OPERATIONS AND MAINTENANCE PLAN
FOR

ASBESTOS

Subject Property:

Sage Tower Apartment Building
115 North 24th Street
Billings, Montana

Date: October 31, 2017

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1. Asbestos Hazard

1.1 Asbestos is a known human carcinogen. There is no evidence of a threshold exposure level below which the risk of cancer is not increased. While it is difficult to quantify the precise risk posed by exposure to asbestos in buildings, exposure should be minimized.

1.2 The hazards of asbestos are well documented and universally recognized. Asbestos has long been known to cause asbestosis and a variety of irreversible cancers. In recognition of the serious health hazards associated with asbestos, various federal, state, and local agencies have imposed strict regulations. These regulations are designed to protect employees exposed in the work place and to prevent exposure to asbestos.

1.3 The three main types of Asbestos Containing Material (ACM) that can be in a building are:

A. **Surfacing Material:** ACM sprayed or troweled on surfaces, such as acoustical plaster on ceilings and fireproofing material on structural members. Surface material ACM contains more than 1% asbestos.

B. **Thermal System Insulation:** ACM applied to pipes, boilers, tanks, ducts, etc. to prevent heat loss or grain or water condensation. Thermal System Insulation ACM contains more than 1% asbestos.

C. **Miscellaneous ACM:** for example, ceiling and floor tiles, wallboard, siding and textiles containing more than 1% asbestos.

1.4 All identified suspect materials within the building (excluding roofing) have been sampled and those materials confirmed or assumed to contain asbestos are listed in Section 6.

1.5 When Asbestos is a Problem.

Intact and undisturbed asbestos materials do not pose a health risk. The mere presence of asbestos in a building does not mean that the health of building occupants is endangered. ACM which is in good condition, and is not somehow damaged or disturbed, is not likely to release asbestos fibers into the air. When ACM is properly managed, release of asbestos fibers into the air is prevented or minimized, and the risk of asbestos-related disease can be reduced to a negligible level.

However, asbestos materials can become hazardous when, due to damage, disturbance, or deterioration over time, they release fibers into building air. Under these conditions, when ACM is damaged or disturbed -- for example, by maintenance repairs conducted without proper controls -- elevated airborne asbestos concentrations can create a potential hazard for workers and other building occupants.

2. General

2.1 The purpose of this Asbestos Operations and Maintenance program is to provide all of the Sage Tower employees at 115 North 24th Street, Billings, Montana with general information covering the potential occupational exposure to airborne asbestos fibers. The following O&M program is designed to ensure proper procedures for cleanup of previously released asbestos fibers, to prevent future release by minimizing disturbance or damage to ACM, and to monitor ACM condition.

The Sage Tower Asbestos Program Manager is Arisa Carey. Ms. Carey has authority to direct all on-site personnel with regard to activities which may, but are not intended to disturb asbestos containing materials. Ms. Carey may be contacted at 406-860-9761 . In all other instances the Sage Tower Maintenance Manager, must be contacted at 406-252-3773.

2.2 The Asbestos Operations and Maintenance (O&M) Program provides a guidance on worker protection, basic O&M procedures, O&M cleaning practices, and procedures for responding to minor asbestos fiber release episodes. This program includes the following elements:

A. Procedures to notify personnel about the presence of asbestos containing building materials.

B. Specific work practices for cleaning the building and minimizing ACM disturbance during maintenance and renovation.

C. Procedures for notifying qualified personnel regarding the cleanup of asbestos fibers after a fiber release episode.

D. Verification procedures to ensure work control/permit systems are being utilized when "small scale, short" disturbance activity as defined by OSHA is being conducted.

E. Training program requirements.

F. Regular surveillance of the ACM.

G. Record keeping requirements.

3. Scope and Flexibility

3.1 It is emphasized within this O&M PLAN that no on-site employee is authorized to disturb any asbestos-containing material (ACM), and that only qualified trained personnel are authorized for the repair and/or removal of any quantities of damaged ACM.

