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ASBESTOS INVENTORY, ASSESSMENT, AND SURVEY PART 1 VOLUME 1 OF 1 CNC CHARLESTON SC
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CNC CHARLESTON

DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES
ENGINEERING COMMAND

ASBESTOS INVENTORY, ASSESSMENT, AND SURVEY

CONTRACT N62467-88-C-0649
PART I
VOLUME 1 OF 1

FLEET AND MINE WARFARE TRAINING CENTER
CHARLESTON, SOUTH CAROLINA

We hope your review will be favorable and we look forward to our continued association. Should you have any questions or need additional information please do not hesitate to contact us.

Sincerely,

WESTINGHOUSE ENVIRONMENTAL
AND GEOTECHNICAL SERVICES, INC.

Timothy Spivey
Project Manager

Brice Chastain, MSPH, IHIT
Asbestos Technologies Manager

cc: Mr. Mike Patterson

TS/BC/cld

DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES
ENGINEERING COMMAND

FLEET AND MINE WARFARE TRAINING CENTER
CHARLESTON, SOUTH CAROLINA

ASBESTOS INVENTORY, ASSESSMENT, AND SURVEY

DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES
ENGINEERING COMMAND
FLEET AND MINE WARFARE TRAINING CENTER
CHARLESTON, SOUTH CAROLINA
ASBESTOS INVENTORY, ASSESSMENT, AND SURVEY

TABLE OF CONTENTS

	PAGE
EXECUTIVE SUMMARY	1
DISCLAIMER	3
1.0 SURVEY AND SAMPLING PROGRAM	4
1.1 Survey Procedures	4
1.2 Sampling Strategy	4
1.3 Sample Analysis Procedures	5
1.4 Buildings Surveyed	6
1.5 Limitations of Cost Estimates	8
2.0 ABATEMENT CONSIDERATIONS AND RECOMMENDATIONS	9
3.0 BUILDING DESCRIPTIONS	11
3.1 Building #202, Training Facility	11
3.2 Building #203, Paint Storage	13
3.3 Building #204, Pump House	14
3.4 Building #643, Training Facility	15
3.5 Building #645, Training Facility	17
3.6 Building #647, Training Facility	19
3.7 Building #649, Storage	21
3.8 Building #1303, Wet Trainer	22
3.9 Building #1309, Fire Fighting Trainer	23
3.10 Building #1310, Fire Fighting Trainer	24
3.11 Building #1313, Gear Locker	25
3.12 Building #1351, Paint Locker	26
3.13 Building #1352, Air Compressor Shed	27
3.14 Building #1715, Maintenance Shed	28
3.15 Building #1722, Generator Shed	30
3.16 Building #1744, Staff Lounge	31
3.17 Building #1819, Lawn Shed	32
3.18 Building #1834, Laundry	33

EXECUTIVE SUMMARY

The Naval Facilities Engineering Command, Southern Division, retained Westinghouse Environmental and Geotechnical Services, Inc. (Westinghouse) to conduct asbestos assessments under contract N62467-88-C-0649. The ninth amendment of the open end contract involves the inspection of 18 buildings at the Fleet and Mine Warfare Training Center (FMWTC), Charleston, South Carolina. The area surveyed at FMWTC totalled 160,057 square feet.

The survey included the review of buildings and material specifications, visual inspection of both interior and exterior building materials, sampling and analysis of suspect materials, determination of approximate location and condition of asbestos-containing materials (ACM) and cost estimates for abatement. The survey primarily focused on friable asbestos containing materials including sprayed-on or trowel applied materials and thermal system insulation. Suspect non-friable and miscellaneous materials such as floor tiles, ceiling tiles, and wall boards were also sampled at the request of FMWTC facilities management.

ACM are the materials which contain more than one percent (1%) asbestos by weight and are generally divided into three classifications: 1) surfacing materials, (sprayed or troweled on ceilings and walls). 2) thermal system insulation (materials covering hot and cold pipes, ducts, boilers and tanks). 3) miscellaneous materials (materials such as transite boards, ceiling tiles and floor tiles). Asbestos-containing materials are categorized as friable or non-friable. Friable asbestos materials can be crumbled, pulverized or reduced to powder by hand pressure. Non-friable asbestos materials contain asbestos in which fibers have been "locked in" by a bonding agent, coating, binder or other material so that the asbestos is bound and will not readily release fibers during normal handling or use. However, non-friable materials may become friable if improperly used or handled. Both friable and non-friable materials which become friable are regulated by federal and state agencies for use, handling, storage, transport and disposal.

The initial field surveys at FMWTC were conducted from October 15 through October 22, 1990. Ceilings, walls, floors, structural members, mechanical systems and components, and other interior and exterior surfaces or areas were examined for the presence of suspect ACM. Roofing materials are known to contain asbestos. These materials were not included in the contract and were not sampled in order to prevent damage to roofing components resulting from sample collection. These materials do not normally require special care until such time as they are removed or repaired. Sampling and analysis is recommended prior to these actions.

The survey at FMWTC revealed certain building materials which contain asbestos. These materials are thermal system insulation, sprayed on or trowel applied surfacing materials, floor tile/mastic, ceiling tiles, and air handling duct mastic. Thermal system insulation is the category in which most of the asbestos identified was found. This category includes pipe insulation, pipe elbow and fitting insulation, and tank and boiler insulation. The condition of the ACM varies throughout the facility depending upon past disturbance, deterioration and age.

Other non-asbestos materials and insulations are present such as fiberglass, foamglass or rubber foam and were installed during renovations, repairs or in conjunction with new equipment. In many cases the materials are intermingled and sporadically installed next to asbestos materials.

Asbestos Facility Inventory Forms (NAVFAC Form 5100/31) and Asbestos Facility Rating/Ranking Forms (NAVFAC Form 5100/32) were used to document homogeneous areas of suspect materials, samples of suspect materials collected and to identify the worst homogeneous area of ACBM found in each building. The inventory forms are located in Part II of the report. The rating/ranking forms are also located in Part II of the report. NAVOSH Deficiency Abatement Program Management Information System (DAP/MIS) Forms were completed if a building was found to contain asbestos. These forms give information concerning specific problems and hazards in relation to damaged or friable ACBM in the building along with general recommendations and cost estimates for controlling the ACBM. These forms are located in Part III of the report. The sample analysis sheets are located in Part V of the report. Finally, the drawings designating sample locations are also located in Part IV of the report.

DISCLAIMER

The process of inspecting a facility for the presence of asbestos-containing materials is a complex task. A wide variety of buildings were surveyed offering many inspection challenges. Buildings surveyed ranged from open warehouse storage buildings to large multilevel complexes. Building inspectors were unfamiliar with these buildings and were limited to the amount of time available to inspect all the facilities. Because asbestos has been used in many forms and in may different types of materials, there are over 3,000 different buildings products that have been known to contain asbestos. Thus, it would be impossible (without conducting destructive testing) to locate and identify all building materials.

Westinghouse used trained and certified inspectors to conduct the surveys; however, Westinghouse does not warrant that all materials containing asbestos have been identified. For various reasons, certain materials containing asbestos may not have been found during the survey. Buildings have many hidden spaces which may not have been observed by inspectors unfamiliar with the buildings. In addition, actual quantities and locations of materials found to contain asbestos during our survey may differ from those determined during a more detailed survey or design of an abatement project. If additional suspect materials are discovered during planned demolition or renovation projects, additional samples should be collected to determine the presence of asbestos.

1.0 SURVEY AND SAMPLING PROGRAM

1.1 Survey Procedure

Prior to the initial survey, available building plans and specifications were reviewed for information concerning present building materials and locations. The survey involved an initial walk through of each building to determine locations and classifications of all suspect materials. Suspect materials were classified according to uniformity by color, texture, and similarity. Representative bulk samples were collected from friable, suspect materials and analyzed to determine the asbestos content. Non-friable suspect materials were noted and not sampled unless there was noticeable damage.

The investigation and sample collection of suspect materials were limited to interior spaces of the buildings including crawl spaces. Exterior building components were not addressed with the exception of overhead walkways or other structures that could directly affect personnel. Certain materials such as transite siding on building exteriors were noted if observed.

1.2 Sampling Strategy

The sampling strategy utilized throughout the survey complies with the instructions specified in the contract as well as with EPA 40 CFR Part 763 guidelines. The following instructions outline the sampling scheme utilized during the FMWTC survey:

Thermal System Insulation

1) Minimum of 3 samples collected for each homogeneous area of insulation material.
2) Sufficient representative sample(s) were collected from pipe elbows, fittings, and joints at the discretion of the inspector.
3) In some instances, an insulation material may have been assumed to contain asbestos by the inspector. Thus, one representative sample was collected as verification to determine the actual asbestos content.

Friable Surfacing Materials

1) Minimum of 1000 SF of material present - Collection of a minimum of 3 representative samples.
2) 1000 to 5000 SF of material present - Collection of a minimum of 5 representative samples.

3) Greater than 5000 SF of material present - Collection of a minimum of 7 representative samples.
4) The number of samples of non-friable surfacing materials collected, if any, was determined by the inspector.

Miscellaneous Materials

1) At the discretion of the inspector, sufficient representative samples were collected of miscellaneous materials.

1.3 Sample Analysis Procedures

The bulk samples of suspect material were submitted to Westinghouse Environmental and Geotechnical Services, Inc.'s in-house laboratory for analysis and determination of asbestos type and content.

The bulk samples of suspect materials were analyzed utilizing Polarized Light Microscopy (PLM) coupled with dispersion staining. This technique identifies asbestos fibers based on six unique optical and mineralogical characteristics: morphology, color refractive index, extinction angle, sign of elongation and dispersion staining colors. Asbestos content is expressed on a percentage basis. The EPA recognizes a material as Asbestos Containing Material if an asbestos content of greater than one percent is detected in a representative sample. Our laboratory was previously enrolled in the EPA Bulk Asbestos Sample Quality Assurance Program and is currently accredited with the National Voluntary Laboratory Accreditation (NVLAP) Program administered by the National Institute of Standards and Technology (NIST) formerly the National Bureau of Standards (NBS). Our enrollment number is 1047.

The term non-detected in a sample description is indicative of no asbestiform minerals being observed during the microscopical analysis. When <1% is indicated the material is considered non-asbestos in accordance with the EPA definition for asbestos materials.

The laboratory analysis sheets are assembled by building in Part V of the report.

Note: Where conflicting sample results of similar systems appear, positive results should dictate the determination of asbestos-containing materials as a result of the inconsistencies and variations in material makeup.

1.4 Buildings Surveyed

This asbestos inventory addresses 18 buildings as listed in the contract. The following Table 1 lists the buildings inspected and indicates if asbestos was found to be present in the building. Individual building sections in this report should be consulted for identification of material types determined to contain asbestos.

TABLE 1
BUILDINGS SURVEYED AND SAMPLE RESULT SUMMARY
FLEET AND MINE WARFARE TRAINING CENTER

BUILDING NUMBER	BUILDING NAME	BUILDING FOUND TO CONTAIN FRIABLE ASBESTOS
202	Training Facility	Yes
203	Paint Storage	No
204	Pump House	No
643	Training Facility	No*
645	Training Facility	Yes
647	Training Facility	Yes
649	Storage	No
1303	Wet Trainer	No
1309	Fire Fighting Trainer	No
1310	Fire Fighting Trainer	No
1313	Gear Locker	No
1351	Paint Locker	Yes
1352	Air Compressor Shed	No
1715	Maintenance Shed	No**
1722	Generator Shed	No
1744	Staff Lounge	No
1819	Lawn Shed	No
1834	Laundry	No

* Contains Non-Friable Asbestos Containing Material

** Contains <1% asbestos

1.5 Limitation of Cost Estimates

The Cost estimates in this report are given for preliminary planning and budgetary purposes only. In most instances, removal of asbestos materials identified in buildings is not required if the materials are not damaged or if repairs can be made and the materials are maintained in a satisfactory condition through an Operation and Maintenance Program.

Recommended response actions concerning asbestos materials in each individual building are given on the DAP-MIS forms located in Part IV of the report. Cost estimates given in this report and on the DAP/MIS forms are formulated from the recommended response actions and may include the design, repair, removal or operation and maintenance costs or a combination of these actions necessary to protect the health and environment of the building occupants. Where removal is recommended, material replacement costs are not included. A more detailed cost estimate will be required when actual abatement plans have been decided upon to include cost associated with the projects such as engineering and testing fees, air monitoring costs and contract administration costs and the availability and cost of insurance and bonding.

Other factors that may affect the cost of these projects are scheduling, increases in removal and replacement costs, and changes in regulatory requirements.

2.0 ABATEMENT CONSIDERATIONS AND RECOMMENDATIONS

When recommending response actions for friable asbestos-containing building materials (ACBM) the materials' condition had to first be assessed and classified into one of the following categories:

1) damaged ACBM;
2) significantly damaged ACBM;
3) ACBM with a potential for damage;
4) ACBM with a potential for significant damage; and
5) no damage or potential for damage.

If damaged or significantly damaged thermal system insulation was identified in a building, at least one of the following response actions was recommended:

1) repair the damaged area;
2) removal of the material if not feasible to repair the damage; and
3) maintain all remaining thermal system insulation in an intact state and undamaged condition by implementing an Operations and Maintenance (O&M) Program.

If damaged or significantly damaged surfacing material was identified in a building, at least one of the following response actions was recommended:

1) Repair
2) Removal
3) Enclosure
4) Encapsulation
5) Maintain material under an O&M Program.

If any damaged or significantly damaged miscellaneous material was identified in a building, at least one of the response actions listed in the surfacing material category was recommended.

Regardless of the response actions recommended for friable ACBM identified in buildings, it is strongly advised that an Operations and Maintenance (O&M) Program be developed and implemented as soon as possible. An O&M Program will allow for any immediate repairs or cleanup necessary to protect building occupants from exposure to asbestos fibers and to maintain any asbestos material in a satisfactory state of repair as long as they remain in a building.

All personnel involved in the O&M Program should receive adequate training for conducting activities that will result in the disturbance of ACBM. This training should include, but not be limited to the following:

1) Information regarding the various uses and forms of asbestos.
2) Information on the health effects associated with asbestos exposure.
3) Hands-on training in the use of respiratory protection.
4) Instruction on good work practices for small-scale maintenance activities involving asbestos.

Those personnel conducting activities that disturb ACBM should also be enrolled in a medical surveillance program. Refer to OSHA Regulation Number 29 CFR 1926.58 for specific requirements pertaining to respiratory protection and medical surveillance. It may be helpful to obtain a copy of the Environmental Protection Agency (EPA) document "Guidance for Controlling Asbestos-Containing Materials in Buildings" (EPA 560/5-85-024). This document was prepared by EPA to assist maintenance personnel in implementing operating and maintenance procedures in building containing asbestos.

In conclusion, when actual abatement, renovation or demolition projects are planned that will involve disturbance of ACBM, the work must be conducted by a licensed asbestos removal contractor, (if not within the capability of trained in-house personnel). Procedures for removal should be fully outlined in any engineering specification for asbestos abatement to ensure all federal, state and local regulations are followed and special engineering controls are maintained during removal, transportation and disposal.

3.0 BUILDING DESCRIPTIONS

3.1 Building #202, Training Facility

Description of Building

Building #202 is a 39,119 square foot facility used as a training center. The facility was built in 1956.

Description of Homogeneous Areas and Sample Result Summary

The Table below is a summary of the suspect materials identified during the survey.

Homogeneous Area	Description of Material	Contains Asbestos?
1	Plaster Ceiling	yes
2	Boiler Breeching Insulation	no
3	Boiler Gasket	no
4	Pipe Elbow Insulation	yes
5	Pipe Lagging	no
6	12" x 12" Floor Tile	no*
7	Pipe Elbow Insulation	yes
8	Valve/Joint Insulation	yes
9	Air Duct Mastic	yes
10	9" x 9" Floor Tile	yes

NOTE:

1) Yes indicates that at least one sample of the suspect material contains greater than 1% asbestos.
2) No indicates that all samples of the suspect material contain no asbestos unless noted by an asterisk.

* Contains less than 1% asbestos

Inventory Forms and Recommendations

Additional information concerning samples collected in this building such as quantity, location, and condition are noted on the Asbestos Facility Inventory Forms in Part II of this report. General recommendations for confirmed asbestos-containing materials are also noted on the inventory forms. The laboratory analysis sheets for bulk samples collected in this building are located in Part V of this report.

Cost Estimates

The table below is a summary of rough cost estimates for abatement of confirmed asbestos-containing materials. This estimate may include design, repair, removal, O & M, and other related costs. This estimate should be considered for budgetary purposes only.

Material	Quantity	Total Estimated Abatement Costs
Plaster Ceiling	39,119 sq ft	$ 312,952.00
Pipe Elbow Insulation	37 each	$ 1,000.00
Valve/Joint Insulation	8 L F	$ 100.00
Air Duct Mastic	1,200 sq ft	$ 14,000.00
9" x 9" Floor Tile (including 12" x 12" Floor Tile)	39,119 sq ft	$ 195,595.00

* Recommendations other than removal have been noted on the DAP/MIS forms located in Part IV of this report.

3.2 Building #203, Paint/Flammable Storage

Description of Building

Building #203 is a 64 square foot concrete block structure used for flammable storage. The facility was built in 1956.

Description of Homogeneous Areas and Sample Result Summary

There were no suspect materials noted in this building.

3.3 Building #204, Pump House

Description of Building

Building #204 is an 800 square foot concrete structure which houses various mechanical equipment. The facility was built in 1956.

Description of Homogeneous Areas and Sample Result Summary

The Table below is a summary of the suspect materials identified during the survey.

Homogeneous Area	Description of Material	Contains Asbestos?
1	Water Tank Mastic	no

NOTE:

1) Yes indicates that at least one sample of the suspect material contains greater than 1% asbestos.
2) No indicates that all samples of the suspect material contain no asbestos unless noted by an asterisk.

* Contains less than 1% asbestos

Inventory Forms and Recommendations

Additional information concerning samples collected in this building such as quantity, location, and condition are noted on the Asbestos Facility Inventory Forms in Part II of this report. General recommendations for confirmed asbestos-containing materials are also noted on the inventory forms. The laboratory analysis sheets for bulk samples collected in this building are located in Part V of this report.

* Recommendations other than removal have been noted on the DAP/MIS forms located in Part IV of this report.

3.4 Building #643, Training Facility

Description of Building

Building #643 is a 68,200 square foot facility used for training. The facility was built in 1969.

Description of Homogeneous Areas and Sample Result Summary

The Table below is a summary of the suspect materials identified during the survey.

Homogeneous Area	Description of Material	Contains Asbestos?
1	2' x 4' Ceiling Tile	no
2	12" x 12" Floor Tile	no
3	Air Duct Mastic	yes
4	2' x 2' Ceiling Tile	no
5	Pipe Elbow Insulation	no
6	Valve/Joint Insulation	no
7	Boiler Gasket	no
8	Spray-on Fire Proofing	no

NOTE:

1) Yes indicates that at least one sample of the suspect material contains greater than 1% asbestos.
2) No indicates that all samples of the suspect material contain no asbestos unless noted by an asterisk.

Inventory Forms and Recommendations

Additional information concerning samples collected in this building such as quantity, location, and condition are noted on the Asbestos Facility Inventory Forms in Part II of this report. General recommendations for confirmed asbestos-containing materials are also noted on the inventory forms. The laboratory analysis sheets for bulk samples collected in this building are located in Part V of this report.

Cost Estimates

The table below is a summary of rough cost estimates for abatement of confirmed asbestos-containing materials. This estimate may include design, repair, removal, O & M, and other related costs. This estimate should be considered for budgetary purposes only.

Material	Quantity	Total Estimated Abatement Costs
Air Duct Mastic	9,600 sq ft	$ 115,200.00

* Recommendations other than removal have been noted on the DAP/MIS forms located in Part IV of this report.

3.5 Building #645, Training Facility

Description of Building

Building #645 is a 1,612 square foot facility used for training. The facility was built in 1969.

Description of Homogeneous Areas and Sample Result Summary

The Table below is a summary of the suspect materials identified during the survey.

Homogeneous Area	Description of Material	Contains Asbestos?
1	12" x 12" Floor Tile	yes
2	Pipe Elbow Insulation	yes
3	2' x 4' Ceiling Tile	yes
4	Pipe Mastic	yes

NOTE:

1) Yes indicates that at least one sample of the suspect material contains greater than 1% asbestos.
2) No indicates that all samples of the suspect material contain no asbestos unless noted by an asterisk.

Inventory Forms and Recommendations

Additional information concerning samples collected in this building such as quantity, location, and condition are noted on the Asbestos Facility Inventory Forms in Part II of this report. General recommendations for confirmed asbestos-containing materials are also noted on the inventory forms. The laboratory analysis sheets for bulk samples collected in this building are located in Part V of this report.

Cost Estimates

The table below is a summary of rough cost estimates for abatement of confirmed asbestos-containing materials. This estimate may include design, repair, removal, O & M, and other related costs. This estimate should be considered for budgetary purposes only.

Material	Quantity	Total Estimated Abatement Costs
12" x 12" Floor Tile	350 sq ft	$ 1,750.00
Pipe Elbow Insulation	30 each	$ 750.00
2' x 4' Ceiling Tile	225 sq ft	$ 900.00
Pipe Mastic	30 L F	$ 270.00

* Recommendations other than removal have been noted on the DAP/MIS forms located in Part IV of this report.

3.6 Building #647, Training Facility

Description of Building

Building #647 is a 35,422 square foot facility used for training. The facility was built in 1965.

Description of Homogeneous Areas and Sample Result Summary

The Table below is a summary of the suspect materials identified during the survey.

Homogeneous Area	Description of Material	Contains Asbestos?
1	12" x 12" Floor Tile	no
2	Air Duct Mastic	no
3	Pipe Elbow Insulation	yes
4	Ceiling Tile	no
5	9" x 9" Floor Tile	yes
6	Pipe Elbow Insulation	yes
7	Boiler Breeching Insulation	yes
8	Water Tank Insulation	yes
9	Expansion Tank Insulation	yes
10	Valve/Fitting Insulation	yes

NOTE:

1) Yes indicates that at least one sample of the suspect material contains greater than 1% asbestos.
2) No indicates that all samples of the suspect material contain no asbestos unless noted by an asterisk.

Inventory Forms and Recommendations

Additional information concerning samples collected in this building such as quantity, location, and condition are noted on the Asbestos Facility Inventory Forms in Part II of this report. General recommendations for confirmed asbestos-containing materials are also noted on the inventory forms. The laboratory analysis sheets for bulk samples collected in this building are located in Part V of this report.

Cost Estimates

The table below is a summary of rough cost estimates for abatement of confirmed asbestos-containing materials. This estimate may include design, repair, removal, O & M, and other related costs. This estimate should be considered for budgetary purposes only.

Material	Quantity	Total Estimated Abatement Costs
Pipe Elbow Insulation	88 each	$ 2,200.00
9" x 9" Floor Tile	5,515 sq ft	$ 27,575.00
Boiler Breeching Insulation	225 sq ft	$ 135.00
Tank Insulation	180 sq ft	$ 3,600.00
Valve/Fitting Insulation	25 each	$ 625.00

* Recommendations other than removal have been noted on the DAP/MIS forms located in Part IV of this report.

3.7 Building #649, Storage Facility

Description of Building

Building #649 is a metal structure used for storage. The facility was built in 1967.

Description of Homogeneous Areas and Sample Result Summary

There were no suspect materials noted in this building.

3.8 Building #1303, Wet Trainer

Description of Building

Building #1303 is a 6,237 square foot metal structure used for damage control training. The building was constructed in 1953.

Description of Homogeneous Areas and Sample Result Summary

The Table below is a summary of the suspect materials identified during the survey.

Homogeneous Area	Description of Material	Contains Asbestos?
1	12" x 12" Blue Floor Tile	no
2	12" x 12" Red Floor Tile (under Blue Floor Tile)	no

NOTE:

1) Yes indicates that at least one sample of the suspect material contains greater than 1% asbestos.
2) No indicates that all samples of the suspect material contain no asbestos unless noted by an asterisk.

Inventory Forms and Recommendations

Additional information concerning samples collected in this building such as quantity, location, and condition are noted on the Asbestos Facility Inventory Forms in Part II of this report. General recommendations for confirmed asbestos-containing materials are also noted on the inventory forms. The laboratory analysis sheets for bulk samples collected in this building are located in Part V of this report.

3.9 Building #1309, Fire Fighting Trainer

Description of Building

Building #1309 is a 900 square foot structure used for fire fighting training. The facility was constructed in 1956.

Description of Homogeneous Areas and Sample Result Summary

The Table below is a summary of the suspect materials identified during the survey.

Homogeneous Area	Description of Material	Contains Asbestos?
1	Fire Brick	no

NOTE:

1) Yes indicates that at least one sample of the suspect material contains greater than 1% asbestos.
2) No indicates that all samples of the suspect material contain no asbestos unless noted by an asterisk.

Inventory Forms and Recommendations

Additional information concerning samples collected in this building such as quantity, location, and condition are noted on the Asbestos Facility Inventory Forms in Part II of this report. General recommendations for confirmed asbestos-containing materials are also noted on the inventory forms. The laboratory analysis sheets for bulk samples collected in this building are located in Part V of this report.

3.10 Building #1310, Fire Fighting Trainer

Description of Building

Building #1310 is a 1,228 square foot structure used for fire fighting training. The facility was constructed in 1956.

Description of Homogeneous Areas and Sample Result Summary

The Table below is a summary of the suspect materials identified during the survey.

Homogeneous Area	Description of Material	Contains Asbestos?
1	Fire Brick	no

NOTE:

1) Yes indicates that at least one sample of the suspect material contains greater than 1% asbestos.
2) No indicates that all samples of the suspect material contain no asbestos unless noted by an asterisk.

Inventory Forms and Recommendations

Additional information concerning samples collected in this building such as quantity, location, and condition are noted on the Asbestos Facility Inventory Forms in Part II of this report. General recommendations for confirmed asbestos-containing materials are also noted on the inventory forms. The laboratory analysis sheets for bulk samples collected in this building are located in Part V of this report.

3.11 Building #1313, Fire Fighting Equipment Storage

Description of Building

Building #1313 is a 1,020 square foot metal structure used for storing fire fighting equipment. The facility was constructed in 1956.

Description of Homogeneous Areas and Sample Result Summary

There were no suspect materials noted in this building.

3.12 Building #1351, Paint Locker

Description of Building

Building #1351 is a 90 square foot facility used for paint/flammable storage.

Description of Homogeneous Areas and Sample Result Summary

The Table below is a summary of the suspect materials identified during the survey.

Homogeneous Area	Description of Material	Contains Asbestos?
1	Wall Insulation	yes

NOTE:
1) Yes indicates that at least one sample of the suspect material contains greater than 1% asbestos.
2) No indicates that all samples of the suspect material contain no asbestos unless noted by an asterisk.

Inventory Forms and Recommendations

Additional information concerning samples collected in this building such as quantity, location, and condition are noted on the Asbestos Facility Inventory Forms in Part II of this report. General recommendations for confirmed asbestos-containing materials are also noted on the inventory forms. The laboratory analysis sheets for bulk samples collected in this building are located in Part V of this report.

Cost Estimates

The table below is a summary of rough cost estimates for abatement of confirmed asbestos-containing materials. This estimate may include design, repair, removal, O & M, and other related costs. This estimate should be considered for budgetary purposes only.

Material	Quantity	Total Estimated Abatement Costs
Wall Insulation	300 sq ft	$ 3,000.00

* Recommendations other than removal have been noted on the DAP/MIS forms located in Part IV of this report.

3.13 Building #1352, Air Compressor Shed

Description of Building

Building #1352 is a 100 square foot metal shed which houses an air compressor.

Description of Homogeneous Areas and Sample Result Summary

There were no suspect materials noted in this building.

3.14 Building #1715, Maintenance Shed

Description of Building

Building #1715 is a 1,240 square foot facility used by the maintenance department. The facility was built in 1968.

Description of Homogeneous Areas and Sample Result Summary

The Table below is a summary of the suspect materials identified during the survey.

Homogeneous Area	Description of Material	Contains Asbestos?
1	Plaster Ceiling	no*

NOTE:

1) Yes indicates that at least one sample of the suspect material contains greater than 1% asbestos.
2) No indicates that all samples of the suspect material contain no asbestos unless noted by an asterisk.

* Material contains less than 1% asbestos

Inventory Forms and Recommendations

Additional information concerning samples collected in this building such as quantity, location, and condition are noted on the Asbestos Facility Inventory Forms in Part II of this report. General recommendations for confirmed asbestos-containing materials are also noted on the inventory forms. The laboratory analysis sheets for bulk samples collected in this building are located in Part V of this report.

Cost Estimates

The table below is a summary of rough cost estimates for abatement of confirmed asbestos-containing materials. This estimate may include design, repair, removal, O & M, and other related costs. This estimate should be considered for budgetary purposes only.

Material	Quantity	Total Estimated Abatement Costs
Plaster Ceiling	600 sq ft	$ 5,000.00

* Recommendations other than removal have been noted on the DAP/MIS forms located in Part IV of this report.

3.15 Building #1722, Generator Shed

Description of Building

Building #1722 is a 90 square foot metal structure houses a generator. The facility was built in 1969.

Description of Homogeneous Areas and Sample Result Summary

There were no suspect materials noted in this building.

3.16 Building #1744, Staff Lounge

Description of Building

Building #1744 is a 231 square foot structure used for a lounge and sick bay. The facility was built in 1970.

Description of Homogeneous Areas and Sample Result Summary

There were no suspect materials noted in this building.

3.17 Building #1819, Lawn Equipment Storage

Description of Building

Building #1819 is a 450 square foot metal structure used for storage.

Description of Homogeneous Areas and Sample Result Summary

There were no suspect materials noted in this building.

3.18 Building #1834, Laundry/Storage

Description of Building

Building #1834 is a 500 square foot metal structure used as a laundry and storage facility.

Description of Homogeneous Areas and Sample Result Summary

There were no suspect materials noted in this building.

ASBESTOS FACILITY INVENTORY FORMS

ASBESTOS FACILITY INVENTORY FORM
(for each homogeneous area) Sheet 1 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 57 78 (201)

Homogeneous area # 1 (204) Homo. Area (SF) (LF) 39,119 (205)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102)

Contains friable ACM [Yes/No] Yes (206)

Claimant COMTRALANT (103) EFD Southern Division (104)

Public access [Yes/No] No (207)

POC M.K. Patterson (105) Phone 803/743-1799 (106) Bldg # 202 (107)

Contractor & inspector name Westinghouse / T. Spivey (208)

Inspector Signature, State of Accreditation/Accred. # Timothy Spivey SC 1729

Prop Rec # 200001 (108) Bldg. Area (SF) 39,119 (109)

Survey date 10/15/90 (209)

Area use Training Facility (110) Cat Code 17120 (111) Yr built 1956 (112)

A (301) BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

D I (302) BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B (303) FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

G (311) ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

GS (312) ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DI]duct
[FI]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JI]hot water tank [KI]boiler
[LS]structure fireproofing [MM] vinyl flooring [NI]steam pipe [O]other _____*

39,119 (313A) S (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

DIAMETER in inches for piping. (314)

A (315) QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

A (316) DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 50 Extent: (a) localized ___ (b) distributed ✓ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ✓
Amt. exposed (%): 50 Amt. accessible (%): 0 (within arms reach?) Potential for air erosion? yes
Proximity to repair items?: 1' Influence of vibration ?: No Comments: _____

A (317) CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

A (318) EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

>100 (319) PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

A (320) PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

A,K (330) RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	1	1	1	1	1				
Sample number	202-01	202-02	202-03	202-04	202-09				
(%)	2 (341)	2 (343)	<1 (345)	2 (347)	3 (349)	(351)	(353)	(355)	(357)
TYPE	A (342)	A (344)	A (346)	A (348)	A (350)	(352)	(354)	(356)	(358)

C (359) RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

202-01	Rm ~~207~~ 201
-02	207
-03	1st floor hallway
-04	Rm 125
-09	Rm 213

This material is severely damaged and highly friable.

The plaster ceiling is exposed in some areas but most of the ceiling is above a dropped acoustical (2'x4') ceiling.

(For each homogeneous area) Sheet 2 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score -0- (201)

Homogeneous area # 2 (204) Homo. Area (SF/LF) 20 (205)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102)

Contains friable ACM [Yes/No] No (206)

Claimant COMTRALANT (103) EFD Southern Division (104)

Public access [Yes/No] No (207)

POCM K. Patterson (105) Phone 803/743-1799 (106) Bldg # 202 (107)

Contractor & inspector name Westinghouse T. Grimy (208)

Inspector Signature, State of Accreditation/Accred. #

Timothy Grimy SC 1729

Prop Rec # 200001 (108) Bldg. Area (SF) 39,119 (109)

Survey date 10/15/90 (209)

Area use Training Facility (110) Cat Code 17120 (111) Yr built 1956 (112)

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

D I 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

B 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

O 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [CI]duct
[FI]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Boiler Breaching*

20 (313A) L (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

18 (314) DIAMETER in inches for piping.

A 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

C 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 0 Extent: (a) localized___ (b) distributed___ Type: (a) Deteriorating___ (b) Water___ (c) Physical___
Amt. exposed (%):____ Amt. accessible (%):____ (within arms reach?) Potential for air erosion?____
Proximity to repair items?:____ Influence of vibration ?:___ Comments:_____

D 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

B 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

16 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

C 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	2	2	2						
Sample number	4169	4163	4175						
(%)	0 (341)	0 (343)	0 (345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	(342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

E 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

nclude comments on NAVOSH DAP/MIS format in appropriate narrative sections

aboratory name and address:

Samples collected in boiler room

(for each homogeneous area) Sheet 3 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score -0- (201)

Homogeneous area # 3 (204) Homo. Area (SF) (LF) 10 (205)

UICN62603 (101) Activity FMWTC Charleston, S.C. (102)

Contains friable ACM (Yes/No) No (206)

Claimant COMTRALANT (103) EFD Southern Division (104)

Public access (Yes/No) No (207)

POC M. K. Patterson (105) Phone 803/743-1799 (106) Bldg # 202 (107)

Contractor & inspector name Westinghouse/T. Spivey (208)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

Prop Rec # 200001 (108) Bldg. Area (SF) 39,119 (109)

Survey date 90/15/90 (209)

Area use Training Facility (110) Cat Code 17120 (111) Yr built 1956 (112)

A (301) BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

DI (302) BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B (303) FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

E (311) ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

CM (312) ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [CI]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KI]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

10 (313A) L (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping ___ (314) DIAMETER in inches for piping.

A (315) QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

C (316) DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 0 Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ___ Amt. accessible (%): ___ (within arms reach?) Potential for air erosion? ___
Proximity to repair items?: ___ Influence of vibration ?: ___ Comments: _____

D (317) CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

B (318) EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

16 (319) PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

C (320) PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA (330) RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	3								
Sample number	4164								
(%)	0 (341)	(343)	(345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	(342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

E (359) RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

nclude comments on NAVOSH DAP/MIS format in appropriate narrative sections

boratory name and address:

4164- Boiler Room

ASBESTOS FACILITY INVENTORY FORM
(for each homogeneous area) Sheet 4 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score (201) D 54

Homogeneous area # (204) 4 Homo. Area (SF/LF) (205) 10 ea

Contains friable ACM [Yes/No] (206) Yes

Public access [Yes/No] (207) no

Contractor & inspector name (208) Westinghouse T. Spivey

Inspector Signature, State of Accreditation/Accred. #
Timothy Spivey SC1729

Survey date (209) 10/15/90

UICN62603 (101) Activity (102) FMWTC Charleston, S.C.

