				
Negative air discharge hoses intact				
Comments:				

Jobsite	Time: _____		Time: _____	
	Yes	No	Yes	No
Project area clean, debris removed daily				
Debris removed in suitable containers				
Debris removed at time specified				
Comments:				

Occupied Areas	Time: _____		Time: _____	
	Yes	No	Yes	No
Work authorized and scheduled				
Visqueen barricade in place, properly sealed				
Ceiling access tag posted				
Surrounding area clean				
Comments:				

CC: General Contractor

_____

Inspector

Clinton Regional Hospital

-- ICRA-ILSM Daily Inspection Form

Date: _____ Project Title: _____ Contractor: _____ Location: _____														
Project start date: _____	Mon / /	Tue / /	Wed / /	Thurs / /	Fri / /	Sat / /	Sun / /	Mon / /	Tue / /	Wed / /	Thurs / /	Fri / /	Sat / /	Sun / /
Project end date: _____	Time	Time	Time	Time	Time	Time	Time	Time	Time	Time	Time	Time	Time	Time
	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
Construction Barricades														
Barricades sealed – on penetrations														
Walk off mats in place, clean														
Door frames gasketed, doors closed														
Adjacent floor areas clean – no dust tracking														
Adjacent ceiling areas intact														
Dust caution signs posted														
Negative Air														
Negative pressure at barricade entrance														
All windows/doors closed behind barricade														
Negative air machines running w/hoses intact														
Negative air machines filter clean														
Jobsite														
Project area clean, debris removed daily														
Debris removed in suitable containers														
Debris removed at time specified														
Occupied Areas														
Work authorized and scheduled														
Visqueen barricade in place, properly sealed														
Ceiling access tag posted														
Surrounding area clean														
Life Safety														
Ensuring free and unobstructed exits														
Ensuring free/unobstructed access to Em. Services														
Fire systems are in good working order														
Temporary construction partitions appropriate														
Additional fire-fighting equipment / training														
Phrohibiting smoking in buildings and construction areas														
Enforcing storage, housekeeping, and debris removal														
Conducting two fires drills per shift per quarter														
Training personnel for impaired structural or compartmentalization features of fire safety														
Conducting education programs to promote awareness of LSC deficiencies, hazards, and ILSM.														
Initialed by facility representatives														
Initialed by construction representatives														
Comments:														

<<Hospital>>

LS.01.02.01.3.b

Life Safety Deficiency or Project: _____ Date of Assessment: _____

Location: _____ Date Forwarded to EC Committee: _____

ILSM Required: YES ☐ NO ☐

INTERIM LIFE SAFETY ASSESSMENT

How the Hospital Protects Occupants During Periods When the Life Safety Code is Not Met or During Periods of Construction	1. Notify fire department, initiate fire watch	2. Post signage indicating alternate exits.	3. ILSM policy is updated, implemenmted.	4. Exits in affected areas are inspected daily.	5. Temporary, equivalent fire alarm/detection systems are in use.	6. Provide additional fire-fighting equipment.	7. Temporary construction partitions are smoke-tight and noncombustible.	8. Increase surveillance of buildings, grounds, equipment.	9. Enforce storage, housekeeping and debris removal to reduce fire load.	10. Additional fire-fighting training provided.	11. One additional fire drill per shift is conducted.	12. Monthly inspections and testing of temporary systems.	13. Education is provided on building deficiencies, construction hazards and temporary measures.	14. Training is provided to compensate for impaired structural or compartmental fire safety features.
EGRESS RESTRICTIONS GREATER THAN 4 HOURS														
1. Fire Door Latching Problem Not Immediately Repairable														
2. Fire Exit Stairs Discharge Improperly														
3. Excessive Travel Distance to an Approved Exit														
4. Absence of Two Remote Exits														
5. Absence of Two or More Building Exits														
6. Blocking of an Exit Due to Construction Activities														
7. Rerouting of Traffic Due to Construction Activities														
8. 25% of Smoke Detectors Removed From Service														
IMPAIRED FIRE ALARM /SPRINKLER SYSTEM GREATER THAN 4 HOURS														
1. Replacing Fire Alarm System														
2. Tagout of >25% of Smoke Detectors in One Zone														
3. Installing or Renovating Sprinkler System														
4. Taking a Fire Alarm System (or one of its components) Out of Service for Repair														
5. Taking a Sprinkler System (or one of its components) Out of Service for Repair														
6. Disconnecting Alarm Devices for Maintenance or Repair														
IMPAIRED FIRE/SMOKE BARRIERS GREATER THAN 4 HOURS														
1. Improperly Protected Vertical Openings														
2. Large Penetrations in Fire or Smoke Barriers														
3. Corridor Walls Do Not Extend to the Structure														
4. Hazardous Areas Not Properly Protected														
5. Significant Modifications to Smoke or Fire Walls														
6. Major Renovation of an Occupied floor														
7. Adding an Addition to an Existing Structure														
8. Build-out of a Shell Floor in an Existing Building														
MISCELLANEOUS LIFE SAFETY DEFICIENCIES (PFI, RFI, PoC, Building Tour LSC issues, Fire Alarm/Sprinkler deficiencies) (list specific Life Safety deficiencies that cannot be immediately corrected.														
1.														
2.														
3.														
4.														
5.														
6.														
7.														
8.														

1. The above list of deficiencies and issues is not meant to be all inclusive. Issues, deficiencies, etc not addressed in the above list will be handle on a case-by-case basis with regard to the appropriate ILSM response. Provide narrative attachment for clarification if necessary.
2. Fire department and FM Global shall be notified for all impairments whose duration is greater than 4 hours.