3.2 All projects will be performed by licensed Asbestos Abatement Contractors in accordance with generally recognized asbestos control techniques. If ACM is in poor condition, O&M might not be appropriate and abatement might be necessary. These O&M work practices are not to be used for activities requiring abatement of ACM.

4. O&M Plan Objectives

4.1 The overall goal of the asbestos O&M plan at this building is to maintain the building environment free of asbestos contamination. The specific program objectives addressed by this O&M plan are: 1) notification, 2) surveillance, 3) controls, 4) work practices, 5) record keeping, 6) worker protection, and 7) training.

4.2 Asbestos Work Classes

A. Up to four classes are recognized for each work practice/activity to address different degrees of potential asbestos fiber exposure. The four work classes are defined as follows:

1) *Class I asbestos work* (32-Hour or 40-Hour Training) means activities involving the removal/repair of TSI and surfacing ACM.

2) *Class II asbestos work* (32-Hour or 40-Hour Training) means activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.

3) *Class III asbestos work* (16-Hour Maintenance Training) means maintenance and custodial activities during which employees contact ACM and activities to clean up waste and debris containing ACM.

4) *Class IV asbestos work* (2-Hour Awareness Training) means maintenance and custodial activities during which employees contact ACM and activities to clean up waste and debris containing ACM.

A "disturbance" of ACM, as used in the class definitions, refers to any activity that disrupts the matrix of ACM, or generates visible debris, or disturbs visible debris.

4.3 As cited in EPA Managing Asbestos In Place Handbook 20T-2003 "The extent of O&M plans may vary depending on the building type, the type of ACM present, and the ACM's location and physical condition, specifically if only non-friable ACM is present." In all instances where accidental disturbances occur, the on-site manager will notify the Asbestos Program Manager immediately.

5. Applicable Regulations

5.1 OSHA regulation 29 CFR Parts 1910.0001 and 29 CFR 1926.1101 (formerly 1926.58) including 1994 Amended regulations.

5.2 EPA regulations 40 CFR Part 61, National Emission Standard for Hazardous Air Pollutants, Subpart M-National Emission Standard for Asbestos

5.3 State and local regulations, which might be the same as, equivalent to, or more stringent than federal regulations, also apply. All work conducted within the building shall conform with State of Montana ARM, Chapter 74, Subchapter 3, General Provisions, Subchapter 4, Fees (17.74.401 to 17.74.405), and Montana Asbestos Work Practice and Procedures Manual. In addition, generally accepted good construction work practices should be used for all other aspects of O&M activities not specifically mentioned in these work practices.

6. Asbestos Containing Materials at Sage Tower Apartment Building

6.1 The Sage Tower Retirement Apartment Building is located at 115 North 24th Street, in Billings, Montana. The building is a ten-story building. The building is set on a concrete foundation and has a basement.

Interior walls in the building are sheetrock and concrete block. Interior flooring materials consist of 12 inch by 12-inch vinyl floor tile in the restrooms, laundry rooms, and garbage rooms on each floor; carpet over concrete slab floors in the resident rooms; and sheet flooring in the resident restrooms. Ceiling materials include suspended two-foot by four-foot lay-in ceiling tiles and sheetrock ceilings with spray-on popcorn surfacing.

A summary of the homogeneous areas of asbestos-containing building materials found in this building are as follows:

Summary of ACBM					
HA No.	**Homogeneous Material Description**	**Percent Asbestos**	**Condition**	**Approximate Quality**	**Recommended Response Action**
M8.1	Grey Door Caulking	3% Chrysotile	Intact	20 Linear Feet	O&M remove if to be effected by renovation
T8.1	Taping on duct joints in mechanical room	80% Chrysotile	Intact	25 Linear Feet	O&M remove if to be effected by renovation
M1.1	Membrane roofing materials	ASSUMED	Intact	21,00 Square Feet	O&M remove if to be effected by renovation

Some of the materials in the building were suspected to be asbestos-containing building materials (ACBM). These were sampled and found not to contain asbestos. These include:

- Green pebbled sheet flooring in the kitchen and food prep areas (F1.2)
- White pebbled sheet flooring under green pebbled sheet flooring in the food prep area (F1.3)
- White 12-inch by 12-inch floor tile in the refuse rooms on each floor (F2.1)
- Light green 12-inch by 12-inch floor tile and associated mastic in the basement halls (F2.2)
- White 12 inch by 12 inch floor tile in the basement restrooms (F2.3)
- Light brown 12-inch by 12-inch floor tile and associated mastic in the basement laundry room (F2.4)
- White 12-inch by 12-inch floor tile and associated mastic in the first floor restrooms (F2.5)
- Carpet mastic (F5.1)
- Wall base mastic (F5.2)
- Brown deck joint mastic at the top of the walls (F5.3)
- Grey deck joint mastic at the top of the block walls (F5.4)

- Brown wall board mastic between the green-board and the bead-board (F5.5)
- Wallboard wall system material from resident apartments (M3.1)
- Two-foot by four-foot lay-in ceiling panels in apartments (M5.1)
- Two-foot by four-foot lay-in ceiling panels in the basement (M5.2)
- Grey window glazing (M8.2)
- Wall base mastic in the basement (M8.3)
- Ceramic tile grout associated with the cream four-inch tiles (M16.1)
- Sink undercoating (M17.1)
- Orange peel wall texturing (S1.1)
- Popcorn ceiling material in the basement corridor (S1.2)
- Plaster wall surfacing (S1.3)
- Popcorn ceiling material in the first floor restrooms (S1.4)
- Water tank insulation in the boiler room (T5.1)

Prior to any activities involving the potential disturbance of the ACM identified above, the Sage Tower manager must be notified in writing.

Included in presumed ACMs are all NOB materials (i.e., vinyl flooring materials, mastics, glazing, roofing materials and caulks).

The mechanical room has taping on the duct joints that is a friable material.

7. Compliance Controls

7.1 The Sage Tower on-site manager shall have oversight of the O&M plan and will ensure its adherence. The Sage Tower on-site manager will monitor ACM's for accidental disturbance and will continually update the plan in all areas, i.e. training, disturbance, etc. This individual will have the responsibility of contacting the Sage Tower Asbestos Program Manager prior to the disturbance of ACM's within the building.

7.2 Written work practices and procedures shall be made available to all Sage Tower employees involved in addressing the hazard associated with asbestos. The work practices and procedures will indicate ways to properly work around asbestos-containing material and reduce the potential for employee exposure to asbestos fibers.

7.3 The Sage Tower on-site manager will ensure that all employees entering the building for the purposes of disturbing ACM's will be properly certified.

7.4 The Sage Tower on-site manager shall have the responsibility of notifying the Sage Tower Asbestos Program Manager of all actions concerning possible disturbance of ACM's prior to any activity.

7.5 Any Class I, Class II, Class III, or Class IV work will be conducted by qualified contracts in accordance with any applicable regulation and monitored by the Sage Tower Asbestos Program Manager. The work will be scheduled for a time when the work area will not be in use and can be closed off to anyone other than trained workers, or other authorized personnel. If an area is always occupied, plans will be made to isolate the work area from building occupants using visual and/or physical barriers. If a special work area arrangement is required, a sketch will be provided to the workers showing how the area is to be set up.

7.6 Notification Requirements Prior to Commencement of ACM Disturbance.

1. The Sage Tower Asbestos Program Manager will ensure that the Asbestos Contractor will file all notices required by federal, state and local regulations prior to the start of any O&M activities that are governed by these regulations.

2. All building employees who use, occupy, or are affected by an area where ACM work will occur shall be notified prior to the start of the work by the Sage Tower on-site manager. All employees will be given information about the scope of work.

7.7 Any sampling for ACM in the building shall be conducted by a State Accredited Inspector and by random bulk sampling with PLM analytical analysis. All friable material located in mechanical rooms should be labeled and identified as ACM with "Asbestos Danger" labels.