Claimant (103) COMTRALANT EFD (104) Southern Division

POCM (105) K. Patterson Phone (106) 803/743-1799 Bldg # (107) 202

Prop Rec # (108) 200001 Bldg. Area (SF) (109) 39,119

Area use (110) Training Facility Cat Code (111) 17120 Yr built (112) 1956

(301) A BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

(302) D BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

(303) B FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

(311) B ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

(312) O ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line[GS] surface coating[HM]ceiling tile[IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing[MM] vinyl flooring [NT]steam pipe [O]other Pipe Elbow *

(313A) 10 ea (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

(314) 4-6 DIAMETER in inches for piping.

(315) QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

(316) B DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 10 Extent: (a) localized ___ (b)distributed ✓ Type: (a)Deteriorating ✓ (b)Water ✓ (c) Physical ✓
Amt. exposed (%): 100 Amt. accessible (%): 50 (within arms reach?) Potential for air erosion? No
Proximity to repair items?: 1' Influence of vibration ?: yes Comments:_____

(317) B CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

(318) A EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

(319) >100 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

(320) A PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

(330) G,H,K RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	4	4	4	4					
Sample number	4172	3262	4173	4157					
(%) (341, 343, 345, 347, 349, 351, 353, 355, 357)	50	3	18	0					
TYPE (342, 344, 346, 348, 350, 352, 354, 356, 358)	A	A	A						

(359) A RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH OAP/MIS format in appropriate narrative sections

Laboratory name and address:

4192 - Rm 126 (2)
3262 - Rm 112 - (2)
4173 - ASW wim AH Room (4)
4157 - Boiler Rm (2)

There are insulated pipe elbows above the plaster ceiling in this building. The elbows are inaccessible for sampling. It can be assumed that the elbows are ACM.

NAVFAC FORM 5100/32 rev 05/01/89

ASBESTOS FACILITY INVENTORY FORM
(For each homogeneous area) Sheet 5 of 10

Request activity fill out numbers 101-112 prior to inspection.

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102)

Claimant COMTRALANT (103) EFD Southern Division (104)

POCM K. Patterson (105) Phone 803/743-1799 (106) Bldg # 202 (107)

Prop Rec # 200001 (108) Bldg. Area (SF) 39,119 (109)

Area use Training Facility (110) Cat Code 17120 (111) Yr built 1956 (112)

Rating Score 0 (201)

Homogeneous area # 5 (204) Homo. Area (SF/LF) 10 (205)

Contains friable ACM [Yes/No] No (206)

Public access [Yes/No] No (207)

Contractor & inspector name Westinghouse T. Spivey (208)

Inspector Signature, State of Accreditation/Accred. # Timothy Spivey SC1729

Survey date 10/15/90 (209)

A (301) BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

D,I (302) BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B (303) FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

B (311) ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

O (312) ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DI]duct
[FI]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Lagging*

10 (313A) L (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

6 (314) DIAMETER in inches for piping.

A (315) QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

C (316) DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 2 Extent: (a) localized ___ (b) distributed ✓ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ✓
Amt. exposed (%): 100 Amt. accessible (%): 100 (within arms reach?) Potential for air erosion? No
Proximity to repair items?: 1' Influence of vibration ?: No Comments: _____

B (317) CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

A (318) EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

>100 (319) PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

A (320) PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

N/A (330) RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	5								
Sample number	4190								
(%)	0 (341)	(343)	(345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	(342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

E (359) RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

4190 - Rm 112

This material is also located above the plaster ceiling, access could not be obtained to retrieve a sample.

(for each homogeneous area) Sheet 6 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score (201) PD 7

Homogeneous area # (204) 6 Homo. Area (SF/LF) (205) 5400

UIC N62603 (101) Activity EMWTC Charleston, S.C. (102)

Contains friable ACM (Yes/No) (206) No

Claimant COMTRALANT (103) CFD Southern Division (104)

Public access (Yes/No) (207) No

POCM K. Patterson (105) Phone 803/743-1799 (106) Bldg # 202 (107)

Contractor & inspector name (208) Westinghouse T. Spivey

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

Prop Rec # 200001 (108) Bldg. Area (SF) (109) 39,119

Survey date (209) 10/16

Area use (110) Training Facility Cat Code (111) 17120 Yr built (112) 1956

A BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
301 [A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

D I BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
302 [A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
303 [A] critical [B] essential [C] non-essential

I ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
311 [D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other Floor tile *

O ASBESTOS FUNCTION: Enter one of following codes
312 [AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DI]duct
[FI]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Floor tile 12"*

5400 S
313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

___ 314 DIAMETER in inches for piping.

A QUANTITY RANGE: Enter letter for closest range
315 [A] >5000 units [B] 1000-5000 units [C] <1000 units

D DEGREE OF FRIABILITY: Enter letter describing friability
316 [A] high [B] moderate [C] low [D] non

DAMAGE: Percent O Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ____ Amt. accessible (%): ____ (within arms reach?) Potential for air erosion? ____
Proximity to repair items?: ____ Influence of vibration ?: ____ Comments: _____

D CONDITION: Enter letter describing condition
317 [A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

A EXPOSURE POTENTIAL: Enter letter best describing exposure potential
318 [A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

>100 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos
319

>100 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
320 [A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

H RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
330 [A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	6	6	6	6	6	6				
Sample number	202 ES	202-07	202-08	202-10	202-12	202-13				
(%)	<1	0	<1	<1	0	<1				
	341	343	345	347	349	351	353	355	357	
TYPE	C		A	A		A				
	342	344	346	348	350	352	354	356	358	

D RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos
359

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

laboratory name and address:

✓ 202-05	12" Green F.T.	Rm 122	342
202-07	12" White F.T.	Rm 213	
✓ 08	12" Tan F.T.	8nd Deck P'way	1454
✓ 10	12" Brown F.T.	1st Deck Stairwell	(~~1280~~) 2809
12	12" Blue F.T.	Rm 112	
✓ 13	12" Orange F.T.	Quarterdeck office	(~~334~~) 331
	12" Gray FT	Rm 123	380

(For each homogeneous area) Sheet 7 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score (201) D 28

Homogeneous area # (204) 7 Homo. Area (SF/LF) (205) 22a

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102)

Contains friable ACM [Yes/No] (206) Yes

Claimant COMTRALANT (103) EFD Southern Division (104)

Public access [Yes/No] (207) No

POCM K. Patterson (105) Phone 803/743-1799 (106) Bldg # (107) 702

Contractor & inspector name (208) Westinghouse / T. Gainey

Inspector Signature, State of Accreditation/Accred. #

Prop Rec # (108) 200001 Bldg. Area (SF) (109) 39,119

Timothy Gainey SC 1729

Area use (110) Training Facility Cat Code (111) 17120 Yr built (112) 1956

Survey date (209) 10/16/90

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

E 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

DI 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

B 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

Q 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [CI]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Pipe Elbow *

27 ea 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

3-8 (314) DIAMETER in inches for piping.

C 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

B 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 2 Extent: (a) localized___ (b) distributed ✓ Type: (a) Deteriorating___ (b) Water___ (c) Physical ✓
Amt. exposed (%): 100 Amt. accessible (%): 50 (within arms reach?) Potential for air erosion? No
Proximity to repair items?: 11 Influence of vibration ?: yes Comments:_____

B 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

B 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

16 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

C 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

H 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	7	7	7	7					
Sample number	4187	4198	4153	4195					
(%)	2 (341)	0 (343)	25 (345)	11 (347)	(349)	(351)	(353)	(355)	(357)
TYPE	B (342)	(344)	A (346)	A (348)	(350)	(352)	(354)	(356)	(358)

B 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

Samples Collected in Rm ~~103B~~ 130B (Mech Rm)

3-4"
3-6"
9-8"
12-3"

NAVFAC FORM 5100/32 rev 05/01/89

(For each homogeneous area) Sheet 8 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 PDL3

Homogeneous area # 204 8 Homo. Area (SF (LF) 205 8

UIC N62603 101 Activity 102 FMWTC Charleston, S.C.

Contains friable ACM [Yes/No] 206 Yes

Claimant 103 COMTRALANT EFD 104 Southern Division

Public access [Yes/No] 207 No

Contractor & inspector name 200 Westinghouse / T. Spivey

POCM 105 K. Patterson Phone 106 803/743-1799 Bldg # 107 202

Inspector Signature, State of Accreditation/Accred. #

Prop Rec # 108 200001 Bldg. Area (SF) 109 39,119

Timothy Spivey SC 1729

Area use 110 Training Facility Cat Code 111 17120 Yr built 112 1956

Survey date 209 1/16/90

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

E 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

D I 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

B 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

O 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [ET]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Valve/Joint mud

8 313A 6 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

10 314 DIAMETER in inches for piping.

C 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

C 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 0 Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ____ Amt. accessible (%): ____ (within arms reach?) Potential for air erosion? ____
Proximity to repair items?: ____ Influence of vibration ?: ___ Comments: _____

D 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

B 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

16 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

C 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

H,K 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	8								
Sample number	4178								
(%)	3								
	341	343	345	347	349	351	353	355	357
TYPE	B								
	342	344	346	348	350	352	354	356	358

C 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

clude comments on NAVOSH DAP/MIS format in appropriate narrative sections

aboratory name and address:

Rm 130A Mech Rm main water line
Approx 8 LF of mudded pipe includes 2 valves

(for each homogeneous area) Sheet 9 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 PD 14

Homogeneous area # 204 9 Homo. Area (SF/LF) 205 1200

UIC 101 N62603 Activity 102 FMWTC Charleston, S.C.

Contains friable ACM [Yes/No] 206 No

Claimant 103 COMTRALANT EFD 104 Southern Division

Public access [Yes/No] 207 No

POCM 105 K. Patterson Phone 106 803/743-1799 Bldg # 107 202

Contractor & inspector name 208 Westinghouse / T. Spivey

Inspector Signature, State of Accreditation/Accred. #

Prop Rec # 108 200001 Bldg. Area (SF) 109 37,119

Survey date 209 10/16/90

Area use 110 Training Facility Cat Code 111 17120 Yr built 112 1956

301 A BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

302 P BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

303 B FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

311 G ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

312 O ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [CI]duct
[FI]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JI]hot water tank [KI]boiler
[LS]structure fireproofing [MM] vinyl flooring [NI]steam pipe [O]other Duct Mastic*

313A 1200 313B S QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

314 ___ DIAMETER in inches for piping.

315 B QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 D DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent O Extent: (a) localized___ (b) distributed___ Type: (a) Deteriorating___ (b) Water___ (c) Physical___
Amt. exposed (%): ____ Amt. accessible (%): ____ (within arms reach?) Potential for air erosion?____
Proximity to repair items?:___ Influence of vibration ?:___ Comments:_____

317 D CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

318 A EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

319 >100 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

320 A PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

330 G,H RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	9								
Sample number	202-06								
(%)	11/4	341	343	345	347	349	351	353	355	357
TYPE	A/C	342	344	346	348	350	352	354	356	358

359 B RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

:clude comments on NAVOSH DAP/MIS format in appropriate narrative sections

:boratory name and address:

202-06 ASW Passageway

Duct located in ASW wing of building, above the Ceiling.

:AC FORM 5100/32 rev 05/01/89

(for each homogeneous area) Sheet 10 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score (201) D 21

Homogeneous area # (204) 10 Homo. Area (SF/LF) (205) 39,119

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102)

Contains friable ACM (Yes/No) (206) No

Claimant COMTRALANT (103) EFD Southern Division (104)

Public access (Yes/No) (207) No

POCM K. Patterson (105) Phone 803/743-1799 (106) Bldg # (107) 202

Contractor & inspector name (208) Westinghouse T. Spivey

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

Prop Rec # (108) 200001 Bldg. Area (SF) (109) 39,119

Survey date (209) 10/16

Area use (110) Training Facility Cat Code (111) 17120 Yr built (112) 1956

(301) A BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

(302) D BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

(303) B FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

(311) I ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other Floor tile *

(312) P ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [ET]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other 9" Floor tile *

(313A) 39,119 (313B) S QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

(314) ___ DIAMETER in inches for piping.

(315) A QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

(316) D DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 5 Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ✓
Amt. exposed (%): 100 Amt. accessible (%): 100 (Within arms reach?) Potential for air erosion? No
Proximity to repair items?: NA Influence of vibration ?: yes Comments: _____

(317) B CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

(318) A EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

(319) >100 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

(320) A PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

(330) G, H, K RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	11								
Sample number	202-11								
(%)	8 (341)	(343)	(345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	A (342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

(359) C RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

This floor tile is located throughout the building, mostly under 12" floor tiles.
Rm-107 (where sample was collected) has exposed 9" Black F.T.

NAVFAC FORM 5100/32 rev 05/01/89

(for each homogeneous area) Sheet 1 of 4

Request activity fill out numbers 101-112 prior to inspection.

Rating Score PD10 (201)

Homogeneous area # 1 (204) Homo. Area (SF/LF) 350 (205)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102)

Contains friable ACM [Yes/No] No (206)

Claimant COMTRALANT (103) EFD Southern Division (104)

Public access [Yes/No] No (207)

POCM K. Patterson (105) Phone 803/743-1799 (106) Bldg # 6645 (107)

Contractor & inspector name Westinghouse / T. Spivey (208)

Inspector Signature, State of Accreditation/Accred. #

Prop Rec # 210006 (108) Bldg. Area (SF) 1612 (109)

Timothy Spivey SC1729

Survey date 10/15/90 (209)

Area use Training Facility (110) Cat Code 17120 (111) Yr built 1969 (112)

A (301) BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

K (302) BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B (303) FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

D (311) ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other Floortile/mastic

O (312) ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [EI]duct
[FI]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JI]hot water tank [KI]boiler
[LS]structure fireproofing [MM] vinyl flooring [NI]steam pipe [O]other 12" Floortile/Mastic

350 (313A) S (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

___ (314) DIAMETER in inches for piping.

C (315) QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

D (316) DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 0 Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): 0 Amt. accessible (%): 0 (within arms reach?) Potential for air erosion? No
Proximity to repair items?: NA Influence of vibration ?: NA Comments: _____

D (317) CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

A (318) EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

14 (319) PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

C (320) PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

H (330) RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	1	1	1	1					
Sample number	645-01	645-02	645-03	645-05					
(%)	0 (341)	0 (343)	<1 (345)	7 (347)	(349)	(351)	(353)	(355)	(357)
TYPE	(342)	(344)	A (346)	A (348)	(350)	(352)	(354)	(356)	(358)

G (359) RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

645-01 12" Gold F.T.
645-02 12" Blue F.T.
645-03 Red F.T. under Blue F.T. 16x10 103
645-05 White 12" F.T. Rm 105 31'x21'

(For each homogeneous area) Sheet 2 of 4

Request activity fill out numbers 101-112 prior to inspection.

UIC N62603 (101) Activity EFWTC Charleston, S.C. (102)

Claimant COMTRALANT (103) EFD Southern Division (104)

POCM K. Patterson (105) Phone 803/743-1799 (106) Bldg # 645 (107)

Prop Rec # 210006 (108) Bldg. Area (SF) 1612 (109)

Area use Training Facility (110) Cat Code 17120 (111) Yr built 1969 (112)

Rating Score (201) D 46

Homogeneous area # (204) 2 Homo. Area (SF/LF) (205) 30 ea

Contains friable ACM [Yes/No] (206) Yes

Public access [Yes/No] (207) No

Contractor & inspector name (208) Westinghouse T. Spivey

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey

Survey date (209) 10/18/90

A (301) BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

K (302) BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B (303) FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

B (311) ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

Q (312) ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [OM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other pipe elbows*

30 ea (313A) (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

4" (314) DIAMETER in inches for piping.

A (315) QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

A (316) DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 15 Extent: (a) localized ___ (b) distributed ✓ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ✓
Amt. exposed (%): 100 Amt. accessible (%): 0 (within arms reach?) Potential for air erosion? ___
Proximity to repair items?: ___ Influence of vibration ?: ___ Comments: _____

B (317) CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

A (318) EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

14 (319) PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

C (320) PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

F,G,H,K (330) RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	2	2	2						
Sample number	4147	4158	4171						
(%)	35 (341)	28 (343)	0 (345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	A (342)	A (344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

B (359) RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

4147- Phase Rm 102 Door

ASBESTOS FACILITY INVENTORY FORM
(for each homogeneous area) Sheet 3 of 4

Request activity fill out numbers 101-112 prior to inspection.

Rating Score (201) 39

Homogeneous area # (204) 3 Homo. Area (SF/LF) (205) 225

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102)

Contains friable ACM (Yes/No) (206) Yes

Claimant COMTRALANT (103) EFD Southern Division (104)

Public access (Yes/No) (207) No

POCM K. Patterson (105) Phone 803/743-1790 (106) Bldg #645 (107)

Contractor & inspector name (208) Westinghouse / T. Spivey

Inspector Signature, State of Accreditation/Accred. #
Timothy Spivey SC1229

Prop Rec # 210006 (108) Bldg. Area (SF) 1612 (109)

Survey date (209) 10/18/90

Area use Training Facility (110) Cat Code 17120 (111) Yr built 1969 (112)

A (301) BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

K (302) BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

B (303) FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

E (311) ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

HM (312) ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [OM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

225 (313A) S (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping ___ (314) DIAMETER in inches for piping.

A (315) QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

B (316) DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 2 Extent: (a) localized___ (b) distributed ✓ Type: (a) Deteriorating___ (b) Water ✓ (c) Physical ✓
Amt. exposed (%): 100 Amt. accessible (%): 0 (within arms reach?) Potential for air erosion?___
Proximity to repair items?:___ Influence of vibration ?:___ Comments:_____

B (317) CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

A (318) EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

14 (319) PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

C (320) PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (319)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

G,H,K (330) RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	3								
Sample number	645-04								
(%)	1/3 (341)	(343)	(345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	A/B (342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

C (359) RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

24x14 Rm 101

ASBESTOS FACILITY INSPECTION FORM
(for each homogeneous area) Sheet 4 of 4

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 D39

Homogeneous area # 204 4 Homo. Area (SF/LF) 205 30

UIC N62603 101 Activity FMWTC Charleston, S.C. 102

Contains friable ACM (Yes/No) 206 No

Claimant COMTRALANT 103 EFD Southern Division 104

Public access (Yes/No) 207 No

Contractor & inspector name 208 Westinghouse/T. Spivey

POCM K. Patterson 105 Phone 803/743-1799 106 Bldg # 107 645

Inspector Signature, State of Accreditation/Accred. # Timothy Spivey SC 1729

Prop Rec # 210006 108 Bldg. Area (SF) 109 1612

Survey date 209 10/18/90

Area use 110 Training Facility Cat Code 111 17120 Yr built 112 1969

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

K 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

B 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

Q 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [CT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other pipe mastic*

30 313A L 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

4 314 DIAMETER in inches for piping.

C 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

B 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 2 Extent: (a) localized ___ (b) distributed ✓ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ✓
Amt. exposed (%): 100 Amt. accessible (%): 50 (within arms reach?) Potential for air erosion? No
Proximity to repair items?: 1' Influence of vibration ?: No Comments: _____

B 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

A 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

14 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

C 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

F,G,H,K 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	4								
Sample number	4162								
(%)	5/3								
	341	343	345	347	349	351	353	355	357
TYPE	A/C								
	342	344	346	348	350	352	354	356	358

C 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

Sample Collected in Engine lab.

ASBESTOS FACILITY ASSESSMENT FORM
(for each homogeneous area) Sheet 1 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 -0-

Homogeneous area # 204 1 Homo. Area (SF/LF) 205 NA

UIC N62603 101 Activity FMWTC Charleston, S.C. 102

Contains friable ACM [Yes/No] 206 No

Claimant COMTRALANT 103 EFD Southern Division 104

Public access [Yes/No] 207 No

POCM K. Patterson 105 Phone 803/743-1799 106 Bldg # 647 107

Contractor & inspector name 208 Westinghouse T. Spivey

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

Prop Rec # 210001 108 Bldg. Area (SF) 109 35,422

Survey date 209 10/17/90

Area use 110 Training Facility Cat Code 111 17120 Yr built 112 1965

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

U 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other lounge*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

I 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other Floor tile*

O 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [ET]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Floor tile*

NA 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping ___ 314 DIAMETER in inches for piping.

NA 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ___ Amt. accessible (%): ___ (within arms reach?) Potential for air erosion? ___
Proximity to repair items?: ___ Influence of vibration ?: ___ Comments: _____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (319)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	1	1	1						
Sample number	647-01	647-04	647-10						
(%)	0 (341)	0 (343)	0 (345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	(342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

E 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH OAP/MIS format in appropriate narrative sections

Laboratory name and address:

647-01	Rm 140	14'x12'	12" white
" -04	Rm 137	12" Tan	300
647-10	Rm 240	12" Blue	

NAVFAC FORM 5100/32 rev 05/01/89

(For each homogeneous area) Sheet 2 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score -0- (201)

Homogeneous area # 2 (204) Homo. Area (SF/LF) NA (205)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102)

Contains friable ACM [Yes/No] No (206)

Claimant COMTRALANT (103) EFD Southern Division (104)

Public access [Yes/No] NO (207)

POCM K. Patterson (105) Phone 803/743-1799 (106) Bldg # 647 (107)

Contractor & inspector name Westinghouse T. Spivey (208)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

Prop Rec # 210001 (108) Bldg. Area (SF) 35,422 (109)

Survey date 10/12/90 (209)

Area use Training Facility (110) Cat Code 17120 (111) Yr built 1965 (112)

A (301) BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

D (302) BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

B (303) FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

G (311) ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

O (312) ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Duct Mastic*

NA (313A 313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

___ (314) DIAMETER in inches for piping.

N (315) QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

___ (316) DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized___ (b) distributed___ Type: (a) Deteriorating___ (b) Water___ (c) Physical___
Amt. exposed (%):____ Amt. accessible (%):____ (within arms reach?) Potential for air erosion?____
Proximity to repair items?:____ Influence of vibration ?:___ Comments:_____

NA (317) CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA (318) EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA (319) PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA (320) PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA (330) RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area # 2 ____ ____ ____ ____ ____ ____ ____ ____

Sample number 64202 ____ ____ ____ ____ ____ ____ ____ ____

(%) 0 (341) ____ (343) ____ (345) ____ (347) ____ (349) ____ (351) ____ (353) ____ (355) ____ (357)

TYPE ____ (342) ____ (344) ____ (346) ____ (348) ____ (350) ____ (352) ____ (354) ____ (356) ____ (358)

E (359) RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

647-02 Rm 126

(for each homogeneous area) Sheet 3 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score (201) PD 28

Homogeneous area # (204) 3 Homo. Area (SF/LF) (205) 13 ea

UIC (101) N62603 Activity (102) FMWTC Charleston, S.C.

Contains friable ACM [Yes/No] (206) Yes

Claimant (103) COMTRALANT EFD (104) Southern Division

Public access [Yes/No] (207) No

POCM (105) K. Patterson Phone (106) 803/743-1799 Bldg # (107) 647

Contractor & inspector name (208) Westinghouse T. Spivey

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

Prop Rec # (108) 210001 Bldg. Area (SF) (109) 35,422

Survey date (209) 10/17/90

Area use (110) Training Facility Cat Code (111) 17120 Yr built (112) 1945

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

P 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

B 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

O 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Pipe Elbow*

13 ea 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

4 314 DIAMETER in inches for piping.

A 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

C 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 0 Extent: (a) localized___ (b) distributed___ Type: (a) Deteriorating___ (b) Water___ (c) Physical___
Amt. exposed (%):____ Amt. accessible (%):_____ (within arms reach?) Potential for air erosion?____
Proximity to repair items?:____ Influence of vibration ?:___ Comments:_____

D 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

A 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

>100 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

A 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

G,H 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	3								
Sample number	3273								
(%)	2 (341)	(343)	(345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	B (342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

C 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH OAP/MIS format in appropriate narrative sections

Laboratory name and address:

3273 - 6" elbow above ceiling outside Rm 126 double door.

Elbows in this HA are located above ceiling

ASBESTOS FACILITY INVENTORY FORM
(For each homogeneous area) Sheet 4 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 0

Homogeneous area # 204 4 Homo. Area (SF/LF) 205 NA

UIC N62603 101 Activity 102 FMWTC Charleston, S.C.

Contains friable ACM (Yes/No) 206 No

Claimant 103 COMTRALANT [FO 104 Southern Division

Public access (Yes/No) 207 No

Contractor & inspector name 208 Westinghouse/T. Spivey

POC 105 M.K. Patterson Phone 106 803/743-1799 Bldg # 107 647

Inspector Signature, State of Accreditation/Accred. #
Timothy Spivey SC1729

Prop Rec # 108 210001 Bldg. Area (SF) 109 35,422

Survey date 209 10/17/80

Area use 110 Training Facility Cat Code 111 17120 Yr built 112 1965

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

P 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

E 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

HM 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DI]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

NA 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

314 DIAMETER in inches for piping.

A 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ____ Amt. accessible (%): ____ (within arms reach?) Potential for air erosion? ____
Proximity to repair items?: ____ Influence of vibration ?: ___ Comments: _____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	4	4							
Sample number	642-03	64209							
(%)	0 (341)	0 (343)	(345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	(342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

E 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

647-03 outside Rm 126 double door.

647-09 Rm 240

ASBESTOS FACILITY INVENTORY FORM
(for each homogeneous area) Sheet 5 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 PD14

Homogeneous area # 204 5 Homo. Area (SF/LF) 205 5515

Contains friable ACM [Yes/No] 206 No

Public access [Yes/No] 207 No

Contractor & inspector name 208 Westinghouse / T. Spivey

Inspector Signature, State of Accreditation/Accred. #
Timothy Spivey SC1729

Survey date 209 10/17/90

UIC 101 N62603 Activity 102 FMWTC Charleston, S.C.

Claimant 103 COMTRALANT EFD 104 Southern Division

POCM 105 K. Patterson Phone 106 803/743-1799 Bldg # 107 647

Prop Rec # 108 210001 Bldg. Area (SF) 109 35,422

Area use 110 Training Facility Cat Code 111 17120 Yr built 112 1965

301 A BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

302 D BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

303 B FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

311 F ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other Floor tile *

312 O ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [OM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other 9" Floor tile *

313A 5515 313B S QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping ___ 314 DIAMETER in inches for piping.

315 A QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 D DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 0 Extent: (a) localized___ (b)distributed___ Type: (a)Deteriorating___ (b)Water___ (c) Physical___
Amt. exposed (%):_____ Amt. accessible (%):_____ (within arms reach?) Potential for air erosion?___
Proximity to repair items?:___ Influence of vibration ?:___ Comments:_____

317 D CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

318 A EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

319 100 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

320 A PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

330 G,H RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	5	5	5	5					
Sample number	647-05	647-06	647-07	647-08					
(%)	11 (341)	11 (343)	6 (345)	<1 (347)	(349)	(351)	(353)	(355)	(357)
TYPE	A (342)	A (344)	A (346)	A (348)	(350)	(352)	(354)	(356)	(358)

359 C RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

647-05 9" tan F.T. Rm 231 352 sq Ft.
" 06 9" Green F.T. Rm 226 1520 sq Ft.
" 07 9" Gray F.T. Rm 208, 238, 237 3616 Sq Ft.
" 08 9" Tan under 12" blue Room 240 24 Sq Ft.

(For each homogeneous area) Sheet 6 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 231

Homogeneous area # 204 6 Homo. Area (SF/LF) 205 75 ea

UIC N62603 101 Activity FMWTC Charleston, S.C. 102

Contains friable ACM (Yes/No) 206 Yes

Claimant COMTRALANT 103 CFU Southern Division 104

Public access (Yes/No) 207 No

Contractor & inspector name 208 Westinghouse / T. Spivey

POC M.K. Patterson 105 Phone 803/743-1799 106 Bldg # 107 647

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

Prop Rec # 108 210001 Bldg. Area (SF) 109 35,422

Survey date 209 10/17/90

Area use 110 Training Facility Cat Code 111 17120 Yr built 112 1965

301 A BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

302 F BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

303 B FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

311 B ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

312 O ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [CM]gasket/seal [PM]transite [DM]asbestos-cement pipe [EI]duct
[FI]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JI]hot water tank [KI]boiler
[LS]structure fireproofing [MM] vinyl flooring [NI]steam pipe [O]other pipe Elbows*

313A 75 313B ea QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

314 2-12 DIAMETER in inches for piping.

315 C QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 A DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 10 Extent: (a) localized ___ (b) distributed ✓ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ✓
Amt. exposed (%): 10 Amt. accessible (%): 50 (Within arms reach?) Potential for air erosion? No
Proximity to repair items?: 1' Influence of vibration ?: yes Comments: _____

317 B CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

318 B EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

319 16 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

320 C PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

330 F, H, K RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	6	6	6	6	6	6				
Sample number	4177	4189	3271	4179	4199	4182				
(%)	2/2 (341)	10 (343)	2 (345)	40 (347)	2 (349)	<1/4 (351)	(353)	(355)	(357)	
TYPE	A/B (342)	B (344)	B (346)	A (348)	B (350)	A/B (352)	(354)	(356)	(358)	

359 B RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

4177 - 8" elbow
4189 - 6"
3271 - 4"
4179 - 3"
4199 - 2"
4182 - 12"

Sampled in Boiler Room

(For each homogeneous area) Sheet 7 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 PD16

Homogeneous area # 204 7 Homo. Area (SF/LF) 205 15

UICN62603 101 Activity 102 FMWTC Charleston, S.C.

Contains friable ACM (Yes/No) 206 Yes

Claimant 103 COMTRALANT EFD 104 Southern Division

Public access (Yes/No) 207 No

POCM 105 K. Patterson Phone 106 803/743-1799 Bldg # 107 647

Contractor & inspector name 208 Westinghouse T. Spivey

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

Prop Rec # 108 210001 Bldg. Area (SF) 109 35,422

Survey date 209 10/17/90

Area use 110 Training Facility Cat Code 111 17120 Yr built 112 1965

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

F 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

B 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

O 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [ET]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Boiler Breeching*

15 313A L 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

8 314 DIAMETER in inches for piping.

A 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

C 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent O Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ___ Amt. accessible (%): ___ (within arms reach?) Potential for air erosion? ___
Proximity to repair items?: ___ Influence of vibration ?: ___ Comments: _____

D 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

B 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

16 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

C 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (319)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

H,K 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	7	7	7						
Sample number	4180	4165	4156						
(%)	7/40 (341)	10/50 (343)	10/40 (345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	A/B (342)	A/B (344)	A/B (346)	(348)	(350)	(352)	(354)	(356)	(358)

A 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

Collected in Boiler Room

ASBESTOS FACILITY INVENTORY
(for each homogeneous area) Sheet 8 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 D 28

Homogeneous area # 204 8 Homo. Area (SF/LF) 205 120

UIC N62603 101 Activity 102 EMWTC Charleston, S.C.

Contains friable ACM [Yes/No] 206 Yes

Claimant 103 COMTRALANT EFD 104 Southern Division

Public access [Yes/No] 207 No

POCM 105 K. Patterson Phone 106 803/743-1799 Bldg # 107 647

Contractor & inspector name 208 Westinghouse / T. Spivey

Inspector Signature, State of Accreditation/Accred. #

Prop Rec # 108 210001 Bldg. Area (SF) 109 35,422

Timothy Spivey SC 1729

Survey date 209 10/17/90

Area use 110 Training Facility Cat Code 111 17120 Yr built 112 1965

301 A BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

302 F BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

303 B FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

311 B ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

312 JT ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [BM]asbestos-cement pipe [DI]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

313A 120 313B S QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

314 ___ DIAMETER in inches for piping.

315 ? QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 A DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 15 Extent: (a) localized ___ (b) distributed ✓ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ✓
Amt. exposed (%): 100 Amt. accessible (%): 75 (within arms reach?) Potential for air erosion? No
Proximity to repair items?: 1' Influence of vibration ?: yes Comments: _____

317 B CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

318 B EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

319 16 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

320 C PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (31B)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

330 F, H, L RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	8	8	8						
Sample number	4152	3265	4183						
(%)	1/1 (341)	2 (343)	1/2 (345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	A/B (342)	B (344)	A/B (346)	(348)	(350)	(352)	(354)	(356)	(358)

359 C RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

Collected in Boiler Room

ASBESTOS FACILITY INVENTORY FORM
(for each homogeneous area) Sheet 9 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score (201) PD14

Homogeneous area # (204) 9 Homo. Area (SF/LF) (205) 60

UIC (101) N62603 Activity (102) EMWTC Charleston, S.C.

Contains friable ACM (Yes/No) (206) Yes

Claimant (103) COMTRALANT EFD (104) Southern Division

Public access (Yes/No) (207) No

POCM (105) K. Patterson Phone (106) 803/743-1799 Bldg # (107) 647

Contractor & inspector name (208) Westinghouse / T. Spivey

Inspector Signature, State of Accreditation/Accred. #

Prop Rec # (108) 210001 Bldg. Area (SF) (109) 35,422

Survey date (209) 10/17/90

Area use (110) Training Facility Cat Code (111) 17120 Yr built (112) 1965

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

F 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

B 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

O 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Expansion Tank Shed

60 S 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

___ 314 DIAMETER in inches for piping.

A 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

C 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 0 Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ___ Amt. accessible (%): ___ (within arms reach?) Potential for air erosion? ___
Proximity to repair items?: ___ Influence of vibration ?: ___ Comments: _____

D 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

B 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

16 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

C 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

H,E 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	9	9	9	~~9~~	~~9~~	~~9~~			
Sample number	4154	4151	4149	~~4160~~	~~4194~~	~~4171~~			
(%)	2 (341)	5 (343)	1/2 (345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	B (342)	B (344)	A/B (346)	(348)	(350)	(352)	(354)	(356)	(358)

C 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

Collected in Boiler Room

(for each homogeneous area) Sheet 10 of 10

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 726

Homogeneous area # 204 10 Homo. Area (SF/LF) 205 2 Sea

UIC N62603 101 Activity FMWTC Charleston, S.C. 102

Contains friable ACM [Yes/No] 206 Yes

Claimant COMTRALANT 103 EFD Southern Division 104

Public access [Yes/No] 207 No

POCM K. Patterson 105 Phone 803/743-1799 106 Bldg # 647 107

Contractor & inspector name 208 Westinghouse T. Spivey

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC1729

Prop Rec # 210001 108 Bldg. Area (SF) 109 35,422

Survey date 209 10/17/90

Area use 110 Training Facility Cat Code 111 17120 Yr built 112 1965

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

F 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

B 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

O 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [OM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Valve/Fitting *

25 ea 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

10-12" 314 DIAMETER in inches for piping.