7.8 All areas of work where asbestos exposure may EXCEED THE PEL must be segregated and deemed a "regulated area" as described in 29 CFR 1910.1001(e). All regulated areas must be marked as such with a sign which reads:

DANGER
ASBESTOS
CANCER AND LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING
ARE REQUIRED IN THIS AREA

The Sage Tower on-site manager shall ensure that the signs are understood by all employees.

7.9 All friable ACM identified in the building must be marked with a sign which reads:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD

The Sage Tower Asbestos Program Manager shall institute engineering controls and work practices to reduce and maintain employee exposure to or below the PEL, except to the extent that such controls are not feasible. If exposure levels exceed the PEL, then these compliance measures must be in writing and kept on file.

8. Worker Protection

8.1 Air monitoring must be conducted of suspected regulated areas and personal monitoring of employees who may be exposed to airborne asbestos concentrations above the PEL. As long as airborne asbestos is suspected, monitoring must be conducted at intervals of 6 months minimum. The need for air monitoring must be reassessed whenever a change in processes, control equipment, personnel or work practices may result in exposure above the PEL. Employees who are monitored must be notified of all results of monitoring within 15 working days after receipt of results and describe corrective actions taken to reduce exposure in the PEL are exceeded. Records and results of air monitoring shall be kept in the Appendix. The Air Monitoring Program should specify when air monitoring will be performed, the types of monitoring (personnel, background, area, clearances, etc.) All analysis for OSHA compliance should be by phase contrast microscopy (PCM) utilizing the OSHA Reference Method or the NIOSH 7400 Method. The Sage Tower Asbestos Program Manager or designee will ensure that qualified industrial personnel, i.e. Certified Industrial Hygienist oversees the monitoring by an Industrial Hygiene Technician.

8.2 Medical Surveillance.

All employees and contractors who are exposed to asbestos above the PEL for more than 30 days or if asked to wear a negative pressure respirator, are required to undergo medical surveillance according to 29 CFR 1910.1001(1). These records shall be kept in the Appendix. Contractors are responsible for conducting their own medical surveillance programs; however, the Sage Tower Asbestos Program Manager shall ensure that contractors are conducting a medical surveillance program and obtain copies of these records to be placed in O&M Manual.

9. Record Keeping

9.1 The Sage Tower on-site manager will retain the following records of O&M work in permanent files at this building.

1. Inspection and Assessment reports.
2. A copy of the O&M Program (initial program and all updated versions)
3. The Work Practices Used (if needed).
4. Respiratory Protection Program (if needed).
5. Fiber Release Reports (if needed).
6. Job Request Forms (if needed).
7. Maintenance Work Authorization Forms (if needed).
8. Evaluation of Asbestos Work Form
9. Reinspection/Periodic Surveillance Reports (if needed).
10. Waste Tracking and Disposal (if needed).
11. Air Monitoring Data (if needed).
12. Qualifications for Outside Contractors performing O&M work (if needed).
13. Employee Notification.

10. Notification

10.1 This involves informing the Sage Tower on-site manager of the location of ACM and the need to avoid disturbing the material. Sage Tower management of the building located at 115 North 24th Street in Billings, Montana has two primary objectives:

1. First, ensure Sage Tower employees are informed of any potential asbestos hazard in the building.
2. Second, ensure employees who are informed and instructed about ACM do not inadvertently disturb the material and cause fibers to be released into the air.

10.2 Sage Tower employees can be informed in at least four ways:

1. Distributing notices.
2. Posting signs.
3. Holding awareness or information sessions.
4. Making survey reports and O&M Plan available for review by occupants.

The methods may depend on the type and location of the ACM, and on the number of people affected.

10.3 Information sessions reinforce and clarify written notices and signs, and provide an opportunity to answer questions. All new employees shall be included in the notification program on a continuing basis. New employees need to be informed before beginning work. All sessions are to be documented and maintained in the appendix of the local O&M plan by the Sage Tower on-site manager.

10.4 Whatever its form, the information given to building occupants should contain the following points:

1. Asbestos is a potential health hazard.
2. Material containing asbestos has been found in the building.
3. The ACM is currently in good condition (or has been encapsulated or enclosed) and should not present a danger unless disturbed or damaged.
4. The ACM is found in the following locations (e.g., spray on textured ceiling).
5. Avoid disturbing the ACM (e.g., do not disturb spray on textured ceiling).
6. Report any evidence of disturbance or damage.
7. Cleaning and maintenance personnel are taking special precautions during their work to properly clean up asbestos debris and to guard against disturbing the ACM.
8. All ACM is inspected periodically and additional measures will be taken when needed to protect the health of building occupants.
9. Report any dust or debris from ACM, any change in the condition of the ACM, or any improper action of building personnel to the Sage Tower on-site manager.
10. Name of the Sage Tower on-site manager (Annie Hammond, 406-248-1060).

11. Training

11.1 The On-Site Manager and all employees who may come into contact with ACM due to the nature and activity of their work (i.e. custodians) shall receive awareness training of at least two hours. Training shall be in accordance with the OSHA regulations 29 CFR 1910.1001 and 29 CFR 1926.1101. The two hour training shall, at a minimum, include the following:

1. Information regarding asbestos and its various uses and forms.
2. Information on the health effects associated with asbestos exposure.
3. Information regarding the location of ACM through the building in which they work.
4. Recognition of friable and nonfriable asbestos, damage, deterioration and delamination of ACM.
5. Name and extension of person designated to carry out general responsibilities, location and availability of the written O&M plan.

11.2 Any contractors who engage in activities which will result in the handling, disturbance or removal of ACM must receive training according to 29 CFR 1910.1001 and 29 CFR 1926.1101.

11.3 All training provided must be documented in the employee's record and maintained in the Appendix of the O&M Plan by the Sage Tower on-site manager. A copy of all training records must also be sent to the Sage Tower Asbestos Program Manager to keep on file.

12. Work Practices and Procedures

12.1 ACM Surveillance.

All ACM in the building shall be scheduled for an inspection of damage or deterioration every six months by the Sage Tower on-site manager. Records of these inspections shall be kept on file with the O&M plan.

Six month periodic inspections shall be made of the identified asbestos-containing building materials and the findings of the inspection recorded.

Either the Sage Tower on-site manager or the Sage Tower Asbestos Program Manager or someone trained or experienced in ACM assessment should conduct the inspections. The results should be documented and placed in the permanent on-site asbestos file, with a copy to the Sage Tower Asbestos Program Manager.

12.2 Work Control/Permit System.

1. This O&M program includes a system to control all work that could disturb ACM. Prior to any work activities involving asbestos, the employee requesting the work must submit a Maintenance Work Order to the Sage Tower on-site manager. The Sage Tower on-site manager should review the form for time, location, type of maintenance needed, and available information about any ACM in the vicinity of the requested work and complete the Job Request Form (Appendix A). Once this information is verified, the form will be forwarded to the Sage Tower Asbestos Program Manager for approval. The contractor or other person authorized to perform the work should be identified on the work authorization form.

2. Upon receiving a pre-work Job Request Form, the Sage Tower Asbestos Program Manager will take the following steps:

   a) Refer to written records, building plans and specifications, and any building ACM inspection reports to determine whether ACM is present in the area where the work will occur. If ACM is present, but it is anticipated that the material will not be disturbed, the Sage Tower Asbestos Program Manager should note the presence of ACM on the Maintenance Work Authorization Form (Appendix B) and forward the request back to the Sage Tower on-site manager and provide additional instruction on the importance of not disturbing the ACM.

   b) If ACM is both present and likely to be disturbed, the Sage Tower Asbestos Program Manager will require a licensed contractor to perform the work.

   c) This determination should be recorded on the Maintenance Work Authorization Form which is then sent to the asbestos contractor to authorize the work.