C 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

B 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 30 Extent: (a) localized ___ (b) distributed ✓ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ✓
Amt. exposed (%): 100 Amt. accessible (%): 100 (within arms reach?) Potential for air erosion? ___
Proximity to repair items?: 1' Influence of vibration ?: yes Comments: _____

B 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

B 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

16 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

C 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

F, H, K 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	10	10	10						
Sample number	4160	4194	4171						
(%)	8 (341)	0 (343)	2 (345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	B (342)	(344)	A (346)	(348)	(350)	(352)	(354)	(356)	(358)

C 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

4160 - Valve
4194 - Fitting
4171 - Fitting

Collected in Boiler Room

NAVFAC FORM 5100/32 rev 05/01/89

(For each homogeneous area) Sheet 1 of 1

Request activity fill out numbers 101-112 prior to inspection.

Rating Score (201) D 28

Homogeneous area # (204) 1 Homo. Area (SF/LF) (205) 300 SF

UIC (101) N62603 Activity (102) FMWTC Charleston, S.C.

Contains friable ACM [Yes/No] (206) Yes

Claimant (103) COMTRALANT EFD (104) Southern Division

Public access [Yes/No] (207) No

POC (105) M.K. Patterson Phone (106) 803/743-1799 Bldg # (107) 1351

Contractor & inspector name (208) Westinghouse / T. Spivey

Inspector Signature, State of Accreditation/Accred. #

Prop Rec # (108) _____ Bldg. Area (SF) (109) 90

SC 1729

Survey date (209) 10/16/90

Area use (110) Paint Locker Cat Code (111) 84209 Yr built (112) _____

301 F BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

302 H BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

303 B FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

311 H ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

312 BT ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BT]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

313A 300 313B S QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

314 ___ DIAMETER in inches for piping.

315 A QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 A DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 20 Extent: (a) localized ___ (b) distributed ✓ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ✓
Amt. exposed (%): 50 Amt. accessible (%): 100 (within arms reach?) Potential for air erosion? No
Proximity to repair items?: NA Influence of vibration ?: No Comments: * See reverse

317 B CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

318 B EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

319 16 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

320 C PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

330 D,G,K RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	1								
Sample number	1351-01								
(%)	10/2								
	341	343	345	347	349	351	353	355	357
TYPE	A/B								
	342	344	346	348	350	352	354	356	358

359 C RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

clude comments on NAVOSH DAP/MIS format in appropriate narrative sections

boratory name and address:

Facility is used for flammable storage. Interior walls are perforated fiber board with the insulation between interior & exterior walls. Areas of the interior walls are damaged and insulation material is highly friable.

NAVFAC FORM 5100/32 rev 05/01/89

(For each homogeneous area) Sheet 1 of 8

Request activity fill out numbers 101-112 prior to inspection.

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102)

Claimant COMTRALANT (103) EFD Southern Division (104)

POCM K. Patterson (105) Phone 803/743-1799 (106) Bldg # 643 (107)

Prop Rec # 210007 (108) Bldg. Area (SF) 68,200 (109)

Area use Training Facility (110) Cat Code 17120 (111) Yr built 1969 (112)

Rating Score -0- (201)

Homogeneous area # 1 (204) Homo. Area (SF/LF) NA (205)

Contains friable ACM [Yes/No] No (206)

Public access [Yes/No] No (207)

Contractor & inspector name Westinghouse/T. Spivey (208)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

Survey date 10/19/90 (209)

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

D 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

E 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

HM 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

NA 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

___ 314 DIAMETER in inches for piping.

A 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

C 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized___ (b) distributed___ Type: (a) Deteriorating___ (b) Water___ (c) Physical___
Amt. exposed (%):____ Amt. accessible (%):____ (within arms reach?) Potential for air erosion?____
Proximity to repair items?:____ Influence of vibration ?:___ Comments:_____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	1								
Sample number	643-01								
(%)	0 (341)	(343)	(345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	(342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

E 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

6413-01 - Rm 230

(For each homogeneous area) Sheet 2 of 8

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 -0-

Homogeneous area # 204 2 Homo. Area (SF/LF) 205 NA

UIC N62603 101 Activity 102 FMWTC Charleston, S.C.

Contains friable ACM (Yes/No) 206 No

Claimant 103 COMTRALANT EFD 104 Southern Division

Public access (Yes/No) 207 No

POC 105 M.K. Patterson Phone 106 803/743-1799 Bldg # 107 643

Contractor & inspector name 208 Westinghouse / T. Spivey

Inspector Signature, State of Accreditation/Accred. #

Prop Rec # 108 21/0007 Bldg. Area (SF) 109 68,200

Timothy Spivey SC 1729

Survey date 209 8/19/90

Area use 110 Training Facility Cat Code 111 17120 Yr built 112 1969

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

F 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

F 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other Floor tile *

O 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other 12" Floor tile *

NA 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

314 DIAMETER in inches for piping.

NA 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

D 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ___ Amt. accessible (%): ___ (within arms reach?) Potential for air erosion? ___
Proximity to repair items?: ___ Influence of vibration ?: ___ Comments: _____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	2								
Sample number	643-02								
(%)	0 (341)	(343)	(345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	(342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

E 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

6743-02 - 12" Tam F.T. Rm 201

(for each homogeneous area) Sheet 3 of 7

Request activity fill out numbers 101-112 prior to inspection.

UIC N62603 (101) Activity EMWTC Charleston, S.C. (102)

Claimant COMTRALANT (103) EFD Southern Division (104)

POCM K. Patterson (105) Phone 803/743-1799 (106) Bldg # 673 (107)

Prop Rec # 210007 (108) Bldg. Area (SF) 68,200 (109)

Area use Training Facility (110) Cat Code 17120 (111) Yr built 1969 (112)

Rating Score (201) PD 14

Homogeneous area # (204) 3 Homo. Area (SF/LF) (205) 9,600

Contains friable ACM. [Yes/No] (206) NO

Public access [Yes/No] (207) No

Contractor & inspector name (208) Westinghouse / T. Spivey

Inspector Signature, State of Accreditation/Accred. #

T. Spivey SC 1729

Survey date (209) 10/19/90

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

D 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

G 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

O 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BT]wall insulation [GM]gasket/seal [PM]transite [OM]asbestos-cement pipe [ET]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Duct Mastic *

9,600 (313A) S (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

___ (314) DIAMETER in inches for piping.

A 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

D 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 0 Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): 0 Amt. accessible (%): 0 (within arms reach?) Potential for air erosion? No
Proximity to repair items?: 1" Influence of vibration ?: No Comments: _____

D 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

A 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

>100 (319) PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

A 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

G,H 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	3								
Sample number	643-03								
(%)	10 (341)	(343)	(345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	A (342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

C 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH OAP/MIS format in appropriate narrative sections

Laboratory name and address:

6 43-03 - Rm 207 above ceiling

NAVFAC FORM 5100/32 rev 05/01/89

(For each homogeneous area) Sheet 4 of 8

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 -0-

Homogeneous area # 204 4 Homo. Area (SF/LF) 205 NA

UIC N62603 101 Activity FMWTC Charleston, S.C. 102

Contains friable ACM (Yes/No) 206 No

Claimant COMTRALANT 103 EFD Southern Division 104

Public access (Yes/No) 207 No

POCM K. Patterson 105 Phone 803/743-1799 106 Bldg # 107 643

Contractor & inspector name 208 Westinghouse T. Spivey

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

Prop Rec # 108 210007 Bldg. Area (SF) 109 68,200

Survey date 209 10/19/90

Area use 110 Training Facility Cat Code 111 17120 Yr built 112 1969

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

D 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

E 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

NA 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [CI]duct
[FI]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

NA 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

314 DIAMETER in inches for piping.

NA 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

C 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized___ (b) distributed___ Type: (a) Deteriorating___ (b) Water___ (c) Physical___
Amt. exposed (%):____ Amt. accessible (%):_____ (within arms reach?) Potential for air erosion?____
Proximity to repair items?:____ Influence of vibration ?:___ Comments:_____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	6704								
Sample number	4								
(%)	-0- 341	343	345	347	349	351	353	355	357
TYPE	342	344	346	348	350	352	354	356	358

E 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

643-04- Rm 207 2x2 C.T.

(for each homogeneous area) Sheet 5 of 8

Request activity fill out numbers 101-112 prior to inspection.

Rating Score -0- (201)

Homogeneous area # 5 (204) Homo. Area (SF/LF) NA (205)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102)

Contains friable ACM (Yes/No) No (206)

Claimant COMTRALANT (103) EFD Southern Division (104)

Public access (Yes/No) No (207)

POC M.K. Patterson (105) Phone 803/743-1799 (106) Bldg # 643 (107)

Contractor & inspector name Westinghouse / T. Spivey (208)

Inspector Signature, State of Accreditation/Accred. #

Prop Rec # 210007 (108) Bldg. Area (SF) 65,200 (109)

T. M. Spivey SC 1729

Survey date 10/19/90 (209)

Area use Training Facility (110) Cat Code 17120 (111) Yr built 1969 (112)

A (301) BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

E (302) BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

B (303) FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

B (311) ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

O (312) ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DI]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Pipe Elbows *

25 (313A 313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

10" (314) DIAMETER in inches for piping.

? (315) QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

C (316) DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 0 Extent: (a) localized___ (b) distributed___ Type: (a) Deteriorating___ (b) Water___ (c) Physical___
Amt. exposed (%):____ Amt. accessible (%):____ (within arms reach?) Potential for air erosion?____
Proximity to repair items?:____ Influence of vibration ?:____ Comments:_____

NA (317) CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA (318) EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA (319) PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA (320) PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA (330) RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	5	5	5						
Sample number	4129	4197	4161						
(%)	0 (341)	0 (343)	0 (345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	(342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

E (359) RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

(For each homogeneous area) Sheet 6 of 8

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 -0-

Homogeneous area # 204 6 Homo. Area (SF/LF) 205 NA

UIC N62603 101 Activity FMWTC Charleston, S.C. 102

Contains friable ACM [Yes/No] 206 No

Claimant COMTRALANT 103 EFD Southern Division 104

Public access [Yes/No] 207 No

POCM K. Patterson 105 Phone 803/743-1799 106 Bldg # 107 643

Contractor & inspector name 208 Westinghouse / T. Bryney

Inspector Signature, State of Accreditation/Accred. #

Prop Rec # 108 210007 Bldg. Area (SF) 109 68,200

Survey date 209 10/19/90

Area use 110 Training Facility Cat Code 111 17120 Yr built 112 1969

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

E 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

B 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

O 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [OM]asbestos-cement pipe [ET]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [HT]steam pipe [O]other Valve/Joint mud

12 313A ea 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

10" 314 DIAMETER in inches for piping.

C 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

B 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 2 Extent: (a) localized ___ (b) distributed ✓ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): 100 Amt. accessible (%): 100 (within arms reach?) Potential for air erosion? No
Proximity to repair items?: 1' Influence of vibration ?: yes Comments: _____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	6	6	6						
Sample number	4159	4155	4178						
(%)	0 (341)	0 (343)	0 (345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	(342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

E 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH OAP/MIS format in appropriate narrative sections

Laboratory name and address:

(For each homogeneous area) Sheet 7 of 8

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 0

Homogeneous area # 204 7 Homo. Area (SF/LF) 205 NA

UICN62603 101 Activity FMWTC Charleston, S.C. 102

Contains friable ACM (Yes/No) 206 No

Claimant COMTRALANT 103 EFD Southern Division 104

Public access (Yes/No) 207 No

POCM K. Patterson 105 Phone 803/743-1799 106 Bldg # 6673 107

Contractor & inspector name 208 Westinghouse / T. Sowey

Inspector Signature, State of Accreditation/Accred. #

Timothy Sowey SC1729

Prop Rec # 21007 108 Bldg. Area (SF) 109 68,200

Survey date 209 10/19/90

Area use 110 Training Facility Cat Code 111 17120 Yr built 112 1969

301 A BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

302 E BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

303 B FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

311 E ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

312 CM ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [CM]gasket/seal [PM]transite [OM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line[GS] surface coating[HM]ceiling tile[IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing[MM] vinyl flooring [NT]steam pipe [O]other _____*

313A 12 313B L QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping ___ 314 DIAMETER in inches for piping.

315 A QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 C DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized___ (b)distributed___ Type: (a)Deteriorating___ (b)Water___ (c) Physical___
Amt. exposed (%):_____ Amt. accessible (%):_____ (within arms reach?) Potential for air erosion?___
Proximity to repair items?:___ Influence of vibration ?:___ Comments:_____

317 NA CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

318 NA EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

319 NA PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

320 NA PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

330 NA RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	7								
Sample number	4168								
(%)	0								
	341	343	345	347	349	351	353	355	357
TYPE									
	342	344	346	348	350	352	354	356	358

359 F RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

(for each homogeneous area) Sheet 8 of 8

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 0 (201)

Homogeneous area # 8 (204) Homo. Area (SF/LF) NA (205)

Contains friable ACM (Yes/No) No (206)

Public access (Yes/No) No (207)

Contractor & inspector name Westinghouse T. Spivey (208)

Inspector Signature, State of Accreditation/Accred. # T. Spivey SC 1729

Survey date 8/19/90 (209)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102)

Claimant COMTRALANT (103) EFO Southern Division (104)

POC M.K. Patterson (105) Phone 803/743-1799 (106) Bldg # 643 (107)

Prop Rec # 210007 (108) Bldg. Area (SF) 68,200 (109)

Area use Training Facility (110) Cat Code 17120 (111) Yr built 1969 (112)

A (301) BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

E (302) BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B (303) FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

F (311) ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

O (312) ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [OM]asbestos-cement pipe [DI]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Fireproofing*

300 S (313A 313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

(314) DIAMETER in inches for piping.

C (315) QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

A (316) DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 20 Extent: (a) localized ___ (b) distributed ✓ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ✓
Amt. exposed (%): 100 Amt. accessible (%): 0 (within arms reach?) Potential for air erosion? YES
Proximity to repair items?: 2 Influence of vibration ?: No Comments: _____

B (317) CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

B (318) EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA (319) PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA (320) PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA (330) RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	8	8	8						
Sample number	643-05	643-06	643-07						
(%)	0 (341)	0 (343)	0 (345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	(342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

E (359) RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY INVENTORY FORM
(For each homogeneous area) Sheet 1 of 1

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 PD 10

Homogeneous area # 204 1 Homo. Area (SF/LF) 205 600

UIC N62603 101 Activity 102 FMWTC Charleston, S.C.

Contains friable ACM [Yes/No] 206 Yes

Claimant 103 COMTRALANT EFD 104 Southern Division

Public access [Yes/No] 207 No

Contractor & inspector name 208 Westinghouse / T. Spivey

POC 105 M.K. Patterson Phone 106 803/743-1799 Bldg # 107 1715

Inspector Signature, State of Accreditation/Accred. #
Timothy Spivey SC 1729

Prop Rec # 108 800028 Bldg. Area (SF) 109 1240

Survey date 209 10/16/90

Area use 110 maintenance Shed Cat Code 111 17120 Yr built 112 1968

F 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

K 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

G 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

GS 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

600 313A S 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

___ 314 DIAMETER in inches for piping.

A 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

C 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 0 Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): 100 Amt. accessible (%): 0 (Within arms reach?) Potential for air erosion? No
Proximity to repair items?: NA Influence of vibration ?: No Comments: _____

D 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

A 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

16 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

C 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

G,H 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	1	1	1						
Sample number	1715-01	1715-02	1715-03						
(%)	<1 (341)	<1 (343)	<1 (345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	C (342)	C (344)	C (346)	(348)	(350)	(352)	(354)	(356)	(358)

D 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

Samples Collected From Shop area Ceiling.

Plaster type material

(For each homogeneous area) Sheet 1 of 1

Request activity fill out numbers 101-112 prior to inspection.

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102)

Claimant COMTRALANT (103) EFD Southern Division (104)

POC M.K. Patterson (105) Phone 803/743-1799 (106) Bldg # 203 (107)

Prop Rec # 2-00004 (108) Bldg. Area (SF) 64 (109)

Area use Paint Storage (110) Cat Code 17120 (111) Yr built 1956 (112)

Rating Score -0- (201)

Homogeneous area # -0- (204) Homo. Area (SF/LF) NA (205)

Contains friable ACM [Yes/No] No (206)

Public access [Yes/No] No (207)

Contractor & inspector name Westinghouse/T. Spivey (208)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey S.C. 1729

Survey date 10/15/90 (209)

I (301) BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other Storage *

H (302) BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____ *

B (303) FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

NA (311) ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____ *

NA (312) ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____ *

NA (313A) ____ (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping ____ (314) DIAMETER in inches for piping.

NA (315) QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

____ (316) DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ____ Amt. accessible (%): ____ (within arms reach?) Potential for air erosion? ____
Proximity to repair items?: ____ Influence of vibration ?: ___ Comments: _____

NA (317) CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA (318) EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA (319) PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA (320) PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA (330) RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____ *

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	NA								
Sample number	NA								
(%)	341	343	345	347	349	351	353	355	357
TYPE	342	344	346	348	350	352	354	356	358

NA (359) RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY INVENTORY FORM
(for each homogeneous area) Sheet 1 of 1

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 0

Homogeneous area # 204 1 Homo. Area (SF/LF) 205 450 SF

UIC N62603 101 Activity FMWTC Charleston, S.C. 102

Contains friable ACM [Yes/No] 206 No

Claimant COMTRALANT 103 EFD Southern Division 104

Public access [Yes/No] 207 NO

POCM K. Patterson 105 Phone 803/743-1799 106 Bldg # 107 204

Contractor & inspector name 208 Westinghouse / T. Spivey

Inspector Signature, State of Accreditation/Accred. #
Timothy Spivey SC

Prop Rec # 108 200002 Bldg. Area (SF) 109 800

Survey date 209 10/15/90

Area use 110 Pump House Cat Code 111 84209 Yr built 112 1956

301 E BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

302 E BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other Pump House*

303 B FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

311 G ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

312 O ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BT]wall insulation [CM]gasket/seal [PM]transite [DM]asbestos-cement pipe [EI]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Tank Mastic*

313A 450 313B S QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

314 ___ DIAMETER in inches for piping.

315 C QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 C DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ___ Amt. accessible (%): ___ (within arms reach?) Potential for air erosion? ___
Proximity to repair items?: ___ Influence of vibration ?: ___ Comments: _____

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317 NA CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

318 NA EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

319 NA PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

320 NA PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

330 NA RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	1								
Sample number	204-01								
(%)	0								
	341	343	345	347	349	351	353	355	357
TYPE									
	342	344	346	348	350	352	354	356	358

359 E RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH OAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY INSPECTION FORM
(for each homogeneous area) Sheet 1 of 1

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 -0-

Homogeneous area # 204 -0- Homo. Area (SF/LF) 205 NA

UIC N62603 101 Activity FMWTC Charleston, S.C. 102

Contains friable ACM (Yes/No) 206 No

Claimant COMTRALANT 103 EFD Southern Division 104

Public access (Yes/No) 207 No

POC M.K. Patterson 105 Phone 803/743-1799 106 Bldg # 679 107

Contractor & inspector name 208 Westinghouse T. Spivey

Inspector Signature, State of Accreditation/Accred. #
Timothy Spivey SC 1729

Prop Rec # 210005 108 Bldg. Area (SF) 109 2744

Survey date 209 10/18/90

Area use 110 Storage Cat Code 111 17120 Yr built 112 1967

301 D BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

302 H BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

303 B FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

311 NA ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

312 NA ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [ET]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

313A 313B NA QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

314 DIAMETER in inches for piping.

315 NA QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ____ Amt. accessible (%): ____ (within arms reach?) Potential for air erosion? ____
Proximity to repair items?: ____ Influence of vibration ?: ___ Comments: _____

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317 NA CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

318 NA EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

319 NA PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

320 NA PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

330 NA RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	NA								
Sample number	NA								
(%)	341	343	345	347	349	351	353	355	357
TYPE	342	344	346	348	350	352	354	356	358

359 NA RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

(for each homogeneous area) Sheet 1 of 1

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 0 (201)

Homogeneous area # 1 (204) Homo. Area (SF/LF) 240 (205)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102)

Contains friable ACM [Yes/No] No (206)

Claimant COMTRALANT (103) EFD Southern Division (104)

Public access [Yes/No] No (207)

POC M.K. Patterson (105) Phone 803/743-1799 (106) Bldg # 1303 (107)

Contractor & inspector name Westinghouse T. Sovey (208)

Inspector Signature, State of Accreditation/Accred. #

Timothy Sovey S.C.

Prop Rec # 2000/0 (108) Bldg. Area (SF) 6237 (109)

Survey date 10/15/90 (209)

Area use Wat Trainer (110) Cat Code 17120 (111) Yr built 1953 (112)

A (301) BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

D (302) BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B (303) FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

I (311) ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other Floor tile *

O (312) ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other 12" Floor tile *

240 (313A) S (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

___ (314) DIAMETER in inches for piping.

C (315) QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

D (316) DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent 0 Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ___ Amt. accessible (%): ___ (Within arms reach?) Potential for air erosion? ___
Proximity to repair items?: ___ Influence of vibration ?: ___ Comments: _____

D (317) CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

A (318) EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

S (319) PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

D (320) PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA (330) RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	1	1							
Sample number	01	02							
(%) (341, 343, 345, 347, 349, 351, 353, 355, 357)	0	0							
TYPE (342, 344, 346, 348, 350, 352, 354, 356, 358)									

E (359) RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

Suspect Materials noted
12"x12" Blue Floor tile - Red under Blue
~~2'x2' Ceiling tile~~

01- 12" Blue no mastic used adhesive
02- Red under Blue

NAVFAC FORM 5100/32 rev 05/01/89

(for each homogeneous area) Sheet 1 of 1

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 0 (201)

Homogeneous area # 1 (204) Homo. Area (SF/LF) 900 (205)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102)

Contains friable ACM [Yes/No] No (206)

Claimant COMTRALANT (103) EFD Southern Division (104)

Public access [Yes/No] No (207)

POC M. K. Patterson (105) Phone 803/743-1799 (106) Bldg # 1309 (107)

Contractor & inspector name Westinghouse T. Spivey (208)

Inspector Signature, State of Accreditation/Accred. # Timothy Spivey SC 1729

Prop Rec # 200016 (108) Bldg. Area (SF) 900 (109)

Survey date 10/22/90 (209)

Area use Fire Fighting (110) Cat Code 17945 (111) Yr built 1956 (112)

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

U 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other Fire Fighting Training

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

C 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

O 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BT]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [ET]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Fire Brick *

900 (313A) S (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping ___ (314) DIAMETER in inches for piping.

C 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

C 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ___ Amt. accessible (%): ___ (within arms reach?) Potential for air erosion? ___
Proximity to repair items?: ___ Influence of vibration ?: ___ Comments: _____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	1	1							
Sample number	01	02							
(%) (341, 343, 345, 347, 349, 351, 353, 355, 357)	0	0							
TYPE (342, 344, 346, 348, 350, 352, 354, 356, 358)									

E 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY INSPECTION FORM
(for each homogeneous area) Sheet 1 of 1

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 0

Homogeneous area # 204 1 Homo. Area (SF)(LF) 205 1228

UIC N62603 101 Activity FMWTC Charleston, S.C. 102

Contains friable ACM [Yes/No] 206 No

Claimant COMTRALANT 103 EFD Southern Division 104

Public access [Yes/No] 207 No

Contractor & inspector name 208 Westinghouse T. Spivey

POC M.K. Patterson 105 Phone 803/743-1799 106 Bldg # 107 1310

Inspector Signature, State of Accreditation/Accred. #
Timothy Spivey SC1729

Prop Rec # 108 200015 Bldg. Area (SF) 109 1228

Survey date 209 10/22/90

Area use 110 Fire Fighting Cat Code 111 17945 Yr built 112 1956

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

H 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other Fire Fighting training

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

C 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

O 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Fire Brick*

1228 S 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

___ 314 DIAMETER in inches for piping.

B 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

C 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized___ (b)distributed___ Type: (a)Deteriorating___ (b)Water___ (c) Physical___
Amt. exposed (%):____ Amt. accessible (%):____ (within arms reach?) Potential for air erosion?____
Proximity to repair items?:____ Influence of vibration ?:___ Comments:_____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	1								
Sample number	01								
(%)	0 (341)	(343)	(345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	(342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

E 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

(for each homogeneous area) Sheet 1 of 1

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 -0-

Homogeneous area # 204 -0- Homo. Area (SF/LF) 205 NA

UIC N62603 101 Activity FMWTC Charleston, S.C. 102

Contains friable ACM (Yes/No) 206 No

Claimant COMTRALANT 103 EFD Southern Division 104

Public access (Yes/No) 207 No

POCM K. Patterson 105 Phone 803/743-1799 106 Bldg # 1313 107

Contractor & inspector name 208 Westinghouse / T. Spivey

Inspector Signature, State of Accreditation/Accred. #

Prop Rec # 200003 108 Bldg. Area (SF) 1020 109

Tim Spivey S.C. 1729

Area use 110 Gear Locker Cat Code 111 17120 Yr built 112 1956

Survey date 209 10/15/90

A BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
301 [A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

H, G BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
302 [A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
303 [A] critical [B] essential [C] non-essential

NA ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
311 [D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

NA ASBESTOS FUNCTION: Enter one of following codes
312 [AS]acoustical insulation [BI]wall insulation [CM]gasket/seal [PM]transite [OM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

NA QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping
313A 313B

DIAMETER in inches for piping. 314

NA QUANTITY RANGE: Enter letter for closest range
315 [A] >5000 units [B] 1000-5000 units [C] <1000 units

DEGREE OF FRIABILITY: Enter letter describing friability
316 [A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ___ Amt. accessible (%): ___ (within arms reach?) Potential for air erosion? ___
Proximity to repair items?: ___ Influence of vibration ?: ___ Comments: _____

NA CONDITION: Enter letter describing condition
317 [A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA EXPOSURE POTENTIAL: Enter letter best describing exposure potential
318 [A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos
319

NA PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
320 [A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
330 [A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	NA								
Sample number	NA								
(%)	341	343	345	347	349	351	353	355	357
TYPE	342	344	346	348	350	352	354	356	358

NA RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos
359

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH OAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY INVENTORY FORM
(for each homogeneous area) Sheet 1 of 1

Request activity fill out numbers 101-112 prior to inspection.

Rating Score (201) C2

Homogeneous area # (204) NA Homo. Area (SF/LF) (205) NA

Contains friable ACM [Yes/No] (206) No

Public access [Yes/No] (207) No

Contractor & inspector name (208) Westinghouse/T. Spivey

Inspector Signature, State of Accreditation/Accred. #
Timothy Spivey SC1729

Survey date (209) 10/19/90

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102)

Claimant COMTRALANT (103) CFD Southern Division (104)

POCM K. Patterson (105) Phone 803/743-1799 (106) Bldg # 1352 (107)

Prop Rec # (108) Bldg. Area (SF) 100 (109)

Area use Air Compressor Shed (110) Cat Code 84209 (111) Yr built (112)

F 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

F 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

NA 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

NA 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [ET]duct
[FT]hi-temp hot water line[GS] surface coating[HM]ceiling tile[IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing[MM] vinyl flooring [NT]steam pipe [O]other _____*

NA 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

314 DIAMETER in inches for piping.

NA 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized___ (b)distributed___ Type: (a)Deteriorating___(b)Water___(c) Physical___
Amt. exposed (%):____ Amt. accessible (%):_____(Within arms reach?) Potential for air erosion?___
Proximity to repair items?:___Influence of vibration ?:___ Comments:_____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	NA								
Sample number	NA								
(%)	NA (341)	(343)	(345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	NA (342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

NA 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH OAP/MIS format in appropriate narrative sections

Laboratory name and address:

(For each homogeneous area) Sheet 1 of 1

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 -0-

Homogeneous area # 204 NA Homo. Area (SF/LF) 205 NA

UIC N62603 101 Activity FMWTC Charleston, S.C. 102

Contains friable ACM [Yes/No] 206 NO

Claimant COMTRALANT 103 EFD Southern Division 104

Public access [Yes/No] 207 NO

POC M.K. Patterson 105 Phone 803/743-1799 106 Bldg # 1722 107

Contractor & inspector name 208 Westinghouse/T. Spivey

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC1729

Prop Rec # 210008 108 Bldg. Area (SF) 109 90

Survey date 209 10/18/90

Area use 110 Generator Cat Code 111 17945 Yr built 112 1969

301 F BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

302 F BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

303 B FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

311 NA ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

312 NA ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [OM]asbestos-cement pipe [DI]duct
[FI]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

313A 313B NA QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

314 DIAMETER in inches for piping.

315 NA QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ___ Amt. accessible (%): ___ (within arms reach?) Potential for air erosion? ___
Proximity to repair items?: ___ Influence of vibration ?: ___ Comments: _____

---

317 NA CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

318 NA EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

319 NA PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

320 NA PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

330 NA RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	NA								
Sample number	NA								
(%)	NA 341	343	345	347	349	351	353	355	357
TYPE	NA 342	344	346	348	350	352	354	356	358

359 NA RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH OAP/MIS format in appropriate narrative sections

Laboratory name and address: _____

(For each homogeneous area) Sheet 1 of 1

Request activity fill out numbers 101-112 prior to inspection.

Rating Score 201 -0-

Homogeneous area # 204 -0- Homo. Area (SF/LF) 205 NA

UIC N62603 101 Activity FMWTC Charleston, S.C. 102

Contains friable ACM (Yes/No) 206 No

Claimant COMTRALANT 103 EFD Southern Division 104

Public access (Yes/No) 207 No

POCM.K. Patterson 105 Phone 803/743-1799 106 Bldg # 1744 107

Contractor & inspector name 208 Westinghouse/T. Spivey

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

Prop Rec # 200029 108 Bldg. Area (SF) 231 109

Survey date 209 10/15/90

Area use 110 ~~Laundry~~ Lounge Cat Code 111 17120 Yr built 112 1970

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

U 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other lounge*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

NA 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

NA 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DI]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NF]steam pipe [O]other _____*

NA 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping ___ 314 DIAMETER in inches for piping.

NA 315 QUANTITY RANGE: Enter letter for closest range [A] >5000 units [B] 1000-5000 units [C] <1000 units

___ 316 DEGREE OF FRIABILITY: Enter letter describing friability [A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ___ Amt. accessible (%): ___ (within arms reach?) Potential for air erosion? ___
Proximity to repair items?: ___ Influence of vibration ?: ___ Comments: _____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	NA								
Sample number	NA								
(%)	341	343	345	347	349	351	353	355	357
TYPE	342	344	346	348	350	352	354	356	358

NA 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

(for each homogeneous area) Sheet 1 of 1

Request activity fill out numbers 101-112 prior to inspection.

Rating Score -0- (201)

Homogeneous area # -0- (204) Homo. Area (SF/LF) NA (205)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102)

Contains friable ACM [Yes/No] No (206)

Claimant COMTRALANT (103) CFD Southern Division (104)

Public access [Yes/No] No (207)

POC M.K. Patterson (105) Phone 803/743-1799 (106) Bldg # 1819 (107)

Contractor & inspector name Westinghouse/T. Spivey (208)

Inspector Signature, State of Accreditation/Accred. # Timothy Spivey SC 1729

Prop Rec # (108) Bldg. Area (SF) 450 (109)

Survey date 10/16/90 (209)

Area use Lawn Shed (110) Cat Code 84209 (111) Yr built (112)

E 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

K 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

NA 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

NA 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DI]duct
[FT]hi-temp hot water line[GS] surface coating[HM]ceiling tile[IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing[MM] vinyl flooring [NT]steam pipe [O]other _____*

NA 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping ___ 314 DIAMETER in inches for piping.

NA 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

___ 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized___ (b)distributed___ Type: (a)Deteriorating___ (b)Water___ (c) Physical___
Amt. exposed (%):____ Amt. accessible (%):____ (within arms reach?) Potential for air erosion?____
Proximity to repair items?:___ Influence of vibration ?:___ Comments:_____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	NA								
Sample number	NA								
(%)	341	343	345	347	349	351	353	355	357
TYPE	342	344	346	348	350	352	354	356	358

NA 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY INVENTORY FORM
(for each homogeneous area) Sheet 1 of 1

Request activity fill out numbers 101-112 prior to inspection.

Rating Score -0- (201)

Homogeneous area # -0- (204) Homo. Area (SF/LF) NA (205)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102)

Contains friable ACM [Yes/No] No (206)

Claimant COMTRALANT (103) ERU Southern Division (104)

Public access [Yes/No] No (207)

POCM K. Patterson (105) Phone 803/743-1799 (106) Bldg # 1834 (107)

Contractor & inspector name Westinghouse / T. Spivey (208)

Inspector Signature, State of Accreditation/Accred. #

Prop Rec # (108) Bldg. Area (SF) 500 (109)

Survey date 10/15/90 (209)

Area use Laundry (110) Cat Code 84209 (111) Yr built (112)

B 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

U 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other Laundry*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

NA 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

NA 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [UM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

NA 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping ___ 314 DIAMETER in inches for piping.

NA 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

DAMAGE: Percent NA Extent: (a) localized___ (b) distributed___ Type: (a) Deteriorating___ (b) Water___ (c) Physical___
Amt. exposed (%): ____ Amt. accessible (%): ____ (within arms reach?) Potential for air erosion? ____
Proximity to repair items?: ____ Influence of vibration ?: ____ Comments: _____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	NA								
Sample number	NA								
(%)	341	343	345	347	349	351	353	355	357
TYPE	342	344	346	348	350	352	354	356	358

NA 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

* Explain in comments section on reverse of form if necessary.

COMMENTS

Include comments on NAVOSH OAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY RATING/RANKING FORMS

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score 5D78 (201) Rank 1 of 18 (202) (203)

Claimant COMTRALANT (103) EFD Southern Division (104) Homogeneous area # 1 (204) Homo. area (SF/LF) 39,119 (205)

POC M.K. Patterson (105) Phone 803/743-1700 (106) DDI. # 202 (107) Contains friable ACM (Yes/No) Yes (206) Public access (Yes/No) No (207)

Prop Rec # 200001 (108) Bldg area (SF) 39,119 (109) Contractor & inspector name Westinghouse / T. Spivey (208) Survey date 10/15/90 (209)

Area Use Training Facility (110) Cat Code 17120 (111) Yr built 1956 (112)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

DF 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

G 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

GS 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [UM]asbestos-cement pipe [EI]duct
[FI]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

39,119 (313A) S (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

(314) DIAMETER in inches for piping.

A 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

A 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

amage: Percent 50 Extent: (a) localized ___ (b)distributed ✓ Type: (a)Deteriorating ___ (b)Water ___ (c) Physical ✓
Amt. exposed (%): 50 Amt. accessible (%): 0 (within arms reach?) Potential for air erosion? yes
Proximity to repair items?: N/ Influence of vibration ?: No Comments: _____

A 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

A 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

7100 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

A 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

A,L 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	1	1	1	1	1				
Sample number	20201	20202	20203	20204	20209				
(%)	2 (341)	2 (343)	<1 (345)	2 (347)	3 (349)	(351)	(353)	(355)	(357)
TYPE	A (342)	A (344)	A (346)	A (348)	A (350)	(352)	(354)	(356)	(358)

*Explain in comments section on reverse of form if necessary.

5 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building.