   d) The Sage Tower Asbestos Program Manager will make a copy of both the request and the authorization forms (if granted) and place in the permanent files with a copy to the Sage Tower on-site manager.

e) Where the task is not covered by previously approved standard work practices, the Sage Tower Asbestos Program Manager will determine the appropriate work practices to be used for the project prior to assignment.

f) For all jobs where contact with ACM is likely, the Sage Tower Asbestos Program Manager or designee will visit the work site when the work begins to see that the job is being performed properly.

g) The Sage Tower Asbestos Program Manager's or designee's observations during the site inspections should be included on the Evaluation of Asbestos Work Form (Appendix C).

12.3 Procedures for Fiber Release Episodes

As long as ACM remains at the Sage Tower Apartment building located in Billings, Montana, a fiber release episode could occur. Custodial and maintenance workers should report to the Sage Tower on-site manager the presence of debris on the floor, water or physical damage to the ACM, or any other evidence of possible fiber release. Fiber release episodes can also occur during maintenance or renovation projects. The Sage Tower on-site manager should immediately contact the Sage Tower Asbestos Program Manager who will assign a suitably trained contract team to clean up debris and make repairs as soon as possible. The air-handling system should be shut off or temporarily modified to prevent the distribution of fibers from the work site to other areas of the building.

The area should be isolated as soon as possible after the ACM debris is discovered. Where the area can be sealed by doors, they should be locked from the inside (escape corridors must remain in operation) and signs posted to prevent unauthorized personnel from entering the work area:

("DANGER-ASBESTOS; CANCER AND LUNG DISEASE HAZARD; AUTHORIZED PERSONNEL ONLY; RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA")

Each fiber release episode should be documented and a copy sent to the Sage Tower Asbestos Program Manager. A report format for a fiber release is included in the Appendix E.

13. Disposal

13.1 While on-site personnel are not required to work with disturbed ACM's qualified contractors should, at a minimum, adhere to the following:

1. The following steps shall be taken when preparing ACM for disposal:

   a) All ACM or asbestos-contaminated waste shall be placed in a labeled 6 mil impermeable poly bag and sealed at the top with duct tape. The first bag shall be double bagged in a second labeled 6 mil impermeable poly bag and sealed at the top with duct tape.

   b) All asbestos material shall be adequately wet inside the 6 mil impermeable poly bag prior to sealing limiting fiber release if the bag is broken during transportation or disposal.

2. The following steps shall be taken when transporting waste to a registered asbestos landfill:

   a) Asbestos waste manifests shall be completed prior to transporting asbestos to the landfill. The Sage Tower Asbestos Program Manager shall ensure a copy of the manifest is received and one copy placed in the O&M Manual.

   b) Asbestos waste shall be transported to the registered asbestos landfill in an enclosed or covered vehicle.

3. Only landfills registered with the appropriate state agency shall be used for the disposal of asbestos waste. The disposal site must conform to 40 CFR 61.152 (NESHAP).

14. O&M Work Practices

14.1 Definitions:

1. *Class I asbestos work* (32-Hour or 40-Hour Training) means activities involving the removal/repair of TSI and surfacing ACM.

2. *Class II asbestos work* (32-Hour or 40-Hour Training) means activities involving the removal/repair of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal/repair of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction materials.

3. *Class III asbestos work* (16-Hour Maintenance Training) means repair and maintenance operations, where "ACM", including thermal system insulation and surfacing material, is likely to be disturbed. (Amount of material that can be contained within a glove bag or one standard disposal bag.)

4. *Class IV asbestos work* (2-Hour Awareness Training) means maintenance and custodial activities during which employees contact ACM and activities to clean up waste and debris containing ACM.

14.2 General Work Practice Guidelines

1. The O&M work practices in this manual are designed to provide guidance to the O&M personnel for conducting maintenance, repair and minor renovation work in accordance with an established asbestos O&M program and applicable regulations. The work practices in this manual are designed to reduce or contain materials, dust, or fiber release resulting from work performed on or near asbestos-containing materials. The work practices are also intended to minimize the extent and impact of any releases which do occur.

2. As a part of the O&M program, the Sage Tower Asbestos Program Manager should review building inspection information to determine whether or not a suspect material contains asbestos. If a suspect material which is to be worked on has not been sampled, it should either be sampled and analyzed in accordance with the EPA Pink and/or Purple Books, or be assumed to contain asbestos and treated accordingly.

3. The work practices in this manual are generally designed to address one material at a time. If more than one type of material is involved, work practices should be selected and used in the order in which the materials will be encountered during the work. If two (2) or more materials must be addressed at one time, O&M personnel in conjunction with the Sage Tower Asbestos Program Manager shall develop a combined Work Practice to address the particular work situation.

4. When developing a combined work practice, the Sage Tower Asbestos Program Manager shall implement the most precautionary level of work practices.

14.3 Methods of compliance:

As a minimum, the following engineering controls and practices shall be used regardless of the level of exposure.

1. Vacuum cleaners equipped with HEPA filters to collect all debris and dust containing ACM; and

2. Wet methods, or wetting agents, to control employee exposures during asbestos handling, mixing, removal, cutting, application, and cleanup, except where employers demonstrate that the use of wet methods is infeasible due to for example, the creation of electrical hazards, equipment malfunction, and, in roofing, slipping hazards; and

3. Prompt cleanup and disposal of wastes and debris contaminated with asbestos in leak-tight containers.

14.4 Prohibitions. The following work practices and engineering controls shall NOT be used for work related to asbestos or for work which disturbs ACM, regardless of measured levels of asbestos exposure or the results of initial exposure assessments:

1. High-speed abrasive disc saws that are not equipped with point of cut ventilator or enclosures with HEPA filtered exhaust air.

2. Compressed air used to remove asbestos, or materials containing asbestos, unless the compressed air is used in conjunction with an enclosed ventilation system designed to capture the dust cloud created by the compressed air.

3. Dry sweeping, shoveling or other dry cleanup of dust and debris containing ACM.

14.5 Work Practices and Engineering Controls for Class III asbestos work. Class III asbestos work shall be conducted using engineering and work practice controls which minimize the exposure to employees performing the asbestos work and to bystander employees.

14.6 The work shall be performed using wet methods.

14.7 To the extent feasible, the work shall be performed using local exhaust ventilation.

14.8 Where the disturbance involves drilling, cutting, abrading, sanding, chipping, breaking, or sawing of thermal system insulation or surfacing material (containing more than 1% asbestos), the employer shall use impermeable drop cloths, and shall isolate the operation using mini-enclosure or glove bag systems.

14.9 Where the employee does not produce a "negative exposure assessment" for a job, or where monitoring results show the PEL has been exceeded, the employer shall contain the area using impermeable drop cloths and plastic barriers or their equivalent, or shall isolate the operation using a control system listed in and in compliance with OSHA paragraph 1926.1101.

14.10 Employees performing Class III jobs, which involve the disturbance of thermal system insulation or surfacing material (containing more than 1% asbestos), or where the employer does not produce a "negative exposure assessment" or where monitoring results show a PEL has been exceeded, shall wear respirators which are selected, used and fitted pursuant to provisions of the OSHA Respiratory Protection Standard (29 CFR Part 1910.134.

14.11 Class IV asbestos work. Class IV asbestos jobs shall be conducted by employees trained pursuant to the asbestos awareness training program. In addition, all Class IV jobs shall be conducted in conformity with mandating wet methods, HEPA vacuums, and prompt cleanup of debris containing ACM.

1. Employees cleaning up debris and waste in a regulated area where respirators are required shall wear respirators which are selected, used and fitted pursuant to provisions of OSHA Respiratory Protection Standard (29 CFR Part 1910.134).

2. Employers of employees who clean up waste and debris in, and employers in control of, areas where friable thermal system insulation or surfacing material is accessible, shall assume that such waste and debris contain asbestos.