Area #	2 (360)	3 (362)	4 (364)	5 (366)	6 (368)	7 (370)	8 (372)	9 (374)	10 (376)	(378)	(380)	(382)	(384)	(386)	(388)	(390)	(392)
SCORE	0 (361)	0 (363)	D54 (365)	0 (367)	PD7 (369)	D28 (371)	PD13 (373)	PD14 (375)	D21 (377)	(379)	(381)	(383)	(385)	(387)	(389)	(391)	(393)

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

202-01 Rm 201
" 02 Rm 207
" 03 1st floor hallway
" 04 Rm 125
" 09 Rm 213

This material is severely damaged and highly friable.

The plaster ceiling is exposed in some areas but most of the ceiling is above a dropped acoustical (2'x4') ceiling.

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score D46 (201) Rank 2 (202) of 18 (203)

Claimant COMTRALANT (103) CFD Southern Division (104) Homogeneous area # 2 (204) Homo. area (SF/LF) 30 ea (205)

POM K. Patterson (105) Phone 803/743-1700 (106) BLDG. # 645 (107) Contains friable ACM [Yes/No] Yes (206) Public access [Yes/No] No (207)

Prop Rec. # 210006 (108) Bldg area (SF) 1612 (109) Contractor & inspector name Westinghouse/T. Spivey (208) Survey date 10/18/90 (209)

Area Use Training Facility (110) Cat Code 17120 (111) Yr built 1969 (112)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

A (301) BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

K (302) BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B (303) FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

B (311) ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

O (312) ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [EI]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other pipe elbow*

30 ea (313A 313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping

4 (314) DIAMETER in inches for piping.

C (315) QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

(316) DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

Damage: Percent 15 Extent: (a) localized __ (b) distributed ✓ Type: (a) Deteriorating __ (b) Water __ (c) Physical ✓
Amt. exposed (%): 100 Amt. accessible (%): 10 (within arms reach?) Potential for air erosion? No
Proximity to repair items?: 1' Influence of vibration ?: yes Comments: _____

B (317) CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

A (318) EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

4 (319) PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

C (320) PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

F, G, H, E (330) RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	2	2	2						
Sample number	4147	4158	4191						
(%) (341, 343, 345, 347, 349, 351, 353, 355, 357)	35	28	0						
TYPE (342, 344, 346, 348, 350, 352, 354, 356, 358)	A	A							

*Explain in comments section on reverse of form if necessary.

3 (9) RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building.

Area # (360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392)	1	3	4															
SCORE (361, 363, 365, 367, 369, 371, 373, 375, 377, 379, 381, 383, 385, 387, 389, 391, 393)	PD10	D39	D39															

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score D31 (201) Rank 3 (202) of 18 (203)

Claimant COMTRALANT (103) EFD Southern Division (104) Homogeneous area # 6 (204) Homo. area (SF/LF) 750a (205)

POC M.K. Patterson (105) Phone 803/743-1700 (106) DDI. #647 (107) Contains friable ACM [Yes/No] Yes (206) Public access [Yes/No] No (207)

Prop Rec # 210001 (108) Bldg area (SF) 35,472 (109) Contractor & inspector name Westinghouse/T. Spivey (208) Survey date 10/17/90 (209)

Area Use Facility (110) Cat Code 17120 (111) Yr built 1965 (112)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

A (301) BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

F (302) BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

B (303) FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

B (311) ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

O (312) ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [UM]asbestos-cement pipe [EI]duct
[FI]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Pipe elbows*

75 (313A) ea (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping 2-12 (314) DIAMETER in inches for piping.

C (315) QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

A (316) DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

Damage: Percent 1 Extent: (a) localized___ (b)distributed___ Type: (a)Deteriorating___(b)Water___(c) Physical___
Amt. exposed (%):____ Amt. accessible (%):_____(within arms reach?) Potential for air erosion?____
Proximity to repair items?:____Influence of vibration ?:____Comments:_____

B (317) CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

B (318) EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

16 (319) PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

C (320) PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

F,H,K (330) RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	6		6		6		6		6		6									
Sample number	4177		4189		3271		4179		4199		4182									
(%)	2/2	341	10	343	2	345	40	347	2	349	4/4	351		353		355		357		
TYPE	A/B	342	B	344	B	346	A	348	B	350	A/B	352		354		356		358		

*Explain in comments section on reverse of form if necessary.

3 (9) RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building.

Area #	1	360	2	362	3	364	4	366	5	368	7	370	8	372	9	374	10	376		378
SCORE	O	361	O	363	PD28	365	O	367	PD14	369	PD16	371	D28	373	PD14	375	D26	377		379

Area #		380		382		384		386		388		390		392						
SCORE		381		383		385		387		389		391		393						

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score D 28 (201) Rank 4 of 15 (202-203)

Claimant COMTRALANT (103) EFD Southern Division (104) Homogeneous area # 1 (204) Homo. area (SF/LF) 300 SF (205)

POC M.K. Patterson (105) Phone 803/743-1700 (106) BDL. # 1351 (107) Contains friable ACM [Yes/No] Yes (206) Public access [Yes/No] No (207)

Prop Rec # _____ (108) Bldg area (SF) 90 (109) Contractor & inspector name Westinghouse/T. Spivey (208) Survey date 10/16/90 (209)

Area Use Paint Locker (110) Cat Code 84209 (111) Yr built (112)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

F 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

H 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

H 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]troweled-on [H]loose fill [I]other _____*

BT 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [EI]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

30 (313A) S (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping. DIAMETER in inches for piping. (314)

C 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

A 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

Damage: Percent 20 Extent: (a) localized ___ (b) distributed ✓ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ✓
Amt. exposed (%): 50 Amt. accessible (%): 100 (within arms reach?) Potential for air erosion? No
Proximity to repair items?: NA Influence of vibration ?: No Comments: * See Reverse

B 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

B 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

16 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

C 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

D,G,K 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	1								
Sample number	135-01								
(%)	10/2 (341)	(343)	(345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	A/B (342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

*Explain in comments section on reverse of form if necessary.

^ RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building.

Area #	NA (360)	(362)	(364)	(366)	(368)	(370)	(372)	(374)	(376)	(378)	(380)	(382)	(384)	(386)	(388)	(390)	(392)
SCORE	NA (361)	(363)	(365)	(367)	(369)	(371)	(373)	(375)	(377)	(379)	(381)	(383)	(385)	(387)	(389)	(391)	(393)

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

Facility is used for flamable storage. Interior walls are perforated fiber board with the insulation between interior & exterior walls. Areas of the interior walls are damaged and insulation material is highly friable.

NAVFAC FORM 5100/32 rev 05/01/89

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score PD 14 (201) Rank 5 of 18 (202) (203)

Claimant COMTRALANT (103) EFD Southern Division (104) Homogeneous area # 3 (204) Homo. area (SF) 9,600 (205)

POM K. Patterson (105) Phone 803/743-1700 (106) Bldg. # 643 (107) Contains friable ACM [Yes/No] No (206) Public access [Yes/No] No (207)

Prop Rec # 210007 (108) Bldg area (SF) 48,200 (109) Contractor & inspector name Westinghouse/T. Spivey (208) Survey date 10/19/90 (209)

Area Use Training Facility (110) Cat Code 17120 (111) Yr built 1969 (112)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

D 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

G 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

O 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BT]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [EI]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Duct Mastic *

9,600 (313A) S (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping. DIAMETER in inches for piping. (314)

A 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

D 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

amage: Percent 0 Extent: (a) localized___ (b)distributed___ Type: (a)Deteriorating___ (b)Water___ (c) Physical___
Amt. exposed (%): 0 Amt. accessible (%): 0 (within arms reach?) Potential for air erosion? No
Proximity to repair items?: 1" Influence of vibration ?: No Comments:_____

D 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

A 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

>100 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

A 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

G,H 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area # 3

Sample number 643-03

(%)	10 (341)	(343)	(345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	A (342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

*Explain in comments section on reverse of form if necessary.

RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building.

Area #	1 (360)	2 (362)	4 (364)	5 (366)	6 (368)	7 (370)	8 (372)	(374)	(376)	(378)	(380)	(382)	(384)	(386)	(388)	(390)	(392)
SCORE	0 (361)	0 (363)	0 (365)	0 (367)	0 (369)	0 (371)	0 (373)	(375)	(377)	(379)	(381)	(383)	(385)	(387)	(389)	(391)	(393)

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

6/3-03 Collected in Rm 207 above Ceiling

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score PD10 (201) Rank 6 (202) of 18 (203)

Claimant COMTRALANT (103) EFD Southern Division (104) Homogeneous area # 1 (204) Homo. area (SF)/(LF) 600 (205)

POC M.K. Patterson (105) Phone 803/743-1799 (106) BLDG. # 1715 (107) Contains friable ACM (Yes/No) Yes (206) Public access (Yes/No) No (207)

Prop Rec # 200078 (108) Bldg area (SF) 1240 (109) Contractor & inspector name Westinghouse/T. Spivey (208) Survey date 10/16/90 (209)

Area Use Maintenance Shop (110) Cat Code 17120 (111) Yr built 1968 (112)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC1729

F 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

K 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

G 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

GS 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [EI]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

600 (313A) S (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping DIAMETER in inches for piping. (314)

C 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

C 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

Damage: Percent 0 Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): 100 Amt. accessible (%): 0 (within arms reach?) Potential for air erosion? No
Proximity to repair items?: NA Influence of vibration ?: No Comments: _____

D 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

A 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

16 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

C 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

G,H 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	1	1	1						
Sample number	1715-01	1715-02	1715-03						
(%)	<1 (341)	<1 (343)	<1 (345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	C (342)	C (344)	C (346)	(348)	(350)	(352)	(354)	(356)	(358)

*Explain in comments section on reverse of form if necessary.

D 9 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building.	Area #	NA (360)	(362)	(364)	(366)	(368)	(370)	(372)	(374)	(376)	(378)	(380)	(382)	(384)	(386)	(388)	(390)	(392)
	SCORE	(361)	(363)	(365)	(367)	(369)	(371)	(373)	(375)	(377)	(379)	(381)	(383)	(385)	(387)	(389)	(391)	(393)

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

Samples Collected from shop over ceiling

plaster type material

NAVFAC FORM 5100/32 rev 05/01/89

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score -0- (201) Rank 7 (202) of 18 (203)

Claimant COMTRALANT (103) EFD Southern Division (104) Homogeneous area # -0- (204) Homo. area (SF/LF) NA (205)

POC M.K. Patterson (105) Phone 803/743-1700 (106) Bldg. # 203 (107) Contains friable ACM [Yes/No] No (206) Public access [Yes/No] No (207)

Prop Rec # 200004 (108) Bldg area (SF) 64 (109) Contractor & inspector name Westinghouse T. Spivey (208) Survey date 10/15/90 (209)

Area Use Paint Storage (110) Cat Code 17120 (111) Yr built 1956 (112)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC1729

J 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

H 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

NA 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

NA 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [EI]duct
[FI]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NI]steam pipe [O]other _____*

NA 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping 314 DIAMETER in inches for piping.

NA 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

amage: Percent NA Extent: (a) localized___ (b)distributed___ Type: (a)Deteriorating___(b)Water___(c) Physical___
Amt. exposed (%):____ Amt. accessible (%):_____(within arms reach?) Potential for air erosion?____
Proximity to repair items?:____Influence of vibration ?:____Comments:_____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area # NA

Sample number NA

(%) 341 343 345 347 349 351 353 355 357

TYPE 342 344 346 348 350 352 354 356 358

*Explain in comments section on reverse of form if necessary.

NA 9 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building.

Area # NA 360 362 364 366 368 370 372 374 376 378 380 382 384 386 388 390 392

SCORE NA 361 363 365 367 369 371 373 375 377 379 381 383 385 387 389 391 393

COMMENTS

Include comments on NAVOSH OAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score 0 (201) Rank 8 (202) of 18 (203)

Claimant COMTRALANT (103) EFD Southern Division (104) Homogeneous area # 1 (204) Homo. area (SF/LF) 4505F (205)

POC M.K. Patterson (105) Phone 803/743-1799 (106) Bldg. # 204 (107) Contains friable ACM [Yes/No] No (206) Public access [Yes/No] No (207)

Prop Rec # 000002 (108) Bldg area (SF) 800 (109) Contractor & inspector name Westinghouse/T. Spivey (208) Survey date 10/15/90 (209)

Area Use Pump House (110) Cat Code 87209 (111) Yr built 1956 (112)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

E 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

E 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

G 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

O 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [EI]duct
[FI]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Tank Mastic*

450 (313A) S (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping. DIAMETER in inches for piping. (314)

C 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

Damage: Percent___ Extent: (a) localized___ (b) distributed___ Type: (a) Deteriorating___ (b) Water___ (c) Physical___
Amt. exposed (%):_____ Amt. accessible (%):_____ (within arms reach?) Potential for air erosion?____
Proximity to repair items?:____ Influence of vibration ?:____ Comments:_____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (319)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	1								
Sample number	20401								
(%)	0 (341)	(343)	(345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	(342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

*Explain in comments section on reverse of form if necessary.

F RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building.	Area # NA	(360)	(362)	(364)	(366)	(368)	(370)	(372)	(374)	(376)	(378)	(380)	(382)	(384)	(386)	(388)	(390)	(392)
	SCORE	(361)	(363)	(365)	(367)	(369)	(371)	(373)	(375)	(377)	(379)	(381)	(383)	(385)	(387)	(389)	(391)	(393)

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score -0- (201) Rank 9 (202) of 18 (203)

Claimant COMTRALANT (103) EFD Southern Division (104) Homogeneous area # -0- (204) Homo. area (SF/LF) NA (205)

POM M.K. Patterson (105) Phone 803/743-1799 (106) BDI. # 649 (107) Contains friable ACM [Yes/No] No (206) Public access [Yes/No] No (207)

Prop Rec # 210005 (108) Bldg area (SF) 2744 (109) Contractor & inspector name Westinghouse/T. Spivey (208) Survey date 10/18/90 (209)

Area Use Storage (110) Cat Code 17120 (111) Yr built 1967 (112)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

D 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

H 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

NA 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

NA 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [EI]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [JM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

NA 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping 314 DIAMETER in inches for piping.

NA 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

Damage: Percent NA Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ___ Amt. accessible (%): ___ (within arms reach?) Potential for air erosion? ___
Proximity to repair items?: ___ Influence of vibration ?: ___ Comments: _____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area # NA

Sample number NA

(%)	341	343	345	347	349	351	353	355	357
TYPE	342	344	346	348	350	352	354	356	358

*Explain in comments section on reverse of form if necessary.

NA 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building.

Area # NA	360	362	364	366	368	370	372	374	376	378	380	382	384	386	388	390	392
SCORE NA	361	363	365	367	369	371	373	375	377	379	381	383	385	387	389	391	393

COMMENTS

.nclude comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score 0 (201) Rank 10 (202) of 18 (203)

Claimant COMTRALANT (103) CFO Southern Division (104) Homogeneous area # 1 (204) Homo. area (SF/LF) 240 (205)

POC M.K. Patterson (105) Phone 803/743-1700 (106) DDI. # 1303 (107) Contains friable ACM [Yes/No] NO (206) Public access [Yes/No] NO (207)

Prop Rec # 200010 (108) Bldg area (SF) 6,237 (109) Contractor & inspector name Westinghouse T. Spivey (208) Survey date 10/15/90 (209)

Area Use Wet Trainer (110) Cat Code 17120 (111) Yr built 1953 (112)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC1729

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

D 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

I 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other Floor tile *

O 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [EI]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Floor tile *

240 (313A) S (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping. DIAMETER in inches for piping. (314)

C 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

D 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

amage: Percent 0 Extent: (a) localized___ (b)distributed___ Type: (a)Deteriorating___ (b)Water___ (c) Physical___
Amt. exposed (%):_____ Amt. accessible (%):_____ (within arms reach?) Potential for air erosion?____
Proximity to repair items?:____ Influence of vibration ?:____ Comments:_____

D 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

A 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

5 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

D 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	1	1							
Sample number	01	02							
(%)	0 (341)	0 (343)	(345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	(342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

*Explain in comments section on reverse of form if necessary.

F RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building.	Area # NA (360)	(362)	(364)	(366)	(368)	(370)	(372)	(374)	(376)	(378)	(380)	(382)	(384)	(386)	(388)	(390)	(392)
	SCORE (361)	(363)	(365)	(367)	(369)	(371)	(373)	(375)	(377)	(379)	(381)	(383)	(385)	(387)	(389)	(391)	(393)

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score (201) -0- Rank (202) 11 of (203) 18

Claimant COMTRALANT (103) EFD Southern Division (104) Homogeneous area # (204) 1 Homo. area (SF/LF) (205) NA

POC M.K. Patterson (105) Phone 803/743-1799 (106) Bldg. # (107) 1309 Contains friable ACM (Yes/No) (206) No Public access (Yes/No) (207) No

Prop Rec # (108) 2000/6 Bldg area (SF) (109) 900 Contractor & inspector name (208) Westinghouse/T. Spivey Survey date (209) 10/22/90

Area Use (110) Fire Fighting Cat Code (111) 17945 Yr built (112) 1956

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

U 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other Fire Fighting Training

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

C 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

O 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [EI]duct
[FI]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JF]hot water tank [KI]boiler
[LS]structure fireproofing [MM] vinyl flooring [NI]steam pipe [O]other Fire Brick*

900 (313A) S (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping DIAMETER in inches for piping. (314)

C 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

C 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

Damage: Percent NA Extent: (a) localized___ (b) distributed___ Type: (a) Deteriorating___ (b) Water___ (c) Physical___
Amt. exposed (%):____ Amt. accessible (%):____ (within arms reach?) Potential for air erosion?____
Proximity to repair items?:____ Influence of vibration ?:____ Comments:_____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	1	1							
Sample number	01	02							
(%) (341, 343, 345, 347, 349, 351, 353, 355, 357)	0	0							
TYPE (342, 344, 346, 348, 350, 352, 354, 356, 358)									

*Explain in comments section on reverse of form if necessary.

E 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building.

Area #	NA																	
	360	362	364	366	368	370	372	374	376	378	380	382	384	386	388	390	392	
SCORE																		
	361	363	365	367	369	371	373	375	377	379	381	383	385	387	389	391	393	

COMMENTS

Include comments on NAVOSH OAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score 0 (201) Rank 12 of 18 (202/203)

Claimant COMTRALANT (103) EFD Southern Division (104) Homogeneous area # 1 (204) Homo. area (SF/LF) NA (205)

POC M.K. Patterson (105) Phone 803/743-1799 (106) BDI. # 1310 (107) Contains friable ACM (Yes/No) No (206) Public access (Yes/No) No (207)

Prop Rec # 200015 (108) Bldg area (SF) 1228 (109) Contractor & inspector name Westinghouse T. Spivey (208) Survey date 10/22/90 (209)

Area Use Fire Fighting (110) Cat Code 17945 (111) Yr built 1956 (112)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC1729

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

H 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other Fire Fighting training

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

C 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

O 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [CM]gasket/seal [PM]transite [UM]asbestos-cement pipe [EI]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other Fire Brick*

1228 (313A) S (313B) QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping DIAMETER in inches for piping. (314)

B 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

C 316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

Usage: Percent NA Extent: (a) localized ___ (b) distributed ___ Type: (a) Deteriorating ___ (b) Water ___ (c) Physical ___
Amt. exposed (%): ____ Amt. accessible (%): ____ (within arms reach?) Potential for air erosion? ____
Proximity to repair items?: ____ Influence of vibration ?: ____ Comments: _____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	1								
Sample number	01								
(%)	0 (341)	(343)	(345)	(347)	(349)	(351)	(353)	(355)	(357)
TYPE	(342)	(344)	(346)	(348)	(350)	(352)	(354)	(356)	(358)

*Explain in comments section on reverse of form if necessary.

RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building.	Area # NA	360	362	364	366	368	370	372	374	376	378	380	382	384	386	388	390	392
	SCORE	361	363	365	367	369	371	373	375	377	379	381	383	385	387	389	391	393

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score -0- (201) Rank 13 (202) of 18 (203)

Claimant COMTRALANT (103) EFD Southern Division (104) Homogeneous area # -0- (204) Homo. area (SF/LF) NA (205)

POM K. Patterson (105) Phone 803/743-1700 (106) BDI. # 1313 (107) Contains friable ACM [Yes/No] No (206) Public access [Yes/No] No (207)

Prop Rec # 200003 (108) Bldg area (SF) 1020 (109) Contractor & inspector name Westinghouse T. Spivey (200) Survey date 10/15/90 (209)

Area Use Gen Locker (110) Cat Code 17120 (111) Yr built 1956 (112)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

H,G 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

NA 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

NA 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [EI]duct
[FI]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

NA 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping 314 DIAMETER in inches for piping.

NA 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

amage: Percent NA Extent: (a) localized___ (b)distributed___ Type: (a)Deteriorating___(b)Water___(c) Physical___
Amt. exposed (%):____ Amt. accessible (%):____(within arms reach?) Potential for air erosion?____
Proximity to repair items?:____Influence of vibration ?:____Comments:_____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	NA								
Sample number	NA								
(%)	NA 341	343	345	347	349	351	353	355	357
TYPE	342	344	346	348	350	352	354	356	358

*Explain in comments section on reverse of form if necessary.

NA RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building.	Area #	NA 360	362	364	366	368	370	372	374	376	378	380	382	384	386	388	390	392
	SCORE	NA 361	363	365	367	369	371	373	375	377	379	381	383	385	387	389	391	393

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score 0 (201) Rank 14 (202) of 18 (203)

Claimant COMTRALANT (103) EFD Southern Division (104) Homogeneous area # NA (204) Homo. area (SF/LF) NA (205)

POC M.K. Patterson (105) Phone 803/743-1700 (106) Bldg. # 1352 (107) Contains friable ACM (Yes/No) No (206) Public access (Yes/No) No (207)

Prop Rec # _____ (108) Bldg area (SF) 100 (109) Contractor & inspector name Westinghouse T. Spivey (208) Survey date 10/19/90 (209)

Area Use Air Compressor (110) Cat Code 84209 (111) Yr built (112)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

F 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

F 302 BUILDING OCSC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

NA 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

NA 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [EI]duct
[FI]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

NA 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping 314 DIAMETER in inches for piping.

NA 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

Damage: Percent NA Extent: (a) localized___ (b)distributed___ Type: (a)Deteriorating___ (b)Water___ (c) Physical___
Amt. exposed (%):____ Amt. accessible (%):_____ (within arms reach?) Potential for air erosion?____
Proximity to repair items?:____ Influence of vibration ?:____ Comments:_____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	NA								
Sample number	NA								
(%)	NA 341	343	345	347	349	351	353	355	357
TYPE	NA 342	344	346	348	350	352	354	356	358

*Explain in comments section on reverse of form if necessary.

NA 339 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building.	Area #	NA 360	362	364	366	368	370	372	374	376	378	380	382	384	386	388	390	392
	SCORE	NA 361	363	365	367	369	371	373	375	377	379	381	383	385	387	389	391	393

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score 0 (201) Rank 15 of 18 (202) (203)

Claimant COMTRALANT (103) EFD Southern Division (104) Homogeneous area # NA (204) Homo. area (SF/LF) NA (205)

POC M.K. Patterson (105) Phone 803/743-1700 (106) BBL # 1722 (107) Contains friable ACM (Yes/No) No (206) Public access (Yes/No) No (207)

Prop Rec # 210008 (108) Bldg area (SF) 90 (109) Contractor & inspector name Westinghouse / T. Spivey (208) Survey date 10/19/90 (209)

Area Use Generator (110) Cat Code 17945 (111) Yr built 1969 (112)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

F 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other_____*

E 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other_____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

NA 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other_____*

NA 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BT]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DT]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

NA 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping 314 DIAMETER in inches for piping.

NA 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

Image: Percent NA Extent: (a) localized___ (b)distributed___ Type: (a)Deteriorating___(b)Water___(c) Physical___
Amt. exposed (%):____ Amt. accessible (%):_____(within arms reach?) Potential for air erosion?____
Proximity to repair items?:___ Influence of vibration ?:____Comments:_____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other_____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	NA								
Sample number	NA								
(%)	NA 341	343	345	347	349	351	353	355	357
TYPE	NA 342	344	346	348	350	352	354	356	358

*Explain in comments section on reverse of form if necessary.

RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building.

Area #	NA 360	362	364	366	368	370	372	374	376	378	380	382	384	386	388	390	392
SCORE	361	363	365	367	369	371	373	375	377	379	381	383	385	387	389	391	393

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score -0- (201) Rank 16 of 18 (202) (203)

Claimant COMTRALANT (103) EFD Southern Division (104) Homogeneous area # -0- (204) Homo. area (SF/LF) NA (205)

POC M.K. Patterson (105) Phone 803/743-1700 (106) BLDG. # 1744 (107) Contains friable ACM (Yes/No) No (206) Public access (Yes/No) No (207)

Prop Rec # 200029 (108) Bldg area (SF) 231 (109) Contractor & inspector name Westinghouse / T. Spivey (208) Survey date 10/15/90 (209)

Area Use Lounge (110) Cat Code 17120 (111) Yr built 1970 (112)

Inspector Signature, State of Accreditation/Accred. #
Timothy Spivey SC 1729

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

H 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other lounge*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

NA 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

NA 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [EI]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

NA 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping 314 DIAMETER in inches for piping.

NA 315 QUANTITY RANGE: Enter letter for closest range [A] >5000 units [B] 1000-5000 units [C] <1000 units

316 DEGREE OF FRIABILITY: Enter letter describing friability [A] high [B] moderate [C] low [D] non

Damage: Percent NA Extent: (a) localized___ (b)distributed___ Type: (a)Deteriorating___ (b)Water___ (c) Physical___
Amt. exposed (%):____ Amt. accessible (%):_____(within arms reach?) Potential for air erosion?____
Proximity to repair items?:____Influence of vibration ?:____Comments:_____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	NA								
Sample number	NA								
(%)	341	343	345	347	349	351	353	355	357
TYPE	342	344	346	348	350	352	354	356	358

*Explain in comments section on reverse of form if necessary.

* RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building. Area #	NA	360	362	364	366	368	370	372	374	376	378	380	382	384	386	388	390	392
SCORE	NA	361	363	365	367	369	371	373	375	377	379	381	383	385	387	389	391	393

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score -0- (201) Rank 17 (202) of 18 (203)

Claimant COMTRALANT (103) EFD Southern Division (104) Homogeneous area # -0- (204) Homo. area (SF/LF) NA (205)

POC M.K. Patterson (105) Phone 803/743-1799 (106) BLDG. # 1819 (107) Contains friable ACM (Yes/No) No (206) Public access (Yes/No) No (207)

Prop Rec # _____ (108) Bldg area (SF) 450 (109) Contractor & inspector name Westinghouse/T. Spivey (208) Survey date 10/16/90 (209)

Area Use Lawn Shed (110) Cat Code 84209 (111) Yr built (112)

Inspector Signature, State of Accreditation/Accred. #

Timothy Spivey SC 1729

F 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

K 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other _____*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

NA 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

NA 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [UM]asbestos-cement pipe [DI]duct
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

NA 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping 314 DIAMETER in inches for piping.

NA 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

Damage: Percent NA Extent: (a) localized___ (b)distributed___ Type: (a)Deteriorating___ (b)Water___ (c) Physical___
Amt. exposed (%):____ Amt. accessible (%):____ (within arms reach?) Potential for air erosion?____
Proximity to repair items?:____ Influence of vibration ?:____ Comments:_____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

NA 330 RECOMMENDED ACTION: Enter one or more letters that best describe priorities for recommended action
[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area # NA

Sample number NA

(%) 341 343 345 347 349 351 353 355 357

TYPE 342 344 346 348 350 352 354 356 358

*Explain in comments section on reverse of form if necessary.

NA 359 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building.

Area # NA 360 362 364 366 368 370 372 374 376 378 380 382 384 386 388 390 392

SCORE NA 361 363 365 367 369 371 373 375 377 379 381 383 385 387 389 391 393

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

ASBESTOS FACILITY RATING/RANKING FORM
(For summary of worst homogeneous area of each building)

UIC N62603 (101) Activity FMWTC Charleston, S.C. (102) Facility Rating Score -0- (201) Rank 18 (202) of 18 (203)

Claimant COMTRALANT (103) EFD Southern Division (104) Homogeneous area # -0- (204) Homo. area (SF/LF) NA (205)

POC M.K. Patterson (105) Phone 803/743-1799 (106) Bldg. # 1534 (107) Contains friable ACM (Yes/No) No (206) Public access (Yes/No) No (207)

Prop Rec # _____ (108) Bldg area (SF) 500 (109) Contractor & inspector name Westinghouse T. Sowey (208) Survey date 10/15/90 (209)

Area Use Laundry (110) Cat Code 84209 (111) Yr built (112)

Inspector Signature, State of Accreditation/Accred. #

Timothy Sowey SC 1729

A 301 BUILDING TYPE: (Determine during pre-inspection meeting) Enter one of following letters
[A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities
[F] maintenance/production [G] administrative [H] medical/dental [I] other _____*

H 302 BUILDING DESC.: (Determine during pre-inspection meeting) Enter one of following letters
[A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other Laundry*

B 303 FACILITY CRITICALITY: (Determine during pre-inspection meeting) Enter one of following letters
[A] critical [B] essential [C] non-essential

NA 311 ASBESTOS FORM: Enter one of following letters [A]blanket [B]molded [C]preformed
[D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other _____*

NA 312 ASBESTOS FUNCTION: Enter one of following codes
[AS]acoustical insulation [BI]wall insulation [GM]gasket/seal [PM]transite [DM]asbestos-cement pipe [DI]duct
[FI]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other _____*

NA 313A 313B QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping 314 DIAMETER in inches for piping.

NA 315 QUANTITY RANGE: Enter letter for closest range
[A] >5000 units [B] 1000-5000 units [C] <1000 units

316 DEGREE OF FRIABILITY: Enter letter describing friability
[A] high [B] moderate [C] low [D] non

Damage: Percent NA Extent: (a) localized___ (b)distributed___ Type: (a)Deteriorating___ (b)Water___ (c) Physical___
Amt. exposed (%): ____ Amt. accessible (%): _____ (within arms reach?) Potential for air erosion? ____
Proximity to repair items?: ____ Influence of vibration ?: ____ Comments: _____

NA 317 CONDITION: Enter letter describing condition
[A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage
[D] ACBM w/potential for damage [E] no damage or no potential for damage

NA 318 EXPOSURE POTENTIAL: Enter letter best describing exposure potential
[A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

NA 319 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos

NA 320 PERSONS POTENTIALLY EXPOSED, RANGE: Enter letter of the range that best describes answer above (318)
[A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

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[A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other _____*

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophylite [F] actinolite

Homogeneous area #	NA								
Sample number	NA								
(%)	341	343	345	347	349	351	353	355	357
TYPE	342	344	346	348	350	352	354	356	358

*Explain in comments section on reverse of form if necessary.

F 9 RANGE: Enter letter for largest (%) [A] >40% [B] 15-40% [C] 1-15% [D] <1% [E] Non asbestos

Identify other homogeneous area numbers for this building.

Area #	NA	360	362	364	366	368	370	372	374	376	378	380	382	384	386	388	390	392
SCORE	NA	361	363	365	367	369	371	373	375	377	379	381	383	385	387	389	391	393

COMMENTS

Include comments on NAVOSH DAP/MIS format in appropriate narrative sections

Laboratory name and address:

NAVOSH DEFICIENCY ABATEMENT PROGRAM MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

13. HAZARD CONTROL ASSESSMENT

SAFETY	OR	HEALTH
(1) SPECIFIC HAZARD		(1) SPECIFIC HAZARD: Potential For Damage PD 10
(2) HAZARD VIOLATION (Regulation)		(2) HAZARD VIOLATION (Regulation): Facility Rating/Ranking Score #6 of 5
(3) PROBABILITY (Check one): A. LIKELY B. PROBABLE C. POSSIBLE D. UNLIKELY		(3) CONCENTRATION OF HAZARD: UNITS
(4) MOST LIKELY INJURY		(4) CONCENTRATION ABOVE CODE: YES NO
(5) DAYS LOST PER INCIDENT (Check one): A. 4200; B. 2300-4199; C. 1200-2499; D. 400-1199; E. 100-399; F. 30-99; G. LESS THAN 30		(5) CURRENT STANDARDS (Other must be same as item 3)
		(6) TIME BETWEEN EXPOSURE AND HARMFUL IMPACTS (Check one): A. IMMEDIATE B. IN MONTHS C. IN YEARS

(7) NORMAL WORKING POPULATION EXPOSED TO HAZARD (Employees) (Check one): A. 1-4 B. 5-9 C. 10-50 D. MORE THAN 50

(8) RATE OF EXPOSURE TO HAZARD (HOURS YEAR PER PERSON EXPOSED) (Check one): A. LESS THAN 40 B. 40-150 C. 151-959 D. 960-2000 E. MORE THAN 2000

(9) INSTALLED COST OF CORRECTIVE ACTION ($X10³) (Check one): A. LESS THAN 10 B. 10-60 C. 61-80 D. 81-100 E. MORE THAN 100

(10) CHANGE IN ANNUAL O&M COST ($X10³) (Check one): A. LESS THAN (5) B. (5)-0 C. 1-5 D. 6-10 E. MORE THAN 10

(11) TIME TO ACCOMPLISH THE CONSTRUCTION OF CORRECTIVE ACTION (Months) (Check one): A. 1-3 B. 4-6 C. 7-9 D. 10-12 E. 13-24 F. MORE THAN 24

SAFETY	OR	HEALTH
(11) UPON COMPLETION, WILL THE SAFETY PROJECT BE IN FULL LEGAL COMPLIANCE? (Check one): YES NO		(11) UPON COMPLETION, WHAT WILL THE ESTIMATED CONCENTRATION OF THE DESIGNATED HEALTH HAZARD BE? CONCENTRATION _____ THE UNITS MUST BE SAME AS ITEM 3.

(12) CHANGE IN ENERGY CONSUMPTION CAUSED BY CORRECTIVE ACTION (10^6 BTU/Year): A. LESS THAN 1-500 B. 1-500-0 C. 1-500 D. 501-1000 E. MORE THAN 1000

(13) EFFECTIVE LIFE OF CORRECTIVE ACTION (Years): A. MORE THAN 10 B. 5-10 C. 3-4 D. 1-2 E. LESS THAN 1

(14) POTENTIAL FOR RELOCATING THE PROCESS OF FUNCTION TO AVOID THE HAZARD (Check one): A. HIGH B. MEDIUM C. LOW

(15) EXPECTED LIFE OF HAZARDOUS OPERATION (Years) (Check one): A. MORE THAN 10 B. 6-10 C. 3-5 D. 1-2 E. LESS THAN 1

CAP/MIS PROJECT HAS BEEN REVIEWED AND APPROVED BY

	CODE	DATE
PUBLIC WORKS OFFICER (Signature)		
ACTIVITY HEALTH AND SAFETY OFFICER (Signature)		
INDUSTRIAL HYGIENIST (Health projects only) (Signature)		

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFAC INST 5100.14A

PROJECT NAME: Asbestos Assessment/Building 1715 | SERIAL NO | UIC: N62603

PROGRAM: Asbestos | FUNDING COMMAND | STATUS: PD (Preliminary Planning)

DATE PREPARED: Nov 90 | DATE INPUT | DATE REVISED | PRIORITY

AGENCY: DEPARTMENT OF THE NAVY

ACTIVITY: Fleet & Mine Warfare Training Center | ADDRESS: Charleston, South Carolina

NAVFAC CONTACT

NARRATIVE
(1 line of 65 positions per line including spaces and punctuation)

2. PROBLEM DESCRIPTION

The ceiling in the shop area of this building contains <1% asbestos. The material can be rendered Friable. Preventive measures and an O&M program should be employed until the material can be removed. The area above the ceiling (attic) is used for storage. This could damage the materials.