Appendix A

Job Request Form for Maintenance Work

Job Request Form for Maintenance Work

Date_____

Phone No.:_____ Job Request No._____

Requested Start Date:_____ Projected Finish Date_____

Room number(s) (or description of area) where work is to be performed:

_____

_____

Description of Work:

_____

_____

Description of any asbestos-containing material that might be affected. (If known, include location and type.)

_____

_____

Name and telephone number of requester:

_____

Submit this application to:_____
(Sage Tower Asbestos Program Manager)

Note: An application must be submitted for all maintenance work, whether or not asbestos-containing material might be affected. An authorization must then be received before any work can proceed.

Appendix B

Maintenance Work Authorization Form

Maintenance Work Authorization Form

SAGE TOWER ASBESTOS PROGRAM MANAGER
Authorization/Confirmation of ACM Presence

Authorization is given to proceed with the following maintenance work:

_____
_____
_____

PRESENCE OF ASBESTOS-CONTAINING MATERIAL (ACM)

_____ Asbestos-containing materials (ACM) is not present in the vicinity of the maintenance work.

_____ ACM is present but its disturbance is not anticipated; however, if conditions change, the SAGE TOWER Asbestos Program Manager will re-evaluate the work request prior to proceeding.

_____ ACM is present and may be disturbed. This work will be completed by:

_____CONTRACTOR

Signed:_____Date:_____
(SAGE TOWER Asbestos Program Manager)

SAGE TOWER ON-SITE MANAGER

WORK PRACTICE IF ASBESTOS-CONTAINING MATERIALS ARE PRESENT
Refer to GUIDANCE MANUAL (Asbestos O&M Work Practices)

The following work practices shall be employed to avoid or minimize disturbing asbestos:

_____
_____
_____

PERSONAL PROTECTION IF ASBESTOS-CONTAINING MATERIALS ARE PRESENT
(Refer to Personal Protective Equipment Manuals)

The following equipment/clothes shall be used/worn during the work to protect workers:

_____
_____
_____

Special Practices and/or Equipment Required:

_____
_____
_____

Signed:_____ Date:_____
(Sage Tower Asbestos Program Manager)

Appendix C

Evaluation of Asbestos Work Form

Evaluation of Asbestos Work Form

This evaluation covers the following maintenance work:

Location of work (room number(s), or general description):

_____

Date(s) of work:_____

Description of work:

_____
_____
_____

Work approval form number:_____

Evaluation/type of work practices employed to minimize disturbance of asbestos:

_____
_____
_____

Evaluation/type of equipment and procedures used to protect workers:

_____
_____
_____

Personal air monitoring results:

Worker name_____ Results:_____

Worker name _____ Results:_____

Handling or storage of ACM waste:

_____
_____

Signed:_____ Date:_____
(Sage Tower Asbestos Program Manager)

Appendix D

Reinspection of Asbestos Containing Materials Form

REINSPECTION OF ASBESTOS-CONTAINING MATERIALS FORM

ROOM(S) No.	HA No.	MATERIAL	INSPECTED BY:			INSPECTED BY:			REMARKS
			Date	Change	No Change	Date	Change	No Change	
	M8.1	Gray door caulking							
	T8.1	Taping on duct joints in mechanical room							
	M1.1	Membrane roofing materials							

Signed:_____ Date:_____

Sage Tower On-Site Manager

Approved by:_____ Date:_____

Sage Tower Asbestos Program Manager

Appendix E

Fiber Release Episode Report Form

Fiber Release Episode Report Form

Location of asbestos-containing material:

1. Room:_____

   Release Location:_____
   _____

Assessment:

1. The release episode was reported by:_____on_____

2. Describe the episode:_____
   _____
   _____
   _____
   _____

3. Describe the corrective action taken:_____
   _____
   _____
   _____
   _____

Signed:_____ Date:_____
Sage Tower On-Site Manager

Approved by:_____ Date:_____
Sage Tower Asbestos Program Manager