3. SPECIFIC HAZARD AND LOCATION.

Homogeneous Area	Condition	Facility Rating/Ranking
#1	Potential For Damage	PD 10 #1

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

4. INTERIM CONTROL MEASURES:

5. EFFECTIVENESS OF INTERIM CONTROL MEASURES

6. PROPOSED CORRECTIVE ACTION AND EFFECTIVENESS:

Home Area
#1 - Preventive Measures - O&M program

7. OTHER RELEVANT INFORMATION:
LOCAL CONTACT:

E.F.D. contact: Mike Patterson (ICC)
(803) 743-1799

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

8. APPLICABLE STANDARDS

29 CFR 1910.1001
29 CFR 1926.58
EPA 40 CFR 61 subpart M

9. ORIGINAL COST OF SAFETY AND HEALTH MEASURES: (IN THOUSANDS OF DOLLARS)

FY	CONSTRUCTION				~~REPAIR~~ Estimate			
	DESIGN	END	CONSTR	END	DESIGN	END	CONSTR	END
							.5	
	TOTAL				TOTAL			

Cost is for O&M

10. PROJECT SCHEDULE:

	ACTIVITY (MMM/YY)	REGULATION (MMM/YY)
DESIGN (START) (DDMMYYY)		Jun 86 (OSHA)
CONSTR (START)		
OPERATION (START)		
FINAL COMPLIANCE		

11. MISCELLANEOUS DATA:

APPROPRIATION: O&MN	REGIONAL MEDICAL CENTER
HEALTH CATEGORY	HAZARD SUBCATEGORY
HAZARD CATEGORY	VARIOUS LOCATIONS

12. BUILDINGS AFFECTED:

PROPERTY RECORD CARD NO(S)

#200028

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

13. HAZARD CONTROL ASSESSMENT

SAFETY | OR | HEALTH

(1) SPECIFIC HAZARD

(2) HAZARD VIOLATION (Regulation)

(3) PROBABILITY (Check one)
☐ A. LIKELY ☐ B. PROBABLE ☐ C. POSSIBLE ☐ D. UNLIKELY

(4) MOST LIKELY INJURY

(5) DAYS LOST PER INCIDENT (Check one)
☐ A. 4200 ☐ B. 2500-4199
☐ C. 1200-2499 ☐ D. 400-1199
☐ E. 100-399 ☐ F. 30-99
☐ G. LESS THAN 30

(6) NORMAL WORKING POPULATION EXPOSED TO HAZARD (Employees) (Check one)
☐ A. 1-4 ☐ B. 5-9 ☐ C. 10-50 ☐ D. MORE THAN 50

(7) RATE OF EXPOSURE TO HAZARD (HOURS/YEAR PER PERSON EXPOSED) (Check one)
☐ A. LESS THAN 40 ☐ B. 40-150 ☐ C. 151-959 ☐ D. 960-2000 ☐ E. MORE THAN 2000

(8) INSTALLED COST OF CORRECTIVE ACTION ($X10³) (Check one)
☐ A. LESS THAN 40 ☐ B. 40-60 ☐ C. 61-80 ☐ D. 81-100 ☐ E. MORE THAN 100

(9) CHANGE IN ANNUAL O&M COST ($X10³) (Check one)
☐ A. LESS THAN (-5) ☐ B. (-5)-0 ☐ C. 1-5 ☐ D. 6-10 ☐ E. MORE THAN 10

(10) TIME TO ACCOMPLISH THE CONSTRUCTION OF CORRECTIVE ACTION (Months) (Check one)
☐ A. 1-3 ☐ B. 4-6 ☐ C. 7-9 ☐ D. 10-12 ☐ E. 13-24 ☐ F. MORE THAN 24

SAFETY | OR | HEALTH

(11) UPON COMPLETION, WILL THE SAFETY PROJECT BE IN FULL LEGAL COMPLIANCE? (Check one)
☐ YES ☐ NO

(11) UPON COMPLETION, WHAT WILL BE ESTIMATED CONCENTRATION OF THE DESIGNATED HEALTH HAZARD BE?
CONCENTRATION _____ THE UNITS MUST BE SAME AS ITEM 3

(12) CHANGE IN ENERGY CONSUMPTION CAUSED BY CORRECTIVE ACTION (10^6 BTU/Year)
☐ A. LESS THAN (-500) ☐ B. (-500)-0 ☐ C. 1-500 ☐ D. 501-1000 ☐ E. MORE THAN 1000

(13) EFFECTIVE LIFE OF CORRECTIVE ACTION (Years)
☐ A. MORE THAN 10 ☐ B. 5-10 ☐ C. 3-4 ☐ D. 1-2 ☐ E. LESS THAN 1

(14) POTENTIAL FOR RELOCATING THE PROCESS OR FUNCTION TO AVOID THE HAZARD (Check one)
☐ A. HIGH ☐ B. MEDIUM ☐ C. LOW

(15) EXPECTED LIFE OF HAZARDOUS OPERATION (Years) (Check one)
☐ A. MORE THAN 10 ☐ B. 6-10 ☐ C. 3-5 ☐ D. 1-2 ☐ E. LESS THAN 1

DAP/MIS PROJECT HAS BEEN REVIEWED AND APPROVED BY

PUBLIC WORKS OFFICER (Signature)	CODE	DATE
ACTIVITY HEALTH AND SAFETY OFFICER (Signature)	CODE	DATE
INDUSTRIAL HYGIENIST (Health projects only) (Signature)	CODE	DATE

NEESA-3900/12 (REV. 7-86) PAGE 4 OF 4

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME: Asbestos Assessment / Building 202 | SERIAL NO | UIC: N62649.3

PROGRAM: Asbestos | FUND NO COMMAND | STATUS: PP (Preliminary Planning)

DATE PREPARED: Nov 90 | DATE INPUT | DATE REVISED | PRIORITY

AGENCY: DEPARTMENT OF THE NAVY

ACTIVITY: Fleet & Mine Warfare Training Center | LOCATION: Charleston, South Carolina

NAVFAC CONTACT

NARRATIVE
(Limit of 65 positions per line including spaces and punctuation)

2. PROBLEM DESCRIPTION

Homogeneous area #1 consits of severly damaged acoustical plaster ceiling material. This material should be removed to prevent personal exposure to asbestos and building contamination. Homogeneous areas #4 and #7 contain pipe elbow insulation which can be maintained under an O&M program until removal is necessary. Homogeneous area #8, valve/joint insulation, can be maintained under an O&M program as well as homogeneous area #9, air duct mastic. Homogeneous areas #6 and #10, Floor tiles, can be maintained under an O&M program.

3. SPECIFIC HAZARD AND LOCATION.

Homogeneous Area	Condition	Facility Rating/Ranking	
#1	Significant Damage	SD78	#1
#2	NA	NA	
#3	NA	NA	
#4	Damage	D54	#2
#5	NA	NA	
#6	Potential For Damage	PD7	#7
#7	Damage	D28	#3
#8	Potential For Damage	PD13	#6
#9	Potential For Damage	PD14	#5
#1	Damage	D21	#4

NEESA-3900/12 (REV. 7-86) CONTINUE ON REVERSE PAGE 1 OF 4

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

4. INTERIM CONTROL MEASURES

5. EFFECTIVENESS OF INTERIM CONTROL MEASURES.

6. PROPOSED CORRECTIVE ACTION AND EFFECTIVENESS:

Home Area
#1 Removal
#4, #6, #7, #8, #9, #10 O&M Program

7. OTHER RELEVANT INFORMATION:
LOCAL CONTACT:

EFD Contact: Mike Patterson (JCC) (803) 743-1799

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

8. APPLICABLE STANDARDS

29 CFR 1910.1001
29 CFR 1910.58
EPA 40 CFR 61 Subpart M

9. ORIGINAL COST OF SAFETY AND HEALTH MEASURES (IN THOUSANDS OF DOLLARS)

FY	CONSTRUCTION DESIGN	CONSTRUCTION END	CONSTRUCTION CONSTR	CONSTRUCTION END	~~REPAIR~~ Estimate DESIGN	END	CONSTR	END
					26		526	
	TOTAL				TOTAL			

Costs For: Removal O&M program

10. PROJECT SCHEDULE

	ACTIVITY (MMM/YY)	REGULATION (MMM/YY)
DESIGN (START) (DDMMM/YY)		Jan 86
CONSTR (START)		(OSHA)
OPERATION (START)		
FINAL COMPLIANCE		

11. MISCELLANEOUS DATA:

APPROPRIATION	REGIONAL MEDICAL CENTER
HEALTH CATEGORY: O&MN	HAZARD SUBCATEGORY
HAZARD CATEGORY	VARIOUS LOCATIONS

12. BUILDINGS AFFECTED:

PROPERTY RECORD CARD NO(S)

200001

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

13. HAZARD CONTROL ASSESSMENT

SAFETY OR HEALTH

(1) SPECIFIC HAZARD

(2) HAZARD VIOLATION (Regulation)

(3) PROBABILITY (Check one)

☐ A. LIKELY ☐ B. PROBABLE ☐ C. POSSIBLE ☐ D. UNLIKELY

(4) MOST LIKELY INJURY

(5) DAYS LOST PER INCIDENT (Check one)

☐ A. 4200 ☐ B. 2500-4199
☐ C. 1200-2499 ☐ D. 400-1199
☐ E. 100-399 ☐ F. 30-99
☐ G. LESS THAN 30

(6) NORMAL WORKING POPULATION EXPOSED TO HAZARD (Employees) (Check one)

☐ A. 1-4 ☐ B. 5-9 ☐ C. 10-50 ☐ D. MORE THAN 50

(7) RATE OF EXPOSURE TO HAZARD (HOURS/YEAR PER PERSON EXPOSED) (Check one)

☐ A. LESS THAN 40 ☐ B. 40-150 ☐ C. 151-959 ☐ D. 960-2000 ☐ E. MORE THAN 2000

(8) INSTALLED COST OF CORRECTIVE ACTION ($X10^3) (Check one)

☐ A. LESS THAN 40 ☐ B. 40-60 ☐ C. 61-80 ☐ D. 81-100 ☐ E. MORE THAN 100

(9) CHANGE IN ANNUAL O&M COST ($X10^3) (Check one)

☐ A. LESS THAN (-5) ☐ B. (-5)-0 ☐ C. 1-5 ☐ D. 6-10 ☐ E. MORE THAN 10

(10) TIME TO ACCOMPLISH THE CONSTRUCTION OF CORRECTIVE ACTION (Months) (Check one)

☐ A. 1-3 ☐ B. 4-6 ☐ C. 7-9 ☐ D. 10-12 ☐ E. 13-24 ☐ F. MORE THAN 24

SAFETY OR HEALTH

(11) UPON COMPLETION, WILL THE SAFETY PROJECT BE IN FULL LEGAL COMPLIANCE? (Check one)

☐ YES ☐ NO

(11) UPON COMPLETION, WHAT WILL THE ESTIMATED CONCENTRATION OF THE DESIGNATED HEALTH HAZARD BE?

CONCENTRATION _____ THE UNITS MUST BE SAME AS ITEM 3.

(12) CHANGE IN ENERGY CONSUMPTION CAUSED BY CORRECTIVE ACTION (10^3 BTU/Year)

☐ A. LESS THAN (-500) ☐ B. (-500)-0 ☐ C. 1-500 ☐ D. 501-1000 ☐ E. MORE THAN 1000

(13) EFFECTIVE LIFE OF CORRECTIVE ACTION (Years)

☐ A. MORE THAN 10 ☐ B. 5-10 ☐ C. 3-4 ☐ D. 1-2 ☐ E. LESS THAN 1

(14) POTENTIAL FOR RELOCATING THE PROCESS OF FUNCTION TO AVOID THE HAZARD (Check one)

☐ A. HIGH ☐ B. MEDIUM ☐ C. LOW

(15) EXPECTED LIFE OF HAZARDOUS OPERATION (Years) (Check one)

☐ A. MORE THAN 10 ☐ B. 6-10 ☐ C. 3-5 ☐ D. 1-2 ☐ E. LESS THAN 1

DAP/MIS PROJECT HAS BEEN REVIEWED AND APPROVED BY

	CODE	DATE
PUBLIC WORKS OFFICER (Signature)		
ACTIVITY HEALTH AND SAFETY OFFICER (Signature)		
INDUSTRIAL HYGIENIST (If health projects only) (Signature)		

NEESA-3900/12 (REV 7-86) PAGE 4 OF 4

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME: Asbestos Assessment / Building 645 | SERIAL NO | UIC: N62603

PROGRAM: Asbestos | FUNDING COMMAND | STATUS: PP (Preliminary Planning

DATE PREPARED: Nov 90 | DATE NEW | DATE REVISED | PROJ NO

AGENCY: DEPARTMENT OF THE NAVY

ACTIVITY: Fleet & Mine Warfare Training Center | ADDRESS: Charleston, South Carolina

NAVFAC CONTACT

NARRATIVE
(Limit of 65 positions per line including spaces and punctuation)

2. PROBLEM DESCRIPTION

Homogeneous area #2 contains damaged pipe elbow insulation. These elbows should be repaired and maintained under an O&M program until removal is necessary. Homogeneous area #3 contains damage ceiling tile. Preventive measures should be employed to prevent disturbance of the ceiling tiles until they can be removed. Homogeneous areas #1 and #4 are non-friable materials and can be maintained under an O&M program.

3. SPECIFIC HAZARD AND LOCATION:

Homogeneous Area	Condition	Facility Rating	Ranking
#1	Potential for Damage	PD10	#4
#2	Damage	D46	#1
#3	Damage	D39	#2
#4	Damage	D39	#3

NEESA-3900/12 (REV 7-86) CONTINUE ON REVERSE PAGE 1 OF 4

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

4. INTERIM CONTROL MEASURES

5. EFFECTIVENESS OF INTERIM CONTROL MEASURES.

6. PROPOSED CORRECTIVE ACTION AND EFFECTIVENESS

Homo. Area

1 O&M program

2&4 Repair, O&M program

3 Preventive Measures - Removal

7. OTHER RELEVANT INFORMATION.
LOCAL CONTACT:

EFD contact: Mike Patterson (FCC)
(803) 743-1799

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

8. APPLICABLE STANDARDS

29C FR 1910.1001

29 CFR 1926.58

EPA 40 CFR 61 subpart M

9. ORIGINAL COST OF SAFETY AND HEALTH MEASURES. (IN THOUSANDS OF DOLLARS)

FY	CONSTRUCTION DESIGN	END	CONSTR	END	REPAIR Estimate DESIGN	END	CONSTR	END
					1		4.2	
	TOTAL				TOTAL			

Costs for: O&M, Repair, Removal

10. PROJECT SCHEDULE

	ACTIVITY (MMM/YY)	REGULATION (MMM/YY)
DESIGN (START) (DD/MM/YYY)		
CONSTR (START)		Jun 86 (OSHA)
OPERATION (START)		
FINAL COMPLIANCE		

11. MISCELLANEOUS DATA:

APPROPRIATION: OE MN

REGIONAL MEDICAL CENTER

HEALTH CATEGORY

HAZARD SUBCATEGORY

HAZARD CATEGORY

VARIOUS LOCATIONS

12. BUILDINGS AFFECTED:

PROPERTY RECORD CARD NO(S)

210006

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

13. HAZARD CONTROL ASSESSMENT

SAFETY	OR	HEALTH
(1) SPECIFIC HAZARD		(1) SPECIFIC HAZARD: Damage D28
(2) HAZARD VIOLATION (Regulation)		(2) HAZARD VIOLATION (Regulation): Facility Rating/Ranking Score #4 of 18
(3) PROBABILITY (Check one): ☐ A. LIKELY ☐ B. PROBABLE ☐ C. POSSIBLE ☐ D. UNLIKELY		(3) CONCENTRATION OF HAZARD: UNITS
(4) MOST LIKELY INJURY		IS CONCENTRATION ABOVE CEILING? ☐ YES ☐ NO
(5) DAYS LOST PER INCIDENT (Check one): ☐ A. 1200 ☐ B. 2500-4150 ☐ C. 1200-2499 ☐ D. 400-1199 ☐ E. 100-399 ☐ F. 30-99 ☐ G. LESS THAN 30		(4) CURRENT STANDARDS (Units must be same as Item 3)
		(5) TIME BETWEEN EXPOSURE AND HARMFUL IMPACTS (Check one): ☐ A. IMMEDIATE ☐ B. IN MONTHS ☐ C. IN YEARS

(6) NORMAL WORKING POPULATION EXPOSED TO HAZARD (Employees) (Check one): ☐ A. 1-4 ☐ B. 5-9 ☐ C. 10-50 ☐ D. MORE THAN 50

(7) RATE OF EXPOSURE TO HAZARD (HOURLY EMPLOYEE EXPOSURE) (Check one): ☐ A. LESS THAN 10 ☐ B. 40-160 ☐ C. 161-959 ☐ D. 960-2000 ☐ E. MORE THAN 2000

(8) INSTALLED COST OF CORRECTIVE ACTION ($x10^3$) (Check one): ☐ A. LESS THAN 40 ☐ B. 40-60 ☐ C. 61-80 ☐ D. 81-100 ☐ E. MORE THAN 100

(9) CHANGE IN ANNUAL O&M COST ($x10^3$) (Check one): ☐ A. LESS THAN -51 ☐ B. -51-0 ☐ C. 1-5 ☐ D. 6-10 ☐ E. MORE THAN 10

(10) TIME TO ACCOMPLISH THE CONSTRUCTION OF CORRECTIVE ACTION (Months) (Check one): ☐ A. 1-3 ☐ B. 4-6 ☐ C. 7-9 ☐ D. 10-12 ☐ E. 13-24 ☐ F. MORE THAN 24

SAFETY	OR	HEALTH
(11) UPON COMPLETION WILL THE SAFETY PROJECT BE IN TOTAL LEGAL COMPLIANCE? (Check one): ☐ YES ☐ NO		(11) UPON COMPLETION, WHAT WILL THE ESTIMATED CONCENTRATION OF THE DESIGNATED HEALTH HAZARD BE? CONCENTRATION ___ THE UNITS MUST BE SAME AS ITEM 3.

(12) CHANGE IN ENERGY CONSUMPTION CAUSED BY CORRECTIVE ACTION (10^6 BTU/Year): ☐ A. LESS THAN -5000 ☐ B. -5000-0 ☐ C. 1-500 ☐ D. 501-1000 ☐ E. MORE THAN 1000

(13) EFFECTIVE LIFE OF CORRECTIVE ACTION (Years): ☐ A. MORE THAN 10 ☐ B. 5-10 ☐ C. 3-4 ☐ D. 1-2 ☐ E. LESS THAN 1

(14) POTENTIAL FOR RELOCATING THE PROCESS OF FUNCTION TO AVOID THE HAZARD (Check one): ☐ A. HIGH ☐ B. MEDIUM ☐ C. LOW

(15) EXPECTED LIFE OF HAZARDOUS OPERATION (Years) (Check one): ☐ A. MORE THAN 10 ☐ B. 6-10 ☐ C. 3-5 ☐ D. 1-2 ☐ E. LESS THAN 1

DAP/MIS PROJECT HAS BEEN REVIEWED AND APPROVED BY

	CODE	DATE
PUBLIC WORKS OFFICER (Signature)		
ACTIVITY HEALTH AND SAFETY OFFICER (Signature)	CODE	DATE
INDUSTRIAL HYGIENIST (Health projects only) (Signature)	CODE	DATE

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME: Asbestos Assessment/Building 1351 | SERIAL NO | UIC: N62603

PROGRAM: Asbestos | FUNDING COMMAND | STATUS: PP (Preliminary Planning)

DATE PREPARED: Nov 90 | DATE INPUT | DATE REVISED | PROJ NO

AGENCY: DEPARTMENT OF THE NAVY

ACTIVITY: Fleet & Mine Warfare Training Facility | ADDRESS: Charleston, South Carolina

NAVFAC CONTACT

NARRATIVE
(Limit of 65 positions per line including spaces and punctuation)

2. PROBLEM DESCRIPTION:

The walls of this Facility are insulated with highly friable asbestos containing material.

3. SPECIFIC HAZARD AND LOCATION:

Homogeneous Area	Condition	Facility Rating/Ranking
#1	Damage	D28 #1

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

4. INTERIM CONTROL MEASURES

5. EFFECTIVENESS OF INTERIM CONTROL MEASURES

6. PROPOSED CORRECTIVE ACTION AND EFFECTIVENESS

Home Area

#1. Restrict Access, Preventive measures, Remove

7. OTHER RELEVANT INFORMATION:
LOCAL CONTACT:

EFD Contact: Mike Patterson (ECC)
(703) 743-1799

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

8. APPLICABLE STANDARDS.

29 CFR 1910.1001
29 CFR 1926.58
EPA 40 CFR 61 subpart M

9. ORIGINAL COST OF SAFETY AND HEALTH MEASURES: (IN THOUSANDS OF DOLLARS)

FY	CONSTRUCTION DESIGN	CONSTR	~~REPAIR~~ Estimate DESIGN	CONSTR
			—	3
	TOTAL		TOTAL	

Cost is For Removal

10. PROJECT SCHEDULE:	ACTIVITY (MMM/YY)	REGULATION (MMM/YY)
DESIGN (START) (DDMMMYY)		Jun 86 (OSHA)
CONSTR (START)		
OPERATION (START)		
FINAL COMPLIANCE		

11. MISCELLANEOUS DATA:

APPROPRIATION	REGIONAL MEDICAL CENTER
HEALTH CATEGORY 05 MN	HAZARD SUBCATEGORY
HAZARD CATEGORY	VARIOUS LOCATIONS

12. BUILDINGS AFFECTED

PROPERTY RECORD CARD NO(S)

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

13. HAZARD CONTROL ASSESSMENT

SAFETY	OR	HEALTH
(1) SPECIFIC HAZARD		(1) SPECIFIC HAZARD: Potential For Damage PD14
(2) HAZARD VIOLATION (Regulation)		(2) HAZARD VIOLATION (Regulation): Facility Rating/Ranking Score #5 of 18
(3) PROBABILITY (Check one): A. LIKELY B. PROBABLE C. POSSIBLE D. UNLIKELY		(3) CONCENTRATION OF HAZARD: UNITS; IS CONCENTRATION ABOVE CEILING: YES NO
(4) COST TO LIVE IN JURY		(4) CURRENT STANDARDS (Units must be same as item 3)
(5) DAYS LOST PER INCIDENT (Check one): A. 4200 B. 2500-4.99; C. 1200-2499 D. 400-1100; E. 100-399 F. 30-99; G. LESS THAN 30		(5) TIME BETWEEN EXPOSURE AND HARMFUL IMPACTS (Check one): A. IMMEDIATE B. IN MONTHS C. IN YEARS

(6) NORMAL WORKING POPULATION EXPOSED TO HAZARD (Employees) (Check one): A. 1-4 B. 5-9 C. 10-50 D. MORE THAN 50

(7) RATE OF EXPOSURE TO HAZARD (HOURS/YEAR PER PERSON EXPOSED) (Check one): A. LESS THAN 40 B. 40-150 C. 151-950 D. 960-2000 E. MORE THAN 2000

(8) INSTALLED COST OF CORRECTIVE ACTION ($X10³) (Check one): A. LESS THAN 40 B. 40-60 C. 61-80 D. 81-100 E. MORE THAN 100

(9) CHANGE IN ANNUAL O&M COST ($X10³) (Check one): A. LESS THAN (5) B. (5)-0 C. 1-5 D. 6-10 E. MORE THAN 10

(10) TIME TO ACCOMPLISH THE CONSTRUCTION OF CORRECTIVE ACTION (Months) (Check one): A. 1-3 B. 4-6 C. 7-9 D. 10-12 E. 13-24 F. MORE THAN 24

SAFETY	OR	HEALTH
(11) UPON COMPLETION WILL THE SAFETY PROJECT BE IN FULL LEGAL COMPLIANCE? (Check one): YES NO		(11) UPON COMPLETION, WHAT WILL THE ESTIMATED CONCENTRATION OF THE DESIGNATED HEALTH HAZARD BE? CONCENTRATION _____ THE UNITS MUST BE SAME AS ITEM 3

(12) CHANGE IN ENERGY CONSUMPTION CAUSED BY CORRECTIVE ACTION (10^6 BTU/Year): A. LESS THAN (500) B. (500)-0 C. 1-500 D. 501-1000 E. MORE THAN 1000

(13) EFFECTIVE LIFE OF CORRECTIVE ACTION (Years): A. MORE THAN 10 B. 5-10 C. 3-4 D. 1-2 E. LESS THAN 1

(14) POTENTIAL FOR RELOCATING THE PROCESS OF FUNCTION TO AVOID THE HAZARD (Check one): A. HIGH B. MEDIUM C. LOW

(15) EXPECTED LIFE OF HAZARDOUS OPERATION (Years) (Check one): A. MORE THAN 10 B. 6-10 C. 3-5 D. 1-2 E. LESS THAN 1

DAP/MIS PROJECT HAS BEEN REVIEWED AND APPROVED BY

	CODE	DATE
PUBLIC WORKS OFFICER (Signature)		
ACTIVITY HEALTH AND SAFETY OFFICER (Signature)		
INDUSTRIAL HYGIENIST (Health projects only) (Signature)		

NEESA-3900/12 (REV. 7-86)

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME: Asbestos Assessment/Building 643 | SERIAL NO | UIC: N62603

PROGRAM: Asbestos | FUNDING COMMAND | STATUS: PP (Preliminary Planning)

FISCAL YEAR: Nov 90 | DATE INPUT | DATE REVISED | PRIORITY

AGENCY: DEPARTMENT OF THE NAVY

ACTIVITY: 1 Fleet & Mine Warfare Training Center | ADDRESS: Charleston, South Carolina

NAVFAC CONTACT

NARRATIVE
(Limit of 65 positions per line including spaces and punctuation)

2. PROBLEM DESCRIPTION

Homogeneous area #3 contains non-friable mastic on air duct systems. This material can be maintained under an O&M Program.

3. SPECIFIC HAZARD AND LOCATION

Homogeneous Area	Condition	Facility Rating/Ranking	
#1	NA	NA	NA
#2	NA	NA	NA
#3	Potential For Damage	PD14	#1
#4	NA	NA	NA
#5	NA	NA	NA
#6	NA	NA	NA
#7	NA	NA	NA
#8	NA	NA	NA

NEESA 3900/12 (REV. 7-86)

CONTINUE ON REVERSE

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

4. INTERIM CONTROL MEASURES.

5. EFFECTIVENESS OF INTERIM CONTROL MEASURES:

6. PROPOSED CORRECTIVE ACTION AND EFFECTIVENESS

Homo. Area
#3 - Preventive Measure, O&M program

7. OTHER RELEVANT INFORMATION.
LOCAL CONTACT:

EFD Contact: Mike Patterson (ECC)
(503) 743-1799

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

8. APPLICABLE STANDARDS

29 CFR 1910.1001
29 CFR 1926.58
EPA 40 CFR 61 Subpart M

9. ORIGINAL COST OF SAFETY AND HEALTH MEASURES (IN THOUSANDS OF DOLLARS)

FY	CONSTRUCTION				REPAIR Estimate			
	DESIGN	END	CONSTR	END	DESIGN	END	CONSTR	END
							.5 Cost is For: O&M	
	TOTAL				TOTAL			

10. PROJECT SCHEDULE.	ACTIVITY (MMM/YY)	REGULATION (MMM/YY)
DESIGN (START) (DDMMMYY)		Jun 86 (OSHA)
CONSTR (START)		
OPERATION (START)		
FINAL COMPLIANCE		

11. MISCELLANEOUS DATA

APPROPRIATION	REGIONAL MEDICAL CENTER
HEALTH CATEGORY	HAZARD SUBCATEGORY
HAZARD CATEGORY	VARIOUS LOCATIONS

12. BUILDINGS AFFECTED:

PROPERTY RECORD CARD NO(S):

#210007

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

13. HAZARD CONTROL ASSESSMENT

SAFETY OR HEALTH

(1) SPECIFIC HAZARD

(2) HAZARD VIOLATION (Regulations)

(3) PROBABILITY (Check one)

☐ A. LIKELY ☐ B. PROBABLE ☐ C. POSSIBLE ☐ D. UNLIKELY

(4) SEVERITY INJURY

(5) DAYS LOST PER INCIDENT (Check one)

☐ A. 4200 ☐ B. 2500-4199
☐ C. 1700-2499 ☐ D. 400-1199
☐ E. 100-399 ☐ F. 30-99
☐ G. LESS THAN 30

(6) NORMAL WORKING POPULATION EXPOSED TO HAZARD (Employees) (Check one)

☐ A. 1-4 ☐ B. 5-9 ☐ C. 10-50 ☐ D. MORE THAN 50

(7) RATE OF EXPOSURE TO HAZARD (HOURS/YEAR PER PERSON EXPOSED) (Check one)

☐ A. LESS THAN 40 ☐ B. 40-150 ☐ C. 151-950 ☐ D. 950-2000 ☐ E. MORE THAN 2000

(8) INSTALLED COST OF CORRECTIVE ACTION ($X10³) (Check one)

☐ A. LESS THAN 40 ☐ B. 40-60 ☐ C. 61-80 ☐ D. 81-100 ☐ E. MORE THAN 100

(9) CHANGE IN ANNUAL O&M COST ($X10³) (Check one)

☐ A. LESS THAN (-5) ☐ B. (-5)-0 ☐ C. 1-5 ☐ D. 6-10 ☐ E. MORE THAN 10

(10) TIME TO ACCOMPLISH THE CONSTRUCTION OF CORRECTIVE ACTION (Months) (Check one)

☐ A. 1-3 ☐ B. 4-6 ☐ C. 7-9 ☐ D. 10-12 ☐ E. 13-24 ☐ F. MORE THAN 24

(1) SPECIFIC HAZARD

(2) HAZARD VIOLATION (Regulations)

(3) CONCENTRATION OF HAZARD

UNITS

(4) CONCENTRATION ABOVE CEILING

☐ YES ☐ NO

(5) CURRENT STANDARDS (Units must be same as item 3)

(6) TIME BETWEEN EXPOSURE AND HARMFUL IMPACTS (Check one)

☐ A. IMMEDIATE ☐ B. IN MONTHS ☐ C. IN YEARS

SAFETY OR HEALTH

(1) UPON COMPLETION, WILL THE SAFETY PROJECT BE IN FULL LEGAL COMPLIANCE? (Check one)

☐ YES ☐ NO

(1) UPON COMPLETION, WHAT WILL THE ESTIMATED CONCENTRATION OF THE DESIGNATED HEALTH HAZARD BE?

CONCENTRATION _____ THE UNITS MUST BE SAME AS ITEM 3.

(2) CHANGE IN ENERGY CONSUMPTION CAUSED BY CORRECTIVE ACTION ($10⁶ BTU/Year)

☐ A. LESS THAN (-500) ☐ B. (-500)-0 ☐ C. 1-500 ☐ D. 501-1000 ☐ E. MORE THAN 1000

(3) EFFECTIVE LIFE OF CORRECTIVE ACTION (Years)

☐ A. MORE THAN 10 ☐ B. 5-10 ☐ C. 3-4 ☐ D. 1-2 ☐ E. LESS THAN 1

(14) POTENTIAL FOR RELOCATING THE PROCESS OR FUNCTION TO AVOID THE HAZARD (Check one)

☐ A. HIGH ☐ B. MEDIUM ☐ C. LOW

(15) EXPECTED LIFE OF HAZARDOUS OPERATION (Years) (Check one)

☐ A. MORE THAN 10 ☐ B. 6-10 ☐ C. 3-5 ☐ D. 1-2 ☐ E. LESS THAN 1

DAP/MIS PROJECT HAS BEEN REVIEWED AND APPROVED BY

PUBLIC WORKS OFFICER (Signature) | CODE | DATE

ACTIVITY HEALTH AND SAFETY OFFICER (Signature) | CODE | DATE

INDUSTRIAL HYGIENIST (Health impacts only) (Signature) | CODE | DATE

NEESA 3900/12 (REV. 7-86) PAGE 4 OF 4

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME: Asbestos Assessment / Building 647 | SERIAL NO | UIC: N62603

PROGRAM: Asbestos | FUND NO COMMAND | STATUS: PP (Preliminary Planning)

DATE PREPARED: Nov 90 | DATE INPUT | DATE REVISED | REV NO

AGENCY: DEPARTMENT OF THE NAVY

ACTIVITY: Fleet & Mine Warfare Training Center | LOCATION: Charleston, South Carolina

NAVFAC CONTACT

NARRATIVE
(Limit of 65 positions per line including spaces and punctuation)

2. PROBLEM DESCRIPTION

The Boiler room, where Homogeneous areas #6, #7, #8, #9 and #10 are located contain damaged friable thermal system insulation. These materials can be repaired and maintained under an O&M program until such time as they can be removed. Homogeneous area #3, pipe elbows above the drop ceiling can be maintained under an O&M program along with homogeneous area #5, 9"x9" Elbow tile.

3. SPECIFIC HAZARD AND LOCATION.

Homogeneous Area	Condition	Facility Rating	Ranking
#1	NA	NA	NA
#2	NA	NA	NA
#3	Potential For Damage	PD28	#4
#4	NA	NA	NA
#5	Potential For Damage	PD14	#7
#6	Damage	D31	#1
#7	Potential For Damage	PD16	#6
#8	Damage	D28	#2
#9	Potential For Damage	PD14	#5
#10	Damage	D26	#3

NEESA-3900/12 (REV. 7-86) CONTINUED ON REVERSE PAGE 1 OF 4

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

4. INTERIM CONTROL MEASURES

5. EFFECTIVENESS OF INTERIM CONTROL MEASURES

6. PROPOSED CORRECTIVE ACTION AND EFFECTIVENESS:

Homo. Area
#6, #8, #9 - Repair, O&M program - Removal
#3, #5, #7, #9 - O&M program, preventive measures

7. OTHER RELEVANT INFORMATION:
LOCAL CONTACT:

EFD contact - Mike Patterson (ECC)
(503) 743-1799

NAVOSH DEFICIENCY ABATEMENT PROGRAM
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME | SERIAL NO | UIC

8. APPLICABLE STANDARDS

29CFR 1910.1001
29CFR 1926.58
EPA 40 CFR 61 subpart M

9. ORIGINAL COST OF SAFETY AND HEALTH MEASURES: (IN THOUSANDS OF DOLLARS)

FY	CONSTRUCTION DESIGN	CONSTRUCTION END	CONSTRUCTION CONSTR	CONSTRUCTION END	~~REPAIR~~ Estimate DESIGN	END	CONSTR	END
					2		7.5	
	TOTAL				TOTAL			

Cost is for: O&M
Repair
Removal

10. PROJECT SCHEDULE	ACTIVITY (MMM/YY)	REGULATION (MMM/YY)
DESIGN (START) (DDMMMYY)		June 86
CONSTR (START)		(OSHA)
OPERATION (START)		
FINAL COMPLIANCE		

11. MISCELLANEOUS DATA

APPROPRIATION	REGIONAL MEDICAL CENTER
HEALTH CATEGORY: O&MN	HAZARD SUBCATEGORY
HAZARD CATEGORY	VARIOUS LOCATIONS

12. BUILDINGS AFFECTED:

PROPERTY RECORD CARD NO(S)

#210001

BULK SAMPLE
CHAIN OF CUSTODY RECORDS

Westinghouse Environmental and Geotechnical Services, Inc.

BULK SAMPLE

CHAIN OF CUSTODY RECORD

PROJ. #	PROJ. NAME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
123889-023	FMWTC Ammend #9	Kim Spivey	10/23	Am	ST
FACILITY		RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Bldg 202					
SAMPLER(S)	**DATE TAKEN**	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
L. Spivey	10/15/90				

SAMPLE #	HOMOGENEOUS AREA	MATERIAL TYPE	LAB NUMBER	DATE ANALYZED	ANALYSTS INITIALS	ASBESTOS +	ASBESTOS N/D	ARCHIVE NUMBER	DATE ARCH	ARCHIVER INITIALS	SPECIAL INSTRUCTIONS
202-01		I	11705	11-2-90	ST	/					Trowel Plaster
202-02		I	11706	11-3-90		/					"
202-03		I	11707	11-6-90		<1%					"
202-04		I	11708	11-4-90		/					"
202-05		J	11709	11-4-90		<1%					12" Green
202-05A		P	11710	11-4-90			/				F.T. Mastic
202-06		P	11711	11-2-90		/					Duct Mastic
202-07		J	11712	11-6-90			/				12" White
202-07A		P	11713	11-6-90			/				F.T. Mastic
202-08		J	11714	11-2-90		<1%					12" Tan
202-08A		P	11715	11-2-90			/				F.T. Mastic
202-09		I	11716	11-6-90		/					Trowel Plaster
202-10		J	11717	11-4-90		<1%					12" Brown
202-10A		P	11718	11-4-90			/				F.T. Mastic
202-11		J	11719	11-3-90		/					9" Black
202-11A		P	11720	11-3-90	↓		/				F.T. Mastic

MATERIAL TYPES

A - < 4" Pipe Fitting
B - 4-8" Pipe Fitting
C - 9-14" Pipe Fitting
D - > 14" Pipe Fitting
E - < 4" Pipe
F - 4-8" Pipe
G - 9-14" Pipe
H - > 14" Pipe
I - Spray-On/Trowel
J - Floor Tile
K - Tanks/Boiler
L - A.H.U. Insul.
M - A.H.U. Exp. Jt.
N - Ceiling/Wall Tile
O - Fiberboard
P - Other (See notes - Front or back)

ALL SAMPLES WILL BE DISPOSED OF NINETY DAYS AFTER ANALYSIS UNLESS OTHERWISE REQUESTED

Westinghouse Environmental and Technical Services, Inc.

BULK SAMPLE
CHAIN OF CUSTODY RECORD

PROJ. #	PROJ. NAME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
1238-89-023	FMWTC Amend #9	Tim Spivey	10/23	AM	ST
FACILITY		RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Bldg 202					
SAMPLER(S)	**DATE TAKEN**	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
T. Spivey	10/15/90				

SAMPLE #	HOMOGENEOUS AREA	MATERIAL TYPE	LAB NUMBER	DATE ANALYZED	ANALYSTS INITIALS	ASBESTOS +	ASBESTOS N/D	ARCHIVE NUMBER	DATE ARCH	ARCHIVER INITIALS	SPECIAL INSTRUCTIONS
202-12		J	11721	11-3-90	ST		/				12" Blue
202-12A		P	11722	11-3-90			/				F.T. Mastic
202-13		J	11723	11-4-90		<1%					12" Orange
4169		P	11724	11-4-90			/				Boiler Breeching
4163		P	11725	11-4-90			/				"
4175		P	11726	11-4-90			/				"
4164		P	11727	11-4-90			/				Boiler Gasket
4157		B	11728	11-5-90			/				6" Elbow
4192		B	11729	11-4-90		/					6" Elbow
4187		B	11730	11-3-90		/					8" Elbow
4198		A	11731	11-3-90			/				3" Elbow
4153		B	11732	11-6-90		/					6" Elbow
4195		B	11733	11-3-90		/					4" Elbow
4174		C	11734	11-4-90	↓	/					10" Fitting

MATERIAL TYPES

A - < 4" Pipe Fitting
B - 4-8" Pipe Fitting
C - 9-14" Pipe Fitting
D - > 14" Pipe Fitting
E - < 4" Pipe
F - 4-8" Pipe
G - 9-14" Pipe
H - > 14" Pipe

I - Spray-On/Trowel
J - Floor Tile
K - Tanks/Boiler
L - A.H.U. Insul.
M - A.H.U. Exp. Jt.
N - Ceiling/Wall Tile
O - Fiberboard

P - Other
(See notes - Front or back)

ALL SAMPLES WILL BE DISPOSED OF NINETY DAYS AFTER ANALYSIS UNLESS OTHERWISE REQUESTED

147

WESTINGHOUSE ENVIRONMENTAL & GEOTECHNICAL SERVICES, INC.
840 Low Country Boulevard
Mt. Pleasant, South Carolina 29464
(803) 884-0005 FAX: (803) 881-6149
ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWIC Ammerd. #9 Date: 11-2-90
Job Name: Building 202 Lab ID#: 11705
Job No.: 1238-89-023 Client Sample ID#: 202-01

Gross Sample Description: Plaster Ceiling

Fiber: Straight/Stiff 3 Bundular 2 Regular
Morphology: Shredded/Irregular Heliptical 1 Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n ⊥
1 Cellulose	1.550		✓	Mod			✓		✓		yellow	blue
2 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
3 Brucite	1.550		✓	low	✓	✓				✓	—	—
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile	2	Fibrous Glass		Paint	<1
Amosite		Cellulose	15	Perlite	25
Crocidolite		Synthetic		Binders	33
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other Brucite	25	Bitumen	
Actinolite		Other		Other	
Total % Asbestos	2%	Total % of Other Fibrous Material	40%	Total % of Non-Fibrous Material	58%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gillert

Note: The results pertain only to the sample identification above. The sample may not be fully representative of the larger material in question. Member of NVLAP (National Voluntary Laboratory Accreditation Program). This sheet may not be reproduced except with permission from Westinghouse Environmental & Geotechnical Services, Inc.

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWIC Amend. #9 Date: 11-3-90

Job Name: Building 202 Lab ID#: 11706

Job No.: 1238-89-023 Client Sample ID#: 202-02

Gross Sample Description: Plaster Ceiling

Fiber: Straight/Stiff 3 Bundular 1 Regular
Morphology: Shredded/Irregular Heliptical 2 Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation --	Dispersion Staining n =	Dispersion Staining n ⊥
1 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
2 Cellulose	1.550		✓	Mod			✓		✓		yellow	blue
3 Brucite	1.550		✓	low	✓	✓				✓	—	—
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile	2	Fibrous Glass		Paint	
Amosite		Cellulose	15	Perlite	35
Crocidolite		Synthetic		Binders	23
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other Brucite	25	Bitumen	
Actinolite		Other		Other	
Total % Asbestos	2%	Total % of Other Fibrous Material	40%	Total % of Non-Fibrous Material	58%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Hilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWIC Amend. #9 Date: 11-6-90

Job Name: Building 202 Lab ID#: 117017

Job No.: 1238-89-023 Client Sample ID#: 202-03

Gross Sample Description: Plaster Ceiling

Fiber: Straight/Stiff 3 Bundular 1 Regular ____
Morphology: Shredded/Irregular ____ Heliptical 2 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n ⊥
1 Chrysotile	1.550		✓	low	✓				✓		magenta	blue
2 Cellulose	1.550		✓	Med.			✓		✓		yellow	blue
3 Brucite	1.550		✓	low	✓	✓				✓	—	—
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile	<1	Fibrous Glass		Paint	
Amosite		Cellulose	10	Perlite	15
Crocidolite		Synthetic		Binders	10
Tremolite		Cotton		(Plaster)/Masonry	50
Anthophyllite		Other Brucite	15	Bitumen	
Actinolite		Other		Other	
Total % Asbestos	<1%	Total % of Other Fibrous Material	25%	Total % of Non-Fibrous Material	75%

Comments: ____

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWIC Amend. #9 Date: 11-4-90

Job Name: Building 202 Lab ID#: 11708

Job No.: 1238-89-023 Client Sample ID#: 202-04

Gross Sample Description: Plaster

Fiber: Straight/Stiff 2 Bundular 3 Regular ____

Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation --	Dispersion Staining n =	Dispersion Staining n ⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2 Brucite	1.550		✓	low	✓	✓				✓		
3 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile	2	Fibrous Glass		Paint	1
Amosite		Cellulose	15	Perlite	32
Crocidolite		Synthetic		Binders	25
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other Brucite	25	Bitumen	
Actinolite		Other		Other	
Total % Asbestos	2%	Total % of Other Fibrous Material	40%	Total % of Non-Fibrous Material	58%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Amend. #9 Date: 11-4-90
Job Name: Building 202 Lab ID#: 11709 & 11710
Job No.: 1238-89-023 Client Sample ID#: 202-05 & 202-05A

Gross Sample Description: 12" Green Floor Tile / Mastic

Fiber: Straight/Stiff 2 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation --	Dispersion Staining n =	Dispersion Staining n ⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2	1.550											
3 Tremolite	1.605		✓	high		✓			✓		yellow	blue
4												

Asbestos:	% 1	% 2	Other Fibrous Materials:	% 1	% 2	Non-Fibrous Materials:	% 1	% 2
Chrysotile			Fibrous Glass			Paint		
Amosite			Cellulose	6	5	Perlite		
Crocidolite			Synthetic			Binders	14	85
Tremolite	<1		Cotton			Plaster/Masonry		
Anthophyllite			Other			Bitumen		
Actinolite			Other			Other Aggregate	80	10
Total % Asbestos	<1%	NA	Total % of Other Fibrous Material	6%	5%	Total % of Non-Fibrous Material	94%	95%

Comments: 1 = Tile 2 = Mastic NA : None Detected

* There appears to be a small portion of Black Floor Tile adhered to bottom of Green tile

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWIC Amend. #9 Date: 11-2-90

Job Name: Building 202 Lab ID#: 11711

Job No.: 1238-89-023 Client Sample ID#: 202-06

Gross Sample Description: Duct Insulation

Fiber: Straight/Stiff 2, 3 Bundular 1 Regular ____

Morphology: Shredded/Irregular ____ Heliptical ____ Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation --	Dispersion Staining n =	Dispersion Staining n ⊥
1 Chrysotile	1.550		✓	low	✓				✓		magenta	blue
2 Fiberglass	1.550		✓	—				✓	—	—	—	—
3 Tremolite	1.605		✓	high		✓			✓		yellow	blue
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile	11	Fibrous Glass	20	Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	
Tremolite	4	Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	63
Actinolite		Other		Other QUARTZ	2
Total % Asbestos	15%	Total % of Other Fibrous Material	20%	Total % of Non-Fibrous Material	65%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWIC Amend. #9 Date: 11-2-90

Job Name: Building 202 Lab ID#: 11712 & 11713

Job No.: 1238-89-023 Client Sample ID#: 202-07 & 202-07A

Gross Sample Description: 12" White Floor Tile / Mastic

Fiber: Straight/Stiff _____ Bundular 2 Regular _____
Morphology: Shredded/Irregular _____ Heliptical 1 Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation --	Dispersion Staining n =	Dispersion Staining n ⊥
1 Cellulose	1.550		✓	Mod			✓		✓		yellow	blue
2 Synthetic	1.550		✓	Mod	✓				✓		—	—
3												
4												

Asbestos:	1	% 2	Other Fibrous Materials:	1	% 2	Non-Fibrous Materials:	1	% 2
Chrysotile			Fibrous Glass			Paint		
Amosite			Cellulose		5	Perlite		
Crocidolite			Synthetic		4	Binders	20	
Tremolite			Cotton			Plaster/Masonry		
Anthophyllite			Other			Bitumen		91
Actinolite			Other			Other Aggregate	80	
Total % Asbestos	ND	ND	Total % of Other Fibrous Material	0%	9%	Total % of Non-Fibrous Material	100%	91%

Comments: 1=Tile 2=Mastic ND, none detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

Note: The results pertain only to the sample identification above. The sample may not be fully representative of the larger material in question. Member of NVLAP (National Voluntary Laboratory Accreditation Program). This sheet may not be reproduced except with permission from Westinghouse Environmental & Geotechnical Services, Inc.

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 11-2-90

Job Name: Building 202 Lab ID#: 11714 & 11715

Job No.: 1238-89-023 Client Sample ID#: 202-08 & 202-08A

Gross Sample Description: 12" TAN Floor Tile / MASTIC

Fiber: Straight/Stiff _____ Bundular 1 Regular _____
Morphology: Shredded/Irregular _____ Heliptical 2 Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n ⊥
1 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
2 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
3												
4												

Asbestos:	1	% 2	Other Fibrous Materials:	1	% 2	Non-Fibrous Materials:	1	% 2
Chrysotile	<1		Fibrous Glass			Paint		
Amosite			Cellulose		15	Perlite		
Crocidolite			Synthetic			Binders	20	65
Tremolite			Cotton			Plaster/Masonry		
Anthophyllite			Other			Bitumen		
Actinolite			Other			Other Aggregate	80	20
Total % Asbestos	<1%	NO	Total % of Other Fibrous Material	0%	15%	Total % of Non-Fibrous Material	100%	85%

Comments: 1 = Tile 2 = Mastic NO ; NONE Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Dillard

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWIC Ammend. #9 Date: 11-6-90
Job Name: Building 202 Lab ID#: 11716
Job No.: 1238-89-023 Client Sample ID#: 202-01

Gross Sample Description: Plaster

Fiber: Straight/Stiff 3 Bundular 1 Regular
Morphology: Shredded/Irregular Heliptical 2 Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation --	Dispersion Staining n =	Dispersion Staining n i
1 Chrysotile	1.550		✓	low	✓				✓		magenta	blue
2 Cellulose	1.550		✓	Mod			✓		✓		yellow	blue
3 Brucite	1.550		✓	low	✓	✓				✓	—	—
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile	3	Fibrous Glass		Paint	
Amosite		Cellulose	10	Perlite	35
Crocidolite		Synthetic		Binders	27
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other Brucite	25	Bitumen	
Actinolite		Other		Other	
Total % Asbestos	3%	Total % of Other Fibrous Material	35%	Total % of Non-Fibrous Material	62%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Hilliet

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWIC Amend. #9 Date: 11-4-90
Job Name: Building 202 Lab ID#: 11717 & 11718
Job No.: 1238-89-023 Client Sample ID#: 202-10 & 202-10A

Gross Sample Description: 12" Brown Floor Tile / Mastic

Fiber: Straight/Stiff ____ Bundular 1 Regular 3
Morphology: Shredded/Irregular ____ Heliptical 2 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n ±
1 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
2 Cellulose	1.550		✓	Mod			✓		✓		yellow	blue
3 Synthetic	1.550	✓		high	✓				—		—	—
4												

Asbestos:	1	2	Other Fibrous Materials:	1	2	Non-Fibrous Materials:	1	2
Chrysotile	<1		Fibrous Glass			Paint		
Amosite			Cellulose		5	Perlite		
Crocidolite			Synthetic		4	Binders	20	90
Tremolite			Cotton			Plaster/Masonry		
Anthophyllite			Other			Bitumen		
Actinolite			Other			Other Aggregate	80	1
Total % Asbestos	<1%	ND	Total % of Other Fibrous Material	0%	9%	Total % of Non-Fibrous Material	100%	91%

Comments: 1=Tile 2=Mastic ND; None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWIC Ammend. #9 Date: 11-3-90

Job Name: Building 202 Lab ID#: 11719 & 11720

Job No.: 1238-89-023 Client Sample ID#: 202-11 & 202-11A

Gross Sample Description: 9" Black Floor Tile / Mastic

Fiber: Straight/Stiff _____ Bundular 1 Regular _____
Morphology: Shredded/Irregular _____ Heliptical 2 Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n ⊥
1 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
2 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
3												
4												

Asbestos:	1	% 2	Other Fibrous Materials:	1	% 2	Non-Fibrous Materials:	1	% 2
Chrysotile	8		Fibrous Glass			Paint		
Amosite			Cellulose		2	Perlite		
Crocidolite			Synthetic			Binders	12	2
Tremolite			Cotton			Plaster/Masonry		
Anthophyllite			Other			Bitumen		86
Actinolite			Other			Other Aggregate	80	10
Total % Asbestos	8%	ND	Total % of Other Fibrous Material	0%	2%	Total % of Non-Fibrous Material	92%	98%

Comments: 1= Tile 2= Mastic ND; None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 11-3-90
Job Name: Building 202 Lab ID#: 11721 & 11722
Job No.: 1238-89-023 Client Sample ID#: 202-12 & 202-12A

Gross Sample Description: 12" Blue Floor Tile / Mastic

Fiber: Straight/Stiff _____ Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical 1 Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation --	Dispersion Staining n =	Dispersion Staining n ⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2	1.550											
3												
4												

Asbestos:	1 %	2	Other Fibrous Materials:	1 %	2	Non-Fibrous Materials:	1 %	2
Chrysotile			Fibrous Glass			Paint		
Amosite			Cellulose		1	Perlite		
Crocidolite			Synthetic			Binders	20	95
Tremolite			Cotton			Plaster/Masonry		
Anthophyllite			Other			Bitumen		
Actinolite			Other			Other Aggregate	80	4
Total % Asbestos	ND	ND	Total % of Other Fibrous Material	0%	1%	Total % of Non-Fibrous Material	100%	99%

Comments: 1= Tile 2= mastic ND; None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 11-4-90

Job Name: Building 202 Lab ID#: 11723

Job No.: 1238-89-023 Client Sample ID#: 202-13

Gross Sample Description: 12" ORANGE Floor Tile

Fiber: Straight/Stiff _____ Bundular 1 Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n ⊥
1 Chrysotile	1.550		✓	low	✓				✓		magenta	blue
2	1.550											
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile	<1	Fibrous Glass		Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	20
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Aggregate	80
Total % Asbestos	<1%	Total % of Other Fibrous Material	0%	Total % of Non-Fibrous Material	100%

Comments: No Mastic with Tile

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Amend. #9 Date: 11-4-90
Job Name: Building 202 Lab ID#: 11724
Job No.: 1238-89-023 Client Sample ID#: 4169

Gross Sample Description: Breeching

Fiber: Straight/Stiff 2 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n ⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2 Mineral Wool	1.550		✓	—				✓	—	—	—	—
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (MW)	25	Paint	
Amosite		Cellulose	10	Perlite	
Crocidolite		Synthetic		Binders	64
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	1
Total % Asbestos	ND	Total % of Other Fibrous Material	35%	Total % of Non-Fibrous Material	65%

Comments: ND; None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Dilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWIC Amend. #9 Date: 11-4-90

Job Name: Building 202 Lab ID#: 11725

Job No.: 1238-89-023 Client Sample ID#: 4163

Gross Sample Description: Breeching

Fiber: Straight/Stiff 2 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n ⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2 Mineral Wool	1.550		✓	—				✓	—	—	—	—
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (MW)	30	Paint	
Amosite		Cellulose	15	Perlite	
Crocidolite		Synthetic		Binders	53
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Quartz	2
Total % Asbestos	NO	Total % of Other Fibrous Material	45%	Total % of Non-Fibrous Material	55%

Comments: NO ASBESTOS Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Hilliard

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Amend. #9 Date: 11-4-90
Job Name: Building 202 Lab ID#: 11726
Job No.: 1238-89-023 Client Sample ID#: 4175

Gross Sample Description: Breeching

Fiber: Straight/Stiff _____ Bundular _____ Regular 2
Morphology: Shredded/Irregular _____ Heliptical 1 Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation --	Dispersion Staining n =	Dispersion Staining n ⊥
1 Cellulose	1.550		✓	Mod			✓				Yellow	blue
2 Synthetic	1.550		✓	high					—		Magenta	green
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass		Paint	
Amosite		Cellulose	10	Perlite	
Crocidolite		Synthetic	5	Binders	65
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	20
Total % Asbestos	ND	Total % of Other Fibrous Material	15%	Total % of Non-Fibrous Material	85%

Comments: ND; None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Willett

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWIC Amend. #9 Date: 11-4-90
Job Name: Building 202 Lab ID#: 11727
Job No.: 1238-89-023 Client Sample ID#: 4164

Gross Sample Description: Boiler GASKET

Fiber: Straight/Stiff 1 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical ____ Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n ⊥
1 Fiberglass	1.550		✓	—				✓	—	—	—	—
2	1.550											
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass	98	Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	2
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	ND	Total % of Other Fibrous Material	98%	Total % of Non-Fibrous Material	2%

Comments: ND None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Hilliard

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWIC Ammend. #9 Date: 11-5-90
Job Name: Building 202 Lab ID#: 11728
Job No.: 1238-89-023 Client Sample ID#: 4757

Gross Sample Description: Elbow Insulation

Fiber: Straight/Stiff 2 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n ⊥
1 Cellulose	1.550		✓	Mal			✓		✓		yellow	blue
2 Mineral Wool	1.550		✓	—				✓	—		—	—
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (MW)	35	Paint	
Amosite		Cellulose	4	Perlite	
Crocidolite		Synthetic		Binders	60
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	1
Total % Asbestos	ND	Total % of Other Fibrous Material	39%	Total % of Non-Fibrous Material	61%

Comments: ND None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWIC Ammend. #9 Date: 11-4-90

Job Name: Building 202 Lab ID#: 11729

Job No.: 1238-89-023 Client Sample ID#: 4192

Gross Sample Description: Elbow Insulation

Fiber: Straight/Stiff 3 Bundular 1 Regular

Morphology: Shredded/Irregular Heliptical 2 Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n ⊥
1 Chrysotile	1.550		✓	low	✓				✓		magenta	blue
2 Cellulose	1.550		✓	Mod			✓		✓		yellow	blue
3 Microtubul			✓	—				✓	—	—	—	—
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile	50	Fibrous Glass (MW)	25	Paint	
Amosite		Cellulose	5	Perlite	
Crocidolite		Synthetic		Binders	20
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	50%	Total % of Other Fibrous Material	30%	Total % of Non-Fibrous Material	20%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Dilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 11-3-90

Job Name: Building 202 Lab ID#: 11730

Job No.: 1238-89-023 Client Sample ID#: 4187

Gross Sample Description: 8" Elbow Insulation

Fiber: Straight/Stiff 1, 2 Bundular ____ Regular ____

Morphology: Shredded/Irregular ____ Heliptical ____ Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation --	Dispersion Staining n =	Dispersion Staining n ±
1 Mineral Wool	1.550		✓	—				✓	—	—	—	—
2 Amosite	~~1.550~~ 1.680		✓	Mod		✓			✓		yellow	blue
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (MW)	35	Paint	
Amosite	2	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	61
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	2
Total % Asbestos	2%	Total % of Other Fibrous Material	35%	Total % of Non-Fibrous Material	63%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 11-3-90

Job Name: Building 202 Lab ID#: 11731

Job No.: 1238-89-023 Client Sample ID#: 4198

Gross Sample Description: 3" Elbow Insulation

Fiber: Straight/Stiff / Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical ____ Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation --	Dispersion Staining n =	Dispersion Staining n ⊥
1 Mineral Wool	1.550		✓	—				✓	—	—	—	—
2	1.550											
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (MW)	40	Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	58
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Quartz	2
Total % Asbestos	ND	Total % of Other Fibrous Material	40%	Total % of Non-Fibrous Material	60%

Comments: ND ; NONE Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Amend. #9 Date: 11-6-90

Job Name: Building 202 Lab ID#: 11732

Job No.: 1238-89-023 Client Sample ID#: 4153

Gross Sample Description: 6" Elbow Insulation

Fiber: Straight/Stiff 1 Bundular 2 Regular

Morphology: Shredded/Irregular Heliptical Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation --	Dispersion Staining n =	Dispersion Staining n ⊥
1 Mineral Wool	1.550		✓	—				✓	—	—	—	—
2 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile	25	Fibrous Glass (MW)	30	Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	44
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Quartz	1
Total % Asbestos	25%	Total % of Other Fibrous Material	30%	Total % of Non-Fibrous Material	45%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWIC Ammend. #9 Date: 11-3-90
Job Name: Building 202 Lab ID#: 11733
Job No.: 1238-89-023 Client Sample ID#: 4/95

Gross Sample Description: Pipe Elbow Insulation

Fiber: Straight/Stiff 1 Bundular 2 Regular
Morphology: Shredded/Irregular Heliptical Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n ⊥
1 Mineral Wool	1.550		✓	—				✓	—		—	—
2 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile	11	Fibrous Glass (MW)	50	Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	30
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	9
Total % Asbestos	11%	Total % of Other Fibrous Material	50	Total % of Non-Fibrous Material	39%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWIC Ammend. #9 Date: 11-4-90
Job Name: Building 202 Lab ID#: 11734
Job No.: 1238-89-023 Client Sample ID#: 4174

Gross Sample Description: Joint / Valve Mud

Fiber: Straight/Stiff 2,3 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n ±
1 Cellulose	1.550		✓	Mod			✓		✓		yellow	blue
2 Mineral Wool	1.550		✓	—					—		—	
3 Amosite	1.680		✓	Mod		✓			✓		yellow	blue
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (MW)	20	Paint	<1
Amosite	3	Cellulose	4	Perlite	
Crocidolite		Synthetic		Binders	55
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	15
Actinolite		Other		Other Aggregate	3
Total % Asbestos	3%	Total % of Other Fibrous Material	24%	Total % of Non-Fibrous Material	73%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Hilbert

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BUL SAMPLE

CHAIN OF CUSTODY RECORD

PROJ. #	PROJ. NAME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
1238-89-023	Ammend #9 FMWTC	J. Spivey	11/7	PM	Keene Flide
FACILITY		RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Bldg 202					
SAMPLER(S)	**DATE TAKEN**	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Spivey	11/7/90				

SAMPLE #	HOMOGENEOUS AREA	MATERIAL TYPE	LAB NUMBER	DATE ANALYZED	ANALYSTS INITIALS	ASBESTOS +	ASBESTOS N/D	ARCHIVE NUMBER	DATE ARCH	ARCHIVER INITIALS	SPECIAL INSTRUCTIONS
3262		B	11801	11-9-90	KF	✓			89-023-11801/803		
4173		B	11802	11-9-90	KF	✓			11-9-90		
4190		F	11803	11-9-90	KF		✓		Keene	Flide	

MATERIAL TYPES

A - < 4" Pipe Fitting
B - 4-8" Pipe Fitting
C - 9-14" Pipe Fitting
D - > 14" Pipe Fitting
E - < 4" Pipe
F - 4-8" Pipe
G - 9-14" Pipe
H - > 14" Pipe

I - Spray-On/Trowel
J - Floor Tile
K - Tanks/Boiler
L - A.H.U. Insul.
M - A.H.U. Exp. Jt
N - Ceiling/Wall Tile
O - Fiberboard

P - Other (See notes - Front or back)

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammendment#9 Date: 11-9-90

Job Name: Bldg.#202 Lab ID#: 11801

Job No.: 1238-89-023 Client Sample ID#: 3262

Gross Sample Description: Fiberd Insulation

Fiber: Straight/Stiff 3 Bundular 2 Regular

Morphology: Shredded/Irregular 1 Heliptical Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n⊥
1 Cellulose	1.550		✓	mod			✓		✓		yellow	blue
2 Chrysotile	1.550		✓	low	✓				✓		magenta	blue
3 M.Wool	1.550		✓	–				✓	–		–	–
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile	3%	Fibrous Glass		Paint	
mosite		Cellulose	2%	Perlite	
Crocidolite		Synthetic		Binders	80%
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other M.Wool	15%	Bitumen	
Actinolite		Other		Other	
Total % Asbestos	3%	Total % of Other Fibrous Material	17%	Total % of Non-Fibrous Material	80%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Kane Fink

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammendment#9 Date: 11-9-90

ob Name: Bldg.#202 Lab ID#: 11802

Job No.: 1238-89-023 Client Sample ID#: 4173

Gross Sample Description: Insulation Elbow

Fiber: Straight/Stiff 3 Bundular 2 Regular

Morphology: Shredded/Irregular 1 Heliptical Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n⊥
1 Cellulose	1.550		✓	mod			✓		✓		yellow	blue
2 Chrysotile	1.550		✓	low	✓				✓		magenta	blue
3 M. Wool	1.550		✓	–				✓			–	–
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile	18%	Fibrous Glass		Paint	
Amosite		Cellulose	2%	Perlite	
Crocidolite		Synthetic		Binders	65%
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other M Wool	15%	Bitumen	
Actinolite		Other		Other	
Total % Asbestos	18%	Total % of Other Fibrous Material	17%	Total % of Non-Fibrous Material	65%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Kane Pole

Laboratory QA/QC Director:

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammendment#9 Date: 11-9-90

Job Name: Bldg.#202 Lab ID#: 11803

Job No.: 1238-89-023 Client Sample ID#: 4190

Gross Sample Description: Pipe Insulation

Fiber: Straight/Stiff 2 Bundular _____ Regular _____

Morphology: Shredded/Irregular 1 Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n±
1 Cellulose	1.550		✓	mod			✓		✓		yellow	blue
2 Fiberglass	1.550	+						/				+
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass	92%	Paint	8%
Amosite		Cellulose	<1%	Perlite	
Crocidolite		Synthetic		Binders	
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	N/D	Total % of Other Fibrous Material	92%	Total % of Non-Fibrous Material	8%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Keene Peck

Laboratory QA/QC Director: _____

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BULK SAMPLE

CHAIN OF CUSTODY RECORD

PROJ. #	PROJ. NAME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
89-023	FMWTC Amend #9	Tom Spivey	10/23	4	ST
FACILITY		RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Bldg 204					
SAMPLER(S)	**DATE TAKEN**	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
T. Spivey	10/15/90				

SAMPLE #	HOMOGENEOUS AREA	MATERIAL TYPE	LAB NUMBER	DATE ANALYZED	ANALYSTS INITIALS	ASBESTOS +	ASBESTOS N/D	ARCHIVE NUMBER	DATE ARCH	ARCHIVER INITIALS	SPECIAL INSTRUCTIONS
204-01		P	11738	11-7-90	ST		/	11738			Tank Master
								11-7-90			
								ST			

MATERIAL TYPES

A - < 4" Pipe Fitting
B - 4-8" Pipe Fitting
C - 9-14" Pipe Fitting
D - > 14" Pipe Fitting
E - < 4" Pipe
F - 4-8" Pipe
G - 9-14" Pipe
H - > 14" Pipe
I - Spray-On/Trowel
J - Floor Tile
K - Tanks/Boiler
L - A.H.U. Insul.
M - A.H.U. Exp. Jt.
N - Ceiling/Wall Tile
O - Fiberboard
P - Other (See notes - Front or back)

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 11-7-90

Job Name: Bldg. 204 Lab ID#: 11738

Job No.: 1238-89-023 #9 Client Sample ID#: 204-01

Gross Sample Description: TANK MASTIC

Fiber: Straight/Stiff _____ Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical 1 Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2	1.550											
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass		Paint	
Amosite		Cellulose	1	Perlite	
Crocidolite		Synthetic		Binders	
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	99
Actinolite		Other		Other	
Total % Asbestos	ND	Total % of Other Fibrous Material	1%	Total % of Non-Fibrous Material	99%

Comments: ND = None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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BULK SAMPLE

CHAIN OF CUSTODY RECORD

PROJ. #	PROJ. NAME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
89-023	FMWTC Ammend #9	Jim Spivey	10/23	AM	SI
FACILITY		RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Bldg. 643					
SAMPLER(S)	**DATE TAKEN**	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
J. Spivey	10/19/90				

SAMPLE #	HOMOGENEOUS AREA	MATERIAL TYPE	LAB NUMBER	DATE ANALYZED	ANALYSTS INITIALS	ASBESTOS +	ASBESTOS N/D	ARCHIVE NUMBER	DATE ARCH	ARCHIVER INITIALS	SPECIAL INSTRUCTIONS
643-01		N	11574	10-23-90	ST		/				2x4 C.T.
643-02		J	11575				/	Floor	Tile &	Mastic	12" Tan
643-02A		P	11576				/	Results	are on	same sheet	F.T. Mastic
643-03		P	11577			/				#11575	Duct Mastic
643-04		N	11578				/				2x2 C.T.
643-05		I	11579				/				Spray F.P.
643-06		I	11580				/				"
643-07		I	11581				/				"
4129		C	11582				/				10" Elbow
4197		C	11583				/				10" Elbow
4161		C	11584				/				10" Elbow
4159		C	11585				/				10" Fitting
4155		C	11586				/				10" Valve
4178		C	11587				/				10" Fitting
4168		P	11588				/				Boiler Door Gasket

MATERIAL TYPES

A - < 4" Pipe Fitting
B - 4-8" Pipe Fitting
C - 9-14" Pipe Fitting
D - > 14" Pipe Fitting
E - < 4" Pipe
F - 4-8" Pipe
G - 9-14" Pipe

I - Spray-On/Trowel
J - Floor Tile
K - Tanks/Boiler
L - A.H.U. Insul.
M - A.H.U. Exp. Jt.
N - Ceiling/Wall Tile
O - Fiberboard

P - Other (See notes - Front or back)

ALL SAMPLES WILL BE DISPOSED OF NINETY DAYS AFTER ANALYSIS UNLESS OTHERWISE REQUESTED

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-23-90

Job Name: Building 643 Lab ID#: 11574

Job No.: 1238-89-023 #9 Client Sample ID#: 643-01

Gross Sample Description: 2x4 Ceiling Tile

Fiber: Straight/Stiff 2 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Cellulose	1.550		✓	Mod			✓		✓		yellow	blue
2 Mineral Wool	1.550											
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (MW)	25	Paint	
Amosite		Cellulose	40	Perlite	25
Crocidolite		Synthetic		Binders	10
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	ND	Total % of Other Fibrous Material	65%	Total % of Non-Fibrous Material	35%

Comments: ND Asbestos Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-23-90

Job Name: Building 643 Lab ID#: 11575

Job No.: 1238-89-023 #9 Client Sample ID#: 643-02

Gross Sample Description: 12" Tan Floor Tile / Mastic

Fiber: Straight/Stiff _____ Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical 1 Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation -	Dispersion Staining ∥	Dispersion Staining ⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2	1.550											
3												
4												

Asbestos:	T	%	M	Other Materials:	T	%	M	Non-Fibrous Materials:	T	%	M
Chrysotile				Fibrous Glass				Paint			
Amosite				Cellulose	2	5		Perlite			
Crocidolite				Synthetic				Binders	18		
Tremolite				Cotton				Plaster/Masonry			
Anthophyllite				Other				Bitumen		95	
Actinolite				Other				Other Aggregate	80		
Total % Asbestos	ND	ND		Total % of Other Fibrous Material	2%	5%		Total % of Non-Fibrous Material	98%	95%	

Comments: T: Tile, M: Mastic ND; None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-23-90

Job Name: Building 643 Lab ID#: 11577

Job No.: 1238-89-023 #9 Client Sample ID#: 643-03

Gross Sample Description: Door Mastic

Fiber: Straight/Stiff 2 Bundular 1 Regular

Morphology: Shredded/Irregular Heliptical Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation --	Dispersion Staining n∥	Dispersion Staining n⊥
1 Chrysotile	1.550		✓	low	✓				✓		magenta	blue
2 Fiberglass	1.550							✓				
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile	10	Fibrous Glass	25	Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	5
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	30
Actinolite		Other		~~Other~~ Aluminum	30
Total % Asbestos	10%	Total % of Other Fibrous Material	25%	Total % of Non-Fibrous Material	65%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

Note: The results pertain only to the sample identification above. The sample may not be fully representative of the larger material in question. Member of NVLAP (National Voluntary Laboratory Accreditation Program). This sheet may not be reproduced except with permission from Westinghouse Environmental & Geotechnical Services, Inc.

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-23-90

Job Name: Building 643 Lab ID#: 11578

Job No.: 1238-89-023 #9 Client Sample ID#: 643-04

Gross Sample Description: 2' x 2' Ceiling Tile

Fiber: Straight/Stiff 2 Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical 1 Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Cellulose	1.550		✓	Med.			✓		✓		yellow	blue
2 Mineral wool	1.550							✓				
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (M/W)	40	Paint	
Amosite		Cellulose	30	Perlite	25
Crocidolite		Synthetic		Binders	5
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	ND	Total % of Other Fibrous Material	70%	Total % of Non-Fibrous Material	30%

Comments: ND, none detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

Note: The results pertain only to the sample identification above. The sample may not be fully representative of the larger material in question. Member of NVLAP (National Voluntary Laboratory Accreditation Program). This sheet may not be reproduced except with permission from Westinghouse Environmental & Geotechnical Services, Inc.

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-23-90

Job Name: Building 643 Lab ID#: 11579

Job No.: 1238-89-023 #9 Client Sample ID#: 643-05

Gross Sample Description: Fireproofing

Fiber: Straight/Stiff 2 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Oblique	Rolling	Isotropic	Sign of Elongation +	−	Dispersion Staining n∥	n⊥
1 Cellulose	1.550		✓	Med.			✓		✓		yellow	blue
2 Fiberglass	1.550							✓				
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass	5	Paint	
Amosite		Cellulose	35	Perlite	
Crocidolite		Synthetic		Binders	20
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Mica	40
Total % Asbestos	ND	Total % of Other Fibrous Material	40%	Total % of Non-Fibrous Material	60%

Comments: ND Asbestos Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-23-90

Job Name: Building 643 Lab ID#: 11580

Job No.: 1238-89-023 #9 Client Sample ID#: 643-06

Gross Sample Description: Fireproofing

Fiber: Straight/Stiff 2 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2 Fiberglass	1.550							✓				
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass	5	Paint	
Amosite		Cellulose	40	Perlite	
Crocidolite		Synthetic		Binders	15
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Mica	40
Total % Asbestos	NO	Total % of Other Fibrous Material	45%	Total % of Non-Fibrous Material	55%

Comments: ND ; NONE DETECTED

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-23-90

Job Name: Building 643 Lab ID#: 11581

Job No.: 1238-89-023 #9 Client Sample ID#: 643-07

Gross Sample Description: Fire proofing

Fiber: Straight/Stiff 2 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2 Fiberglass	1.550							✓				
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass	10	Paint	
Amosite		Cellulose	30	Perlite	
Crocidolite		Synthetic		Binders	20
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other MICA	40
Total % Asbestos	ND	Total % of Other Fibrous Material	40%	Total % of Non-Fibrous Material	60%

Comments: ND ; NONE detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-23-90

Job Name: Building 643 Lab ID#: 11582

Job No.: 1238-89-023 #9 Client Sample ID#: 4129

Gross Sample Description: 10" Fiber

Fiber: Straight/Stiff 2 Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical 1 Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Cellulose	1.550		✓	Mod			✓		✓		yellow	blue
2 Mineral Wool	1.550							✓				
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (MW)	25	Paint	
Amosite		Cellulose	20	Perlite	
Crocidolite		Synthetic		Binders	53
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	2
Total % Asbestos	ND	Total % of Other Fibrous Material	45%	Total % of Non-Fibrous Material	55%

Comments: ND - None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-23-90

Job Name: Building 643 Lab ID#: 11583

Job No.: 1238-89-023 #9 Client Sample ID#: 4197

Gross Sample Description: 10" Elbow

Fiber: Straight/Stiff l Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical ____ Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Mineral Wool	1.550							✓				
2	1.550											
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (mix)	40	Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	35
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Aggregate	25
Total % Asbestos	ND	Total % of Other Fibrous Material	40%	Total % of Non-Fibrous Material	60%

Comments: ND ; None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-23-90

Job Name: Building 643 Lab ID#: 11584

Job No.: 1238-89-023 #9 Client Sample ID#: 4161

Gross Sample Description: 10" Elbow

Fiber: Straight/Stiff 2 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2 Mineralwool	1.550											
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (MW)	30	Paint	
Amosite		Cellulose	15	Perlite	
Crocidolite		Synthetic		Binders	50
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	5
Total % Asbestos	ND	Total % of Other Fibrous Material	45%	Total % of Non-Fibrous Material	55%

Comments: ND ; None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-23-90

Job Name: Building 643 Lab ID#: 11585

Job No.: 1238-89-023 #9 Client Sample ID#: 4159

Gross Sample Description: 10" Valve

Fiber: Straight/Stiff 2 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2 Mineral Wool	1.550							✓				
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (MW)	30	Paint	
Amosite		Cellulose	20	Perlite	
Crocidolite		Synthetic		Binders	99
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	1
Total % Asbestos	ND	Total % of Other Fibrous Material	50%	Total % of Non-Fibrous Material	50%

Comments: ND ; None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-23-90

Job Name: Building 643 Lab ID#: 11586

Job No.: 1238-89-023 #9 Client Sample ID#: 4155

Gross Sample Description: 10" Joint Insulation

Fiber: Straight/Stiff 2 Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical 1 Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2 Mineral Wool	1.550							✓				
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (M/W)	40	Paint	
Amosite		Cellulose	1	Perlite	
Crocidolite		Synthetic		Binders	55
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	4
Total % Asbestos	ND	Total % of Other Fibrous Material	41%	Total % of Non-Fibrous Material	59%

Comments: ND ; None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-23-90

Job Name: Building 643 Lab ID#: 11587

Job No.: 1238-89-023 #9 Client Sample ID#: 4178

Gross Sample Description: 10" Joint Insulation

Fiber: Straight/Stiff 2 Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2 Mineral wool	1.550							✓				
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (MW)	30	Paint	
Amosite		Cellulose	25	Perlite	
Crocidolite		Synthetic		Binders	35
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	10
Total % Asbestos	NO	Total % of Other Fibrous Material	55%	Total % of Non-Fibrous Material	45%

Comments: NO ; NONE Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-23-90

Job Name: Building 643 Lab ID#: 11538

Job No.: 1238-89-023 #9 Client Sample ID#: 4168

Gross Sample Description: Boiler Gasket

Fiber: Straight/Stiff ✓ Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical ____ Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Mineral Wool	1.550							✓				
2	1.550											
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass MW	98	Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	2
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	ND	Total % of Other Fibrous Material	98%	Total % of Non-Fibrous Material	2%

Comments: ND ; None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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BULK SA PLE

CHAIN OF CUSTODY RECORD

PROJ. #	PROJ. NAME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
89-023	FMWTC Amend #9	Lin Spivey	10/23	AM	Steve Thompson
FACILITY		RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Bldg 645					
SAMPLER(S)	**DATE TAKEN**	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
L. Spivey	10/18/90				

SAMPLE #	HOMOGENEOUS AREA	MATERIAL TYPE	LAB NUMBER	DATE ANALYZED	ANALYSTS INITIALS	ASBESTOS +	ASBESTOS N/D	ARCHIVE NUMBER	DATE ARCH	ARCHIVER INITIALS	SPECIAL INSTRUCTIONS
645-01		J	11669	10-31-90	ST		/				12" Gold
645-02		J	11670				/				12" Blue
645-03		J	11671			<1%					Red F.T.
645-04		N	11672			/					2x4' C.T.
645-05		J	11673			/	ND /				12" White
645-05A		P	11674			/					F.T. Mastic
4147		B	11675			/					4" Elbow
4158		B	11676			/					"
4191		B	11677				/				"
4162		P	11678			/					Pipe Mastic

MATERIAL TYPES

A - < 4" Pipe Fitting
B - 4-8" Pipe Fitting
C - 9-14" Pipe Fitting
D - > 14" Pipe Fitting
E - < 4" Pipe
F - 4-8" Pipe
G - 9-14" Pipe
H - > 14" Pipe

I - Spray-On/Trowel
J - Floor Tile
K - Tanks/Boiler
L - A.H.U. Insul.
M - A.H.U. Exp. Jt.
N - Ceiling/Wall Tile
O - Fiberboard

P - Other
(See notes - Front or back)

ALL SAMPLES WILL BE DISPOSED OF NINETY DAYS AFTER ANALYSIS UNLESS OTHERWISE REQUESTED

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-31-90
Job Name: Building 645 Lab ID#: 11669
Job No.: 1238-89-023 #9 Client Sample ID#: 645-01

Gross Sample Description: 12" Gold Floor Tile

Fiber: Straight/Stiff _____ Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n⊥
1	1.550											
2	1.550											
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass		Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	20
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Aggregate	80
Total % Asbestos	NO	Total % of Other Fibrous Material	0%	Total % of Non-Fibrous Material	100%

Comments: No Mastic with Sample NO; NONE Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-31-90

Job Name: Building 645 Lab ID#: 11670

Job No.: 1238-89-023 #9 Client Sample ID#: 645-02

Gross Sample Description: 12" Blue Floor Tile / Adhesive

Fiber: Straight/Stiff _____ Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical / Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n ⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2	1.550											
3												
4												

Asbestos:	% 1	% 2	Other Fibrous Materials:	% 1	% 2	Non-Fibrous Materials:	% 1	% 2
Chrysotile			Fibrous Glass			Paint		
Amosite			Cellulose	<1	5	Perlite		
Crocidolite			Synthetic			Binders	20	85
Tremolite			Cotton			Plaster/Masonry		
Anthophyllite			Other _____			Bitumen		
Actinolite			Other _____			Other Aggregate	80	10
Total % Asbestos	ND	ND	Total % of Other Fibrous Material	<1%	5%	Total % of Non-Fibrous Material	100%	95%

Comments: 1=Tile 2=Adhesive ND, None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

Note: The results pertain only to the sample identification above. The sample may not be fully representative of the larger material in question. Member of NVLAP (National Voluntary Laboratory Accreditation Program). This sheet may not be reproduced except with permission from Westinghouse Environmental & Geotechnical Services, Inc.

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Mt. Pleasant, South Carolina 29464
(803) 884-0005 FAX: (803) 881-6149

ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-31-90

Job Name: Building 645 Lab ID#: 11671

Job No.: 1238-89-023 #9 Client Sample ID#: 645-03

Gross Sample Description: Red Floor Tile / Adhesive

Fiber: Straight/Stiff _____ Bundular 1 Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n⊥
1 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
2	1.550											
3												
4												

Asbestos:	1	% 2	Other Fibrous Materials:	1	% 2	Non-Fibrous Materials:	1	% 2
Chrysotile	<1		Fibrous Glass			Paint		
Amosite			Cellulose			Perlite		
Crocidolite			Synthetic			Binders	15	50
Tremolite			Cotton			Plaster/Masonry		
Anthophyllite			Other			Bitumen		
Actinolite			Other			Other Aggregate	85	50
Total % Asbestos	<1%	ND	Total % of Other Fibrous Material	0%	0%	Total % of Non-Fibrous Material	100%	100%

Comments: 1= Tile 2= adhesive ND : None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-31-90

Job Name: Building 645 Lab ID#: 11672

Job No.: 1238-89-023 #9 Client Sample ID#: 645-04

Gross Sample Description: 2x4 Ceiling Tile

Fiber: Straight/Stiff 1, 3 Bundular 2 Regular ____

Morphology: Shredded/Irregular ____ Heliptical ____ Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n⊥
1 Mineral Wool	1.550		✓	—				✓	—	—	—	—
2 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
3 Amosite	1.680		✓	Mod.		✓			✓		Dark yellow	blue
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile	1	Fibrous Glass (mw)	85	Paint	
Amosite	3	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	11
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	4%	Total % of Other Fibrous Material	85%	Total % of Non-Fibrous Material	11%

Comments: ____

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-31-90

Job Name: Building 645 Lab ID#: 11673 & 11674

Job No.: 1238-89-023 #9 Client Sample ID#: 645-05 & 645-05A

Gross Sample Description: 12" White Floor Tile / Mastic

Fiber: Straight/Stiff _____ Bundular ✓ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n⊥
1 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
2	1.550											
3												
4												

Asbestos:	1	2	Other Fibrous Materials:	1	2	Non-Fibrous Materials:	1	2
Chrysotile		7	Fibrous Glass			Paint		
Amosite			Cellulose			Perlite		
Crocidolite			Synthetic			Binders	15	
Tremolite			Cotton			Plaster/Masonry		
Anthophyllite			Other			Bitumen		93
Actinolite			Other			Other Aggregate	85	
Total % Asbestos	ND	7%	Total % of Other Fibrous Material	0%	0%	Total % of Non-Fibrous Material	100%	93%

Comments: 1=Tile 2=Mastic ND, None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-31-90

Job Name: Building 645 Lab ID#: 11675

Job No.: 1238-89-023 #9 Client Sample ID#: 4147

Gross Sample Description: Pipe Elbows

Fiber: Straight/Stiff 1 Bundular 2 Regular ____

Morphology: Shredded/Irregular ____ Heliptical ____ Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n⊥
1 Mineral Wool	1.550		✓	—				✓	—	—	—	—
2 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile	35	Fibrous Glass (RW)	30	Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	35
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	35%	Total % of Other Fibrous Material	30%	Total % of Non-Fibrous Material	35%

Comments: ____

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-31-90

Job Name: Building 645 Lab ID#: 11676

Job No.: 1238-89-023 #9 Client Sample ID#: 4158

Gross Sample Description: Pipe Elbow

Fiber: Straight/Stiff 1 Bundular 2 Regular ____

Morphology: Shredded/Irregular ____ Heliptical ____ Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n⊥
1 Mineral Wool	1.550		✓	—				✓	—	—	—	—
2 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile	28	Fibrous Glass (Mw)	30	Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	42
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	28%	Total % of Other Fibrous Material	30%	Total % of Non-Fibrous Material	42%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-31-90

Job Name: Building 645 Lab ID#: 11677

Job No.: 1238-89-023 #9 Client Sample ID#: 4191

Gross Sample Description: Elbow Insulation

Fiber: Straight/Stiff 1 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical ____ Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation --	Dispersion Staining n =	Dispersion Staining n⊥
1 Mineral Wool	1.550		✓	—				✓	—	—	—	—
2	1.550											
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (MW)	40	Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	57
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	3
Total % Asbestos	ND	Total % of Other Fibrous Material	40%	Total % of Non-Fibrous Material	60%

Comments: ND ; None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammend. #9 Date: 10-31-90
Job Name: Building 645 Lab ID#: 11678
Job No.: 1238-89-023 #9 Client Sample ID#: 4162

Gross Sample Description: Pipe Mastic

Fiber: Straight/Stiff 2, 3 Bundular 4 Regular
Morphology: Shredded/Irregular Heliptical 1 Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n⊥
1 Cellulose	1.550		✓	Mod			✓		✓		yellow	blue
2 Fiberglass	1.550		✓	—				✓	—	—	—	
3 Tremolite	1.605		✓	high		✓			✓		yellow	blue
4 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile	5	Fibrous Glass	10	Paint	
Amosite		Cellulose	2	Perlite	
Crocidolite		Synthetic		Binders	
Tremolite	3	Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	65
Actinolite		Other		Other Foil (Metal)	15
Total % Asbestos	8%	Total % of Other Fibrous Material	12%	Total % of Non-Fibrous Material	80%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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BUI " SAMPLE

CHAIN OF CUSTODY RECORD

(1)

PROJ. #	PROJ. NAME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
1238-89-023	FMWTC Ammend #9	Tim Spivey	10/23	AM	ST
FACILITY		RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Bldg 647					
SAMPLER(S)	**DATE TAKEN**	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
T. Spivey	10/17/90				

SAMPLE #	HOMOGENEOUS AREA	MATERIAL TYPE	LAB NUMBER	DATE ANALYZED	ANALYSTS INITIALS	ASBESTOS +	ASBESTOS N/D	ARCHIVE NUMBER	DATE ARCH	ARCHIVER INITIALS	SPECIAL INSTRUCTIONS
647-01		J	11611	10-26-90	ST		/	11611-		11643	12" White
647-01A		P	11612	10-26-90			/		10-28-90		F.T. Mastic
647-02		P	11613	10-25-90			/		ST		Duct Mastic
647-03		N	11614	10-26-90			/				2x4 C.T.
647-04		J	11615	10-27-90			/				12" ~~Blue~~ Tan
647-05		J	11616	10-27-90		/					9" Tan
647-06		J	11617	10-26-90		/					9" Green
647-06A		P	11618	10-26-90		/					F.T. Mastic
647-07		J	11619	10-27-90		/					9" Grey
647-08		J	11620	10-26-90		<1%					9" Tan
647-08A		P	11621	10-26-90			/				F.T. Mastic
647-09		N	11622	10-25-90			/				2x4 C.T.
647-10		J	11623	10-26-90			/				12" Blue
647-10A		P	11624	10-26-90			/				F.T. Mastic
*3273		B	11625	10-26-90		/					6" Elbow
4177		B	11626	10-28-90	V	/					8" Elbow

MATERIAL TYPES

A - < 4" Pipe Fitting
B - 4-8" Pipe Fitting
C - 9-14" Pipe Fitting
D - > 14" Pipe Fitting
E - < 4" Pipe
F - 4-8" Pipe
G - 9-14" Pipe
H - > 14" Pipe

I - Spray-On/Trowel
J - Floor Tile
K - Tanks/Boiler
L - A.H.U. Insul.
M - A.H.U. Exp. Jt.
N - Ceiling/Wall Tile
O - Fiberboard

P - Other
(See notes - Front or back)

ALL SAMPLES WILL BE DISPOSED OF NINETY DAYS AFTER ANALYSIS UNLESS OTHERWISE REQUESTED

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BULK SAMPLE

CHAIN OF CUSTODY RECORD

(2)

PROJ. #	PROJ. NAME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
1238-89-023	FMWTC Amendment #9	Tim Spivey	10/23	Am	ST
FACILITY		RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Bldg 647					
SAMPLER(S)	**DATE TAKEN**	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
T. Spivey	10/17/90				

SAMPLE #	HOMOGENEOUS AREA	MATERIAL TYPE	LAB NUMBER	DATE ANALYZED	ANALYSTS INITIALS	ASBESTOS +	ASBESTOS N/D	ARCHIVE NUMBER	DATE ARCH	ARCHIVER INITIALS	SPECIAL INSTRUCTIONS
4189		B	11627	10-27-90	ST	/					6" Elbow
3271		B	11628	10-27-90		/					4" Elbow
4179		A	11629	10-27-90		/					3" Elbow
*4199		A	11630	10-25-90		/					2" Elbow
4182		C	11631	10-27-90		/					12" Elbow
4180		D	11632	10-26-90		/					Boiler Breeching
4165		D	11633	10-26-90		/					"
4156		D	11634	10-28-90		/					"
4152		K	11635	10-26-90		/					Tank
3265		K	11636	10-28-90		/					"
4183		K	11637	10-27-90		/					"
4154		K	11638	10-27-90		/					"
4151		K	11639	10-27-90		/					"
4149		K	11640	10-26-90		/					"
4160		B	11641	10-27-90		/					Valve
4194		B	11642	10-26-90			/				Fitting

MATERIAL TYPES

A - < 4" Pipe Fitting
B - 4-8" Pipe Fitting
C - 9-14" Pipe Fitting
D - > 14" Pipe Fitting
E - < 4" Pipe
F - 4-8" Pipe
G - 9-14" Pipe
H - > 14" Pipe

I - Spray-On/Trowel
J - Floor Tile
K - Tanks/Boiler
L - A.H.U. Insul.
M - A.H.U. Exp. Jt.
N - Ceiling/Wall Tile
O - Fiberboard

P - Other (See notes - Front or back)

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BULK SAMPLE

CHAIN OF CUSTODY RECORD

PROJ. #	PROJ. NAME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
89-023	FMWTC Amend #9	[illegible]	10/23	AM	ST
FACILITY		RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Bldg 647					
SAMPLER(S)	**DATE TAKEN**	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
T. Sowy	10/17/90				

SAMPLE #	HOMOGENEOUS AREA	MATERIAL TYPE	LAB NUMBER	DATE ANALYZED	ANALYSTS INITIALS	ASBESTOS +	ASBESTOS N/D	ARCHIVE NUMBER	DATE ARCH	ARCHIVER INITIALS	SPECIAL INSTRUCTIONS
4171		B	11643	10-27-90	ST	/					Fitting

MATERIAL TYPES

A - < 4" Pipe Fitting
B - 4-8" Pipe Fitting
C - 9-14" Pipe Fitting
D - > 14" Pipe Fitting
E - < 4" Pipe
F - 4-8" Pipe
G - 9-14" Pipe
H - > 14" Pipe

I - Spray-On/Trowel
J - Floor Tile
K - Tanks/Boiler
L - A.H.U. Insul.
M - A.H.U. Exp. Jt
N - Ceiling/Wall Tile
O - Fiberboard

P - Other (See notes - Front or back)

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-26-90

Job Name: Building647 Lab ID#: 11611 & 11612

Job No.: 1238-89-023 # 9 Client Sample ID#: 647-01

Gross Sample Description: 12" white Floor Tile / Mastic

Fiber: Straight/Stiff ____ Bundular ____ Regular 2
Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation -	Dispersion Staining ∥	Dispersion Staining ⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2 Synthetic	1.550		✓	high		✓			—		—	
3												
4												

Asbestos:	T	%	M	Other Materials:	T	%	M	Non-Fibrous Materials:	T	%	M
Chrysotile				Fibrous Glass				Paint			
Amosite				Cellulose	<1	10		Perlite			
Crocidolite				Synthetic		2		Binders	65	88	
Tremolite				Cotton				Plaster/Masonry			
Anthophyllite				Other				Bitumen			
Actinolite				Other				Other Aggregate	35		
Total % Asbestos	ND		ND	Total % of Other Fibrous Material	<1%	12%		Total % of Non-Fibrous Material	100%	88%	

Comments: T: Tile, M: Mastic ND Asbestos Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWIC Date: 10-25-90

Job Name: Building 647 Lab ID#: 11613

Job No.: 1238-89-023 #9 Client Sample ID#: 647-02

Gross Sample Description: Duct Mastic

Fiber: Straight/Stiff 2 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2 Fiberglass	1.550		✓	—				✓	—	—	—	—
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass	25	Paint	
Amosite		Cellulose	20	Perlite	
Crocidolite		Synthetic		Binders	20
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	20
Actinolite		Other		Other Aluminum	15
Total % Asbestos	NO	Total % of Other Fibrous Material	45%	Total % of Non-Fibrous Material	55%

Comments: NO NONE Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-26-90

Job Name: Building 647 Lab ID#: 11614

Job No.: 1238-89-023 #9 Client Sample ID#: 647-03

Gross Sample Description: Ceiling Tile

Fiber: Straight/Stiff 2 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Cellulose	1.550		✓	Mod			✓		✓		yellow	blue
2 Mineral Wool	1.550		✓	—				✓	—	—	—	—
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (low)	30	Paint	
Amosite		Cellulose	30	Perlite	35
Crocidolite		Synthetic		Binders	5
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	ND	Total % of Other Fibrous Material	60%	Total % of Non-Fibrous Material	40%

Comments: No Asbestos Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Hillert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-27-90

Job Name: Building647 Lab ID#: 11615

Job No.: 1238-89-023 # 9 Client Sample ID#: 647-04

Gross Sample Description: 12" Tan Floor Tile / Mastic

Fiber: Straight/Stiff _____ Bundular 2 Regular _____
Morphology: Shredded/Irregular _____ Heliptical 1 Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation -	Dispersion Staining ∥	Dispersion Staining ⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2 Synthetic	1.550		✓	Mod	✓				✓		—	—
3												
4												

Asbestos:	T %	M
Chrysotile		
Amosite		
Crocidolite		
Tremolite		
Anthophyllite		
Actinolite		
Total % Asbestos	ND	ND

Other Materials:	T %	M
Fibrous Glass		
Cellulose	5	
Synthetic		10
Cotton		
Other		
Other		
Total % of Other Fibrous Material	5%	10%

Non-Fibrous Materials:	T %	M
Paint		
Perlite		
Binders	35	
Plaster/Masonry		
Bitumen		70
Other Aggregate	60	20
Total % of Non-Fibrous Material	95%	90%

Comments: T: Tile, M: Mastic NA: None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-27-90

Job Name: Building 647 Lab ID#: 11616

Job No.: 1238-89-023 #9 Client Sample ID#: 647-05

Gross Sample Description: 9" Tan Floor Tile

Fiber: Straight/Stiff _____ Bundular 1 Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
2	1.550											
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile	11	Fibrous Glass		Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	29
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Aggregate	60
Total % Asbestos	11%	Total % of Other Fibrous Material	0%	Total % of Non-Fibrous Material	89%

Comments: Insufficient mastic for analysis

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-24-90

Job Name: Building647 Lab ID#: 11617-11618

Job No.: 1238-89-023 # 9 Client Sample ID#: 647-C6

Gross Sample Description: 9" Green Floor Tile / Mastic

Fiber: Straight/Stiff _____ Bundular | Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation -	Dispersion Staining ∥	Dispersion Staining ⊥
1 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
2	1.550											
3												
4												

Asbestos:	T %	M	Other Materials:	T %	M	Non-Fibrous Materials:	T %	M
Chrysotile	5	6	Fibrous Glass			Paint		
Amosite			Cellulose			Perlite		
Crocidolite			Synthetic			Binders	35	
Tremolite			Cotton			Plaster/Masonry		
Anthophyllite			Other			Bitumen		94
Actinolite			Other			Other Aggregate	60	
Total % Asbestos	5%	6%	Total % of Other Fibrous Material	0%	0%	Total % of Non-Fibrous Material	95%	94%

Comments: T: Tile, M: Mastic

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Hilliard

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31 OS BULK SAMPLE ANALYSIS*

Date: 10-27-90

Lab ID#: 1169

Client Sample ID#: 647-07

9" Grey Floor Tile / Mastic

Bundular 1 Regular
'egular Heliptical 2 Other

Bire-fringence	Angle of Extinction: Parallel	Oblique	Rolling	Isotropic	Sign of Elongation +	-	Dispersion Staining ∥	⊥
low	✓				✓		yellow	blue
Med.			✓		✓		yellow	blue

Other 'aterials:	T	%	M	Non-Fibrous Materials:	T	%	M
Fibrous Glass				Paint			
Cellulose	2			Perlite			
Synthetic				Binders	45		
Cotton				Plaster/Masonry			
Other				Bitumen		97	
Other				Other Aggregate	50		
Total % of Other Fibrous Material	2%	2%		Total % of Non-Fibrous Material	95%	97%	

lastic

opy coupled with dispersion staining is the technique
ı. The percentage of each component is visually

ue Thompson

or: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-26-90

Job Name: Building647 Lab ID#: 11620/11621

Job No.: 1238-89-023 # 9 Client Sample ID#:

Gross Sample Description: 9" Tan Floor Tile / Mastic

Fiber: Straight/Stiff ____ Bundular 2 Regular ____
Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation -	Dispersion Staining ∥	Dispersion Staining ⊥
1 Cellulose	1.550		✓	Med.			✓		✓		yellow	blue
2 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
3												
4												

Asbestos:	T	%	M	Other Materials:	T	%	M	Non-Fibrous Materials:	T	%	M
Chrysotile	<1			Fibrous Glass				Paint			
Amosite				Cellulose		20		Perlite			
Crocidolite				Synthetic				Binders	25		
Tremolite				Cotton				Plaster/Masonry			
Anthophyllite				Other				Bitumen		80	
Actinolite				Other				Other Aggregate	75		

Total % Asbestos	T	M	Total % of Other Fibrous Material	T	M	Total % of Non-Fibrous Material	T	M
	<1%	ND		0%	20%		100%	80%

Comments: T: Tile, M: Mastic ND: None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Lillet

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-25-90

Job Name: Building 647 Lab ID#: 11622

Job No.: 1238-89-023 #9 Client Sample ID#: 647-09

Gross Sample Description: 2'x4' Ceiling Tile

Fiber: Straight/Stiff 2 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Cellulose	1.550		✓	Mod			✓		✓		yellow	blue
2 Fibrous	1.550		✓	—				✓	—	—	—	—
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass	7	Paint	
Amosite		Cellulose	15	Perlite	
Crocidolite		Synthetic		Binders	5
Tremolite		Cotton		Plaster/Masonry	55
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Aggregate	18
Total % Asbestos	NP	Total % of Other Fibrous Material	22%	Total % of Non-Fibrous Material	78%

Comments: NP ; None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-26-90

Job Name: Building647 Lab ID#: 11623&11624

Job No.: 1238-89-023 # 9 Client Sample ID#: 647-10

Gross Sample Description: 12" Blue Floor Tile / Mastic

Fiber: Straight/Stiff _____ Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical 1 Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation -	Dispersion Staining ∥	Dispersion Staining ⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2	1.550											
3												
4												

Asbestos:	T %	M
Chrysotile		
Amosite		
Crocidolite		
Tremolite		
Anthophyllite		
Actinolite		
Total % Asbestos	ND	ND

Other Materials:	T %	M
Fibrous Glass		
Cellulose	<1	15
Synthetic		
Cotton		
Other		
Other		
Total % of Other Fibrous Material	<1%	15%

Non-Fibrous Materials:	T %	M
Paint		
Perlite		
Binders	30	
Plaster/Masonry		
Bitumen		84
Other Aggregate	70	1
Total % of Non-Fibrous Material	100%	85%

Comments: T: Tile. M: Mastic ND; None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-26-90

Job Name: Building 647 Lab ID#: 11625

Job No.: 1238-89-023 #9 Client Sample ID#: 3273

Gross Sample Description: 4" Pipe Elbow

Fiber: Straight/Stiff 1, 2 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical ____ Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Mineral wool	1.550		✓					✓	—	—	—	—
2 Amosite	~~1.550~~ 1.680		✓	Mod		✓			✓		Dark yellow	blue
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (ow)	30	Paint	
Amosite	2	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	67
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	1
Total % Asbestos	2%	Total % of Other Fibrous Material	30%	Total % of Non-Fibrous Material	68%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-28-90

Job Name: Building 647 Lab ID#: 11626

Job No.: 1238-89-023 #9 Client Sample ID#: 4177

Gross Sample Description: 8" Elbow

Fiber: Straight/Stiff 1, 3 Bundular 2 Regular
Morphology: Shredded/Irregular Heliptical Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Mineral wool	1.550							✓				
2 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
3 Amosite	1.680		✓	Mod		✓			✓		dark yellow	blue
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile	2	Fibrous Glass (MW)	20	Paint	
Amosite	2	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	71
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Quartz	5
Total % Asbestos	4%	Total % of Other Fibrous Material	20%	Total % of Non-Fibrous Material	76%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Lilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-27-90

Job Name: Building 647 Lab ID#: 11677

Job No.: 1238-89-023 #9 Client Sample ID#: 4189

Gross Sample Description: 6" Fibrous

Fiber: Straight/Stiff 1, 2 Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation —	Dispersion Staining n∥	Dispersion Staining n⊥
1 Mineral Wool	1.550							✓				
2 Amosite	~~1.550~~ 1.678		✓	Mod		✓			✓		Dark yellow	blue
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (Mw)	20	Paint	
Amosite	10	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	70
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	10%	Total % of Other Fibrous Material	20%	Total % of Non-Fibrous Material	70%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-27-90

Job Name: Building 647 Lab ID#: 11628

Job No.: 1238-89-023 #9 Client Sample ID#: 3271

Gross Sample Description: 4" Elbow

Fiber: Straight/Stiff 1, 2 Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Mineral Wool	1.550							✓				
2 Amosite	~~1.550~~ 1.690		✓	Med.		✓			✓		Dark yellow	blue
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (mw)	20	Paint	
Amosite	2	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	75
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	3
Total % Asbestos	2%	Total % of Other Fibrous Material	20%	Total % of Non-Fibrous Material	78%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Lilliet

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-27-90

Job Name: Building 647 Lab ID#: 11629

Job No.: 1238-89-023 #9 Client Sample ID#: 4179

Gross Sample Description: 3" Elbow

Fiber: Straight/Stiff 1 Bundular 2 Regular

Morphology: Shredded/Irregular Heliptical Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n|	Dispersion Staining n⊥
1 Mineral Wool	1.550							✓				
2 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile	40	Fibrous Glass (MMV)	25	Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	35
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	40%	Total % of Other Fibrous Material	25%	Total % of Non-Fibrous Material	35%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-25-90

Job Name: Building 647 Lab ID#: 11630

Job No.: 1238-89-023 #9 Client Sample ID#: 4199

Gross Sample Description: 2" Elbow Insulation

Fiber: Straight/Stiff 1 & 2 Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Mineral Wool	1.550							✓				
2 Amosite	1.550		✓	Mod.		✓			✓		dark yellow	blue
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass(MW)	30	Paint	
Amosite	2	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	68
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	2%	Total % of Other Fibrous Material	30%	Total % of Non-Fibrous Material	68%

Comments: _____

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-27-90

Job Name: Building 647 Lab ID#: 11631

Job No.: 1238-89-023 #9 Client Sample ID#: 4182

Gross Sample Description: 12" Elbow Insulation

Fiber: Straight/Stiff 1, 3 Bundular 2 Regular
Morphology: Shredded/Irregular Heliptical Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Muscovite	1.550											
2 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
3 Amosite	1.680		✓	mod.		✓			✓		Dark yellow	blue
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile	<1	Fibrous Glass (mm)	20	Paint	
Amosite	4	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	76
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	4%	Total % of Other Fibrous Material	20%	Total % of Non-Fibrous Material	76%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clair Hilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-26-90

Job Name: Building 647 Lab ID#: 11632

Job No.: 1238-89-023 #9 Client Sample ID#: 4180

Gross Sample Description: Boiler Breeching

Fiber: Straight/Stiff 1, 3 Bundular 2 Regular
Morphology: Shredded/Irregular Heliptical Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Mineral wool	1.550							✓				
2 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
3 Amosite	1.680		✓	Mod		✓			✓		Dark yellow	blue
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile	7	Fibrous Glass (m/a)	15	Paint	
Amosite	70	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	38
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	47%	Total % of Other Fibrous Material	15%	Total % of Non-Fibrous Material	38%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-26-90

Job Name: Building 647 Lab ID#: 11633

Job No.: 1238-89-023 #9 Client Sample ID#: 4165

Gross Sample Description: Boiler Breeching

Fiber: Straight/Stiff 1 Bundular 2 Regular

Morphology: Shredded/Irregular Heliptical Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Amosite	~~1.550~~ 1.550		✓	Mod		✓			✓		Rather yellow	blue
2 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile	10	Fibrous Glass		Paint	
Amosite	50	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	40
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	60%	Total % of Other Fibrous Material	0%	Total % of Non-Fibrous Material	40%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-28-90

Job Name: Building 647 Lab ID#: 11634

Job No.: 1238-89-023 #9 Client Sample ID#: 4156

Gross Sample Description: Boiler Breeching

Fiber: Straight/Stiff 1, 3 Bundular 2 Regular
Morphology: Shredded/Irregular Heliptical Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Mineral wool	1.550							✓				
2 Chrysotile	1.550		✓	low	✓				✓		magenta	blue
3 Amosite	1.650		✓	mod		✓			✓		dark yellow	blue
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile	10	Fibrous Glass (new)	10	Paint	
Amosite	40	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	40
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	50%	Total % of Other Fibrous Material	10%	Total % of Non-Fibrous Material	40%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-26-90

Job Name: Building 647 Lab ID#: 11635

Job No.: 1238-89-023 #9 Client Sample ID#: 4152

Gross Sample Description: TANK Insulation

Fiber: Straight/Stiff 1, 3 Bundular 2 Regular ____
Morphology: Shredded/Irregular ____ Heliptical ____ Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Mineral Wool	1.550		✓	—				✓	—	—	—	—
2 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
3 Amosite	1.680		✓	Mod		✓			✓		dark yellow	blue
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile	1	Fibrous Glass (MW)	20	Paint	
Amosite	1	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	78
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	2%	Total % of Other Fibrous Material	20%	Total % of Non-Fibrous Material	78%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-28-90

Job Name: Building 647 Lab ID#: 11636

Job No.: 1238-89-023 #9 Client Sample ID#: 3265

Gross Sample Description: TANK Insulation

Fiber: Straight/Stiff 1, 2 Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Mineral Wool	1.550							✓				
2 Amosite	~~1.550~~ 1.680		✓	Mod		✓			✓		dark yellow	blue
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (MW)	25	Paint	
Amosite	2	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	70
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	3
Total % Asbestos	2%	Total % of Other Fibrous Material	25%	Total % of Non-Fibrous Material	73%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thomason

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-27-90

Job Name: Building 647 Lab ID#: 11637

Job No.: 1238-89-023 #9 Client Sample ID#: 4183

Gross Sample Description: TANK Insulation

Fiber: Straight/Stiff 1, 3 Bundular 2 Regular
Morphology: Shredded/Irregular Heliptical Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Riebeckite	1.550											
2 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
3 Amosite			✓	Mod		✓			✓		Dark yellow	blue
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile	1	Fibrous Glass (MW)	20	Paint	
Amosite	2	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	75
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	2
Total % Asbestos	3%	Total % of Other Fibrous Material	20%	Total % of Non-Fibrous Material	77%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-27-90

Job Name: Building 647 Lab ID#: 116-35

Job No.: 1238-89-023 #9 Client Sample ID#: 4154

Gross Sample Description: Expansion Tank Insulation

Fiber: Straight/Stiff 1, 2 Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Mineral Wool	1.550		✓	—				✓	—	—	—	—
2 Amosite	~~1.550~~ 1.680		✓	Med.		✓			✓		Reddish Magenta	blue
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (Mu)	25	Paint	
Amosite	2	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	70
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Quartz	3
Total % Asbestos	2%	Total % of Other Fibrous Material	25%	Total % of Non-Fibrous Material	73%

Comments: _____

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-27-90

Job Name: Building 647 Lab ID#: 11659

Job No.: 1238-89-023 #9 Client Sample ID#: 4151

Gross Sample Description: Expansion Tank Insulation

Fiber: Straight/Stiff 1, 2 Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Nonasbestos	1.550							✓				
2 Amosite	~~1.550~~ 1.680		✓	Med.		✓			✓		dark yellow	blue
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (MW)	25	Paint	
Amosite	5	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	68
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	2
Total % Asbestos	5%	Total % of Other Fibrous Material	25%	Total % of Non-Fibrous Material	70%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Hilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-26-90

Job Name: Building 647 Lab ID#: 11640

Job No.: 1238-89-023 #9 Client Sample ID#: 4149

Gross Sample Description: Expansion Tank Insulation

Fiber: Straight/Stiff 1, 3 Bundular 2 Regular

Morphology: Shredded/Irregular Heliptical Other

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Mineral Wool	1.550							✓				
2 Chrysotile	1.550		✓	low	✓				✓		magenta	blue
3 Amosite	1.680		✓	Mod.		✓			✓		Dark yellow	blue
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile	1	Fibrous Glass (MMW)	20	Paint	
Amosite	2	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	77
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	3%	Total % of Other Fibrous Material	20%	Total % of Non-Fibrous Material	77%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-27-90

Job Name: Building 647 Lab ID#: 11641

Job No.: 1238-89-023 #9 Client Sample ID#: 4160

Gross Sample Description: Valve Insulation

Fiber: Straight/Stiff 1, 2 Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Mineral Wool	1.550							✓				
2 Amosite	~~1.550~~ 1.680		✓	Mod.		✓			✓		Dark yellow	blue
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass(MW)	25	Paint	
Amosite	3	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	65
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Quartz	2
Total % Asbestos	8%	Total % of Other Fibrous Material	25%	Total % of Non-Fibrous Material	67%

Comments: _____

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-26-90

Job Name: Building 647 Lab ID#: 11642

Job No.: 1238-89-023 #9 Client Sample ID#: 4194

Gross Sample Description: Pipe Fitting

Fiber: Straight/Stiff 1 Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Mineral Wool	1.550		✓	—				✓	—	—	—	—
2	1.550											
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (MW)	40	Paint	<1
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	50
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	10
Total % Asbestos	ND	Total % of Other Fibrous Material	40%	Total % of Non-Fibrous Material	60%

Comments: ND : None detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-27-90

Job Name: Building 647 Lab ID#: 11643

Job No.: 1238-89-023 #9 Client Sample ID#: 4171

Gross Sample Description: Fitting Insulation

Fiber: Straight/Stiff 1, 2 Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction Parallel	Angle of Extinction Oblique	Angle of Extinction Rolling	Angle of Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Mineral Wool	1.550		✓	—				✓	—	—	—	—
2 Amosite	~~1.550~~ 1.680		✓	Mod.		✓			✓		Dark yellow	blue
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass (MM)	20	Paint	
Amosite	2	Cellulose		Perlite	
Crocidolite		Synthetic		Binders	77
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other QUARTZ	1
Total % Asbestos	2%	Total % of Other Fibrous Material	20%	Total % of Non-Fibrous Material	78

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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BULK SAMPLE

CHAIN OF CUSTODY RECORD

PROJ. #	PROJ. NAME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
89-023	Ammend 9 FMWTC	S. Spivey	11/7	PM	Keene Slade
FACILITY		RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Bldg 1303					
SAMPLER(S)	**DATE TAKEN**	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
S Spivey	11/7/90				

SAMPLE #	HOMOGENEOUS AREA	MATERIAL TYPE	LAB NUMBER	DATE ANALYZED	ANALYSTS INITIALS	ASBESTOS +	ASBESTOS N/D	ARCHIVE NUMBER	DATE ARCH	ARCHIVER INITIALS	SPECIAL INSTRUCTIONS
01		J	11804	11-9-90	ST		/	11804-11805			12" Blue
02		J	11805	↓	↓		/		11-9-90 ST		12" Red

MATERIAL TYPES

A - < 4" Pipe Fitting
B - 4-8" Pipe Fitting
C - 9-14" Pipe Fitting
D - > 14" Pipe Fitting
E - < 4" Pipe
F - 4-8" Pipe
G - 9-14" Pipe
H - > 14" Pipe

I - Spray-On/Trowel
J - Floor Tile
K - Tanks/Boiler
L - A.H.U. Insul.
M - A.H.U. Exp. Jt.
N - Ceiling/Wall Tile
O - Fiberboard

P - Other (See notes - Front or back)

ALL SAMPLES WILL BE DISPOSED OF NINETY DAYS AFTER ANALYSIS UNLESS OTHERWISE REQUESTED

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840 Low Country Boulevard
Mt. Pleasant, South Carolina 29464
(803) 884-0005 FAX: (803) 881-6149

ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC AMMEND. #9 Date: 11-9-90

Job Name: Bldg. 1303 Lab ID#: 11804

Job No.: 1238-89-023 Client Sample ID#: 1

Gross Sample Description: 12" x 12" Blue Floor Tile / Adhesive

Fiber: Straight/Stiff _____ Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical 1 Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2	1.550											
3												
4												

Asbestos:	%		Other Fibrous Materials:	%		Non-Fibrous Materials:	%	
Chrysotile			Fibrous Glass			Paint		
Amosite			Cellulose		<1	Perlite		
Crocidolite			Synthetic			Binders	20	95
Tremolite			Cotton			Plaster/Masonry		
Anthophyllite			Other			Bitumen		
Actinolite			Other			Other Aggregate	80	5
Total % Asbestos	ND	ND	Total % of Other Fibrous Material	0%	<1%	Total % of Non-Fibrous Material	100%	100%

Comments: There appears to be a small portion of red floor tile adhered to the bottom of blue tile [1=Tile 2=Adhesive] ND; NONE DETECTED

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

Note: The results pertain only to the sample identification above. The sample may not be fully representative of the larger material in question. Member of NVLAP (National Voluntary Laboratory Accreditation Program). This sheet may not be reproduced except with permission from Westinghouse Environmental & Geotechnical Services, Inc.

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC AMMEND. #9 Date: 11-9-90

Job Name: Bldg. 1303 Lab ID#: 11805

Job No.: 1238-89-023 Client Sample ID#: 2

Gross Sample Description: Red 12"x12" Floor Tile / Adhesive

Fiber: Straight/Stiff _____ Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n±
1	1.550											
2	1.550											
3												
4												

Asbestos:	% 1	% 2	Other Fibrous Materials:	% 1	% 2	Non-Fibrous Materials:	% 1	% 2
Chrysotile			Fibrous Glass			Paint		
Amosite			Cellulose			Perlite		
Crocidolite			Synthetic			Binders	20	90
Tremolite			Cotton			Plaster/Masonry		
Anthophyllite			Other			Bitumen		
Actinolite			Other			Other Aggregate	80	10
Total % Asbestos	ND	ND	Total % of Other Fibrous Material	0%	0%	Total % of Non-Fibrous Material	100%	100%

Comments: 1 = Tile 2 = Adhesive ND : None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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BULK SAMPLE
CHAIN OF CUSTODY RECORD

PROJ. #	PROJ. NAME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
89-023	Amend #9 FMWTC	S Swing	11/7	PM	Keene Field
FACILITY		RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
~~[illegible]~~ Bldg 1309					
SAMPLER(S)	**DATE TAKEN**	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
S Swing	11/7/90				

SAMPLE #	HOMOGENEOUS AREA	MATERIAL TYPE	LAB NUMBER	DATE ANALYZED	ANALYSTS INITIALS	ASBESTOS +	ASBESTOS N/D	ARCHIVE NUMBER	DATE ARCH	ARCHIVER INITIALS	SPECIAL INSTRUCTIONS
01		P	11807	11-10-90	ST		/	11807-11808			Fire Brick
02		P	11808	↓	↓		/	11-10-90			" "
									ST		

MATERIAL TYPES

A - < 4" Pipe Fitting
B - 4-8" Pipe Fitting
C - 9-14" Pipe Fitting
D - > 14" Pipe Fitting
E - < 4" Pipe
F - 4-8" Pipe
G - 9-14" Pipe
H - > 14" Pipe
I - Spray-On/Trowel
J - Floor Tile
K - Tanks/Boiler
L - A.H.U. Insul.
M - A.H.U. Exp. Jt.
N - Ceiling/Wall Tile
O - Fiberboard
P - Other (See notes - Front or back)

ALL SAMPLES WILL BE DISPOSED OF NINETY DAYS AFTER ANALYSIS UNLESS OTHERWISE REQUESTED

147

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammendment#9 Date: 11- -90

Job Name: Bldg.1309 Lab ID#: 11807

Job No.: 1238-89-023 Client Sample ID#: 01

Gross Sample Description: Fire Brick

Fiber: Straight/Stiff _____ Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n⊥
1	1.550											
2	1.550											
3												
4												

sbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass		Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	10
Tremolite		Cotton		Plaster/Masonry	40
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Aggregate	50
Total % Asbestos	ND	Total % of Other Fibrous Material	0%	Total % of Non-Fibrous Material	100%

Comments: ND - None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammendment#9 Date: 11-10-90

Job Name: Bldg.1309 Lab ID#: 11808

Job No.: 1238-89-023 Client Sample ID#: 02

Gross Sample Description: Fire Brick

Fiber: Straight/Stiff _____ Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n⊥
1	1.550											
2	1.550											
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass		Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	10
Tremolite		Cotton		Plaster/Masonry	40
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Aggregate	50
Total % Asbestos	ND	Total % of Other Fibrous Material	0%	Total % of Non-Fibrous Material	100%

Comments: ND: None Detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

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BULK SAMPLE

CHAIN OF CUSTODY RECORD

PROJ. #	PROJ. NAME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
89-023	Ammend #9 FMWTC	Spivey	11/7	PM	Keene Fleck
FACILITY		RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
1310					
SAMPLER(S)	**DATE TAKEN**	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Spivey	11/7/90				

SAMPLE #	HOMOGENEOUS AREA	MATERIAL TYPE	LAB NUMBER	DATE ANALYZED	ANALYSTS INITIALS	ASBESTOS +	ASBESTOS N/D	ARCHIVE NUMBER	DATE ARCH	ARCHIVER INITIALS	SPECIAL INSTRUCTIONS
01		P	11806	11-9-90	KF		✓	89-023-11806			Fire Brick
								11-9-90			
								Keene Fleck			

MATERIAL TYPES

A - < 4" Pipe Fitting
B - 4-8" Pipe Fitting
C - 9-14" Pipe Fitting
D - > 14" Pipe Fitting
E - < 4" Pipe
F - 4-8" Pipe
G - 9-14" Pipe

I - Spray-On/Trowel
J - Floor Tile
K - Tanks/Boiler
L - A.H.U. Insul.
M - A.H.U. Exp. Jt.
N - Ceiling/Wall Tile
O - Fiberboard

P - Other (See notes - Front or back)

ALL SAMPLES WILL BE DISPOSED OF NINETY DAYS AFTER ANALYSIS UNLESS OTHERWISE REQUESTED

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Ammendment#9 Date: 11-9-90

Job Name: Bldg.1310 Lab ID#: 11806

Job No.: 1238-89-023 Client Sample ID#: 01

Gross Sample Description: Fire Brick

Fiber: Straight/Stiff _____ Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n±
1	1.550											
2	1.550											
3												
4												

Asbestos:	%	Other Fibrous Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass		Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders (soot)	10%
Tremolite		Cotton		Plaster/Masonry	60%
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other quartz	30%
Total % Asbestos	N/D	Total % of Other Fibrous Material		Total % of Non-Fibrous Material	100%

Comments: N/D - None detected

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Kevin Fleck

Laboratory QA/QC Director: Clint Gilbert

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BULK SAMPLE

CHAIN OF CUSTODY RECORD

PROJ. #	PROJ. NAME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
89-023	FMWTC Amend #9	Tim Spivey	10/23	Am	Steve Thompson
FACILITY		RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Bldg 1351					
SAMPLER(S)	**DATE TAKEN**	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
T. Spivey	10/16/90				

SAMPLE #	HOMOGENEOUS AREA	MATERIAL TYPE	LAB NUMBER	DATE ANALYZED	ANALYSTS INITIALS	ASBESTOS +	ASBESTOS N/D	ARCHIVE NUMBER	DATE ARCH	ARCHIVER INITIALS	SPECIAL INSTRUCTIONS
1351-01		P	11573	10-23-90	ST	✓		11573			Wall Insul.
								10-23-90			
									ST		

MATERIAL TYPES

A - < 4" Pipe Fitting
B - 4-8" Pipe Fitting
C - 9-14" Pipe Fitting
D - > 14" Pipe Fitting
E - < 4" Pipe
F - 4-8" Pipe
G - 9-14" Pipe
H - > 14" Pipe
I - Spray-On/Trowel
J - Floor Tile
K - Tanks/Boiler
L - A.H.U. Insul.
M - A.H.U. Exp. Jt.
N - Ceiling/Wall Tile
O - Fiberboard
P - Other (See notes - Front or back)

ALL SAMPLES WILL BE DISPOSED OF NINETY DAYS AFTER ANALYSIS UNLESS OTHERWISE REQUESTED

147

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Mt. Pleasant, South Carolina 29464
(803) 884-0005 FAX: (803) 881-6149

ASBESTOS BULK SAMPLE ANALYSIS*

lient: FMWTC #9 Date: 10-23-90

Job Name: Building 1351 Lab ID#: 11573

Job No.: 1238-89-023 #9 Client Sample ID#: 1351-01

Gross Sample Description: WALL INSULATION

Fiber: Straight/Stiff 3 Bundular 2 Regular 1
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Angle of Extinction: Parallel	Angle of Extinction: Oblique	Angle of Extinction: Rolling	Angle of Extinction: Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n∥	Dispersion Staining n⊥
1 Synthetic	1.550	✓	✓	high		✓			—	—	—	—
2 Chrysotile	1.550		✓	low	✓				✓		Magenta	blue
3 Amosite	1.680		✓	mod		✓			✓		Dark yellow	blue
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile	10	Fibrous Glass		Paint	
Amosite	2	Cellulose		Perlite	
Crocidolite		Synthetic	85	Binders	3
Tremolite		Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other	
Total % Asbestos	12%	**Total % of Other Fibrous Material**	85%	**Total % of Non-Fibrous Material**	3%

Comments: Some synthetic fibers are opaque in form

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

Note: The results pertain only to the sample identification above. The sample may not be fully representative of the larger material in question. Member of NVLAP (National Voluntary Laboratory Accreditation Program). This sheet may not be reproduced except with permission from Westinghouse Environmental & Geotechnical Services, Inc.

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BULK SAMPLE

CHAIN OF CUSTODY RECORD

PROJ. #	PROJ. NAME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
89-023	FMWTC Ammend #9	Tim Spivey	10/23	4pm	ST
FACILITY		RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Bldg 1715					
SAMPLER(S)	**DATE TAKEN**	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
T. Spivey	10/16/90				

SAMPLE #	HOMOGENEOUS AREA	MATERIAL TYPE	LAB NUMBER	DATE ANALYZED	ANALYSTS INITIALS	ASBESTOS +	ASBESTOS N/D	ARCHIVE NUMBER	DATE ARCH	ARCHIVER INITIALS	SPECIAL INSTRUCTIONS
1715-01		I	11649	10-28-90	ST	<1%		11649-11651			Plaster Ceiling
1715-02		I	11650	↓	↓	<1%			10-28-90		"
1715-03		I	11651	↓	↓	<1%			ST		"

MATERIAL TYPES

A - < 4" Pipe Fitting
B - 4-8" Pipe Fitting
C - 9-14" Pipe Fitting
D - > 14" Pipe Fitting
E - < 4" Pipe
F - 4-8" Pipe
G - 9-14" Pipe
H - > 14" Pipe

I - Spray-On/Trowel
J - Floor Tile
K - Tanks/Boiler
L - A.H.U. Insul.
M - A.H.U. Exp. Jt.
N - Ceiling/Wall Tile
O - Fiberboard

P - Other (See notes - Front or back)

ALL SAMPLES WILL BE DISPOSED OF NINETY DAYS AFTER ANALYSIS UNLESS OTHERWISE REQUESTED

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-28-90

Job Name: BUILDING 1715 Lab ID#: 11649

Job No.: 1238-89-023 #9 Client Sample ID#: 1715-01

Gross Sample Description: PLASTER CEILING

Fiber: Straight/Stiff 1 Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation —	Dispersion Staining n =	Dispersion Staining n⊥
1 Tremolite	~~1.550~~ 1.605		✓	high		✓			✓		yellow	Magenta
2	1.550											
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass		Paint	
Amosite		Cellulose		Perlite	
Crocidolite		Synthetic		Binders	12
Tremolite	<1	Cotton		Plaster/Masonry	
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Aggregate	88
Total % Asbestos	<1%	Total % of Other Fibrous Material	0%	Total % of Non-Fibrous Material	100%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Gilbert

Note: The results pertain only to the sample identification above. The sample may not be fully representative of the larger material in question. Member of NVLAP (National Voluntary Laboratory Accreditation Program). This sheet may not be reproduced except with permission from Westinghouse Environmental & Geotechnical Services, Inc.

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-28-90

Job Name: BUILDING 1715 Lab ID#: 11650

Job No.: 1238-89-023 #9 Client Sample ID#: 1715-02

Gross Sample Description: PLASTER CEILING

Fiber: Straight/Stiff _____ Bundular _____ Regular _____
Morphology: Shredded/Irregular _____ Heliptical _____ Other _____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation −	Dispersion Staining n =	Dispersion Staining n⊥
1 Cellulose	1.550		✓	Mod.			✓		✓		yellow	blue
2 Tremolite	~~1.550~~ 1.605		✓	High		✓			✓		yellow	blue
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass		Paint	
Amosite		Cellulose	4	Perlite	
Crocidolite		Synthetic		Binders	6
Tremolite	<1	Cotton		Plaster/Masonry	70
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Aggregate	20
Total % Asbestos	<1%	Total % of Other Fibrous Material	4%	Total % of Non-Fibrous Material	96%

Comments:

*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

Laboratory QA/QC Director: Clint Lillbert

Note: The results pertain only to the sample identification above. The sample may not be fully representative of the larger material in question. Member of NVLAP (National Voluntary Laboratory Accreditation Program). This sheet may not be reproduced except with permission from Westinghouse Environmental & Geotechnical Services, Inc.

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ASBESTOS BULK SAMPLE ANALYSIS*

Client: FMWTC Date: 10-28-90
Job Name: BUILDING 1715 Lab ID#: 11651
Job No.: 1238-89-023 #9 Client Sample ID#: 1715-03

Gross Sample Description: PLASTER CEILING

Fiber: Straight/Stiff 2 Bundular ____ Regular ____
Morphology: Shredded/Irregular ____ Heliptical 1 Other ____

Fiber Type	Refrac. Index Liquid	Pleochroism Yes	Pleochroism No	Bire-fringence	Extinction Parallel	Extinction Oblique	Extinction Rolling	Extinction Isotropic	Sign of Elongation +	Sign of Elongation —	Dispersion Staining n =	Dispersion Staining n⊥
1 Cellulose	1.550		✓	Med.			✓		✓		yellow	blue
2 Tremolite	~~1.550~~ 1.605		✓	high		✓			✓		yellow	blue
3												
4												

Asbestos:	%	Other Materials:	%	Non-Fibrous Materials:	%
Chrysotile		Fibrous Glass		Paint	
Amosite		Cellulose	6	Perlite	
Crocidolite		Synthetic		Binders	4
Tremolite	<1	Cotton		Plaster/Masonry	70
Anthophyllite		Other		Bitumen	
Actinolite		Other		Other Aggregate	20
Total % Asbestos	<1%	Total % of Other Fibrous Material	6%	Total % of Non-Fibrous Material	94%

Comments:

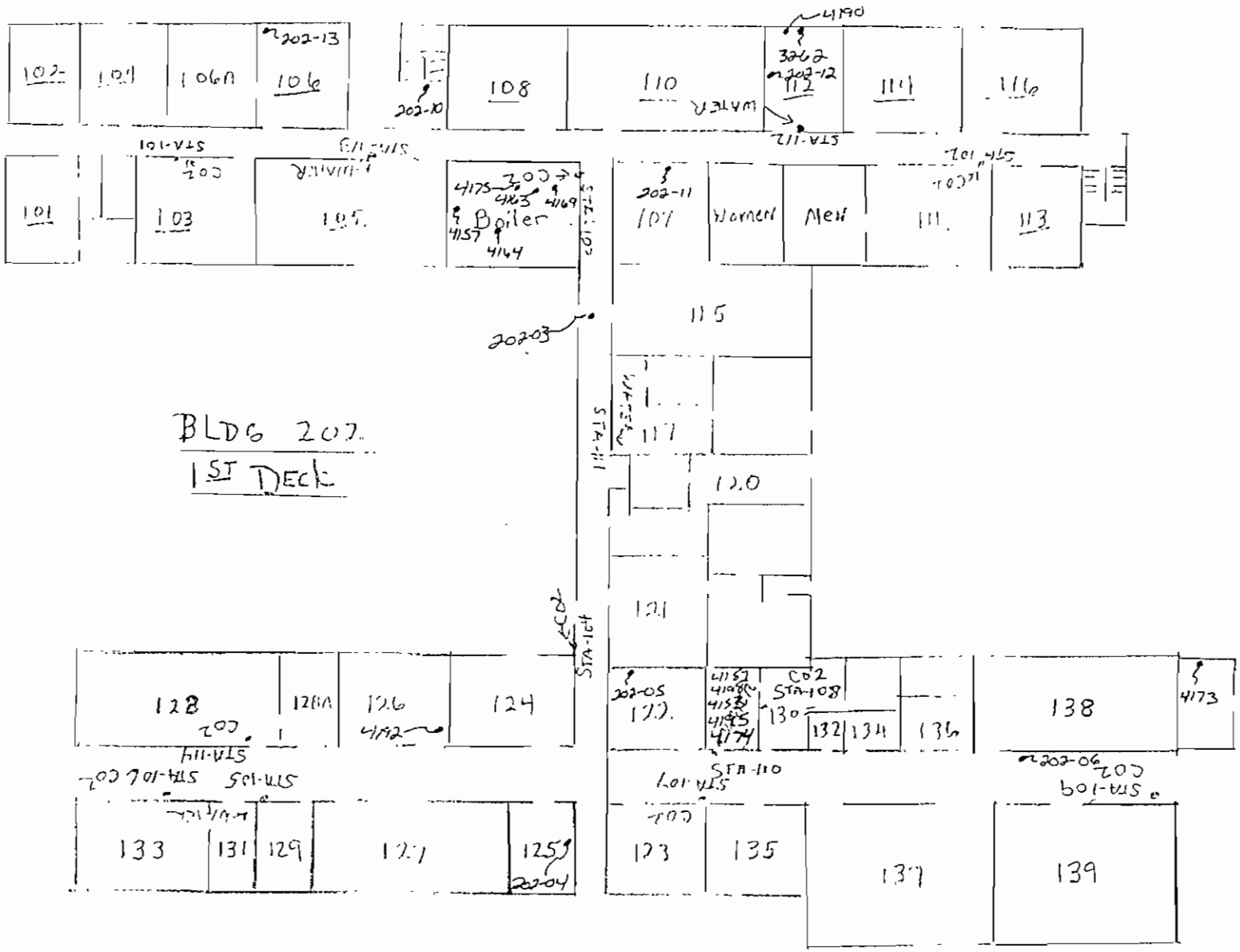
*Polarized Light Microscopy coupled with dispersion staining is the technique used for identification. The percentage of each component is visually estimated.

Analyzed by: Steve Thompson

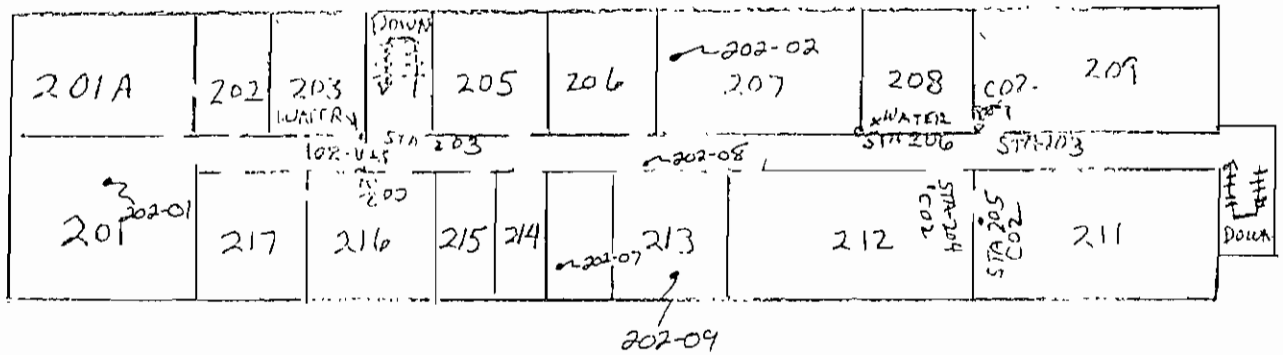
Laboratory QA/QC Director: Clint Gilbert

Note: The results pertain only to the sample identification above. The sample may not be fully representative of the larger material in question. Member of NVLAP (National Voluntary Laboratory Accreditation Program). This sheet may not be reproduced except with permission from Westinghouse Environmental & Geotechnical Services, Inc.

DRAWINGS



SCALE: NTS	DATE:	Westinghouse Environmental and Geotechnical Services, Inc.	TITLE: Building 202 Sample Locations
	JOB NO.: 1238-89-023		

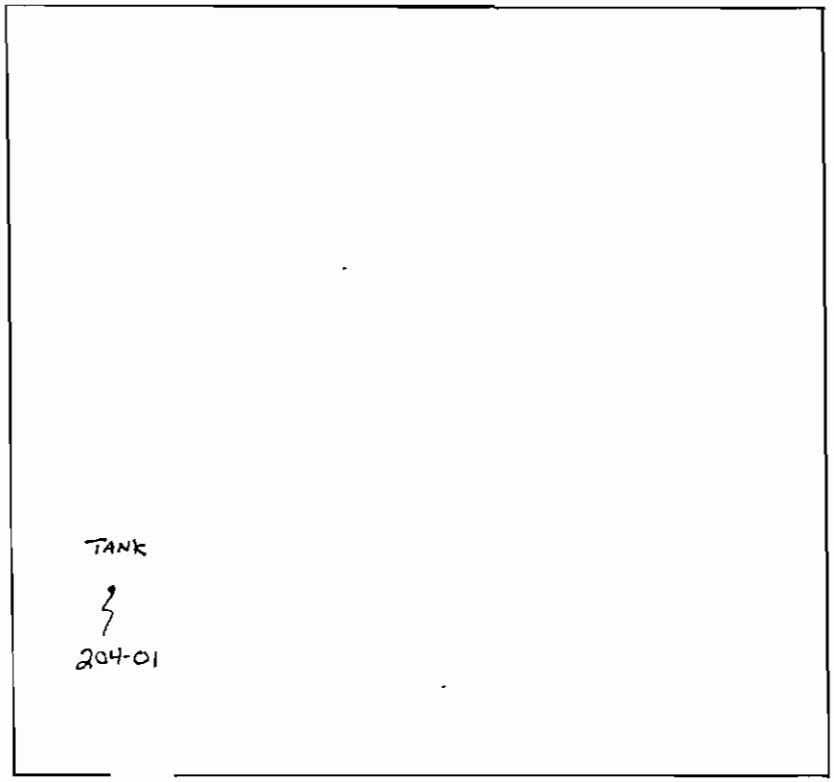


BLDG 202

2nd DECK

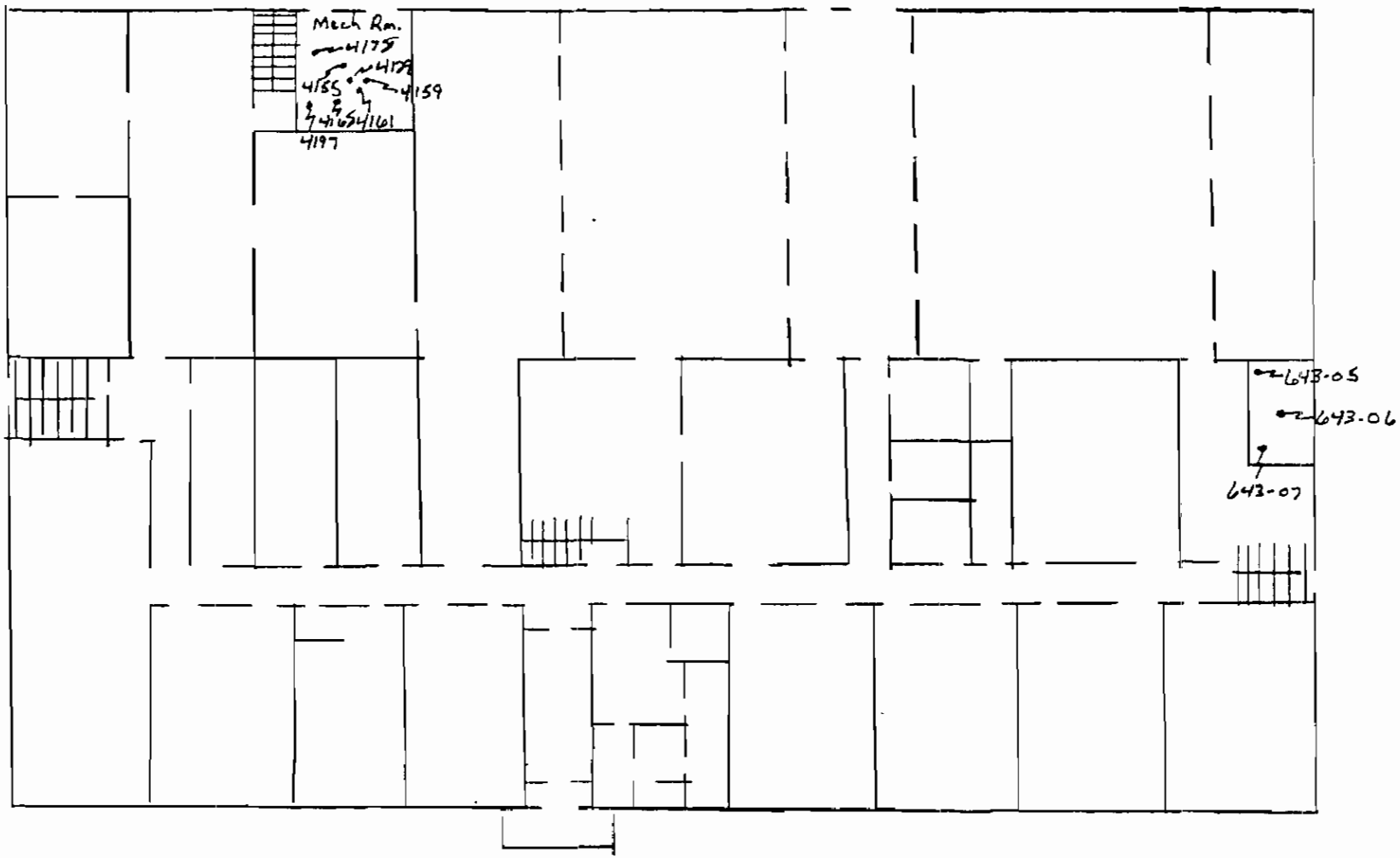
SCALE: NTS	DATE:	Westinghouse Environmental and Geotechnical Services, Inc.	TITLE: Building 202 Sample Locations
	JOB NO.: 1238-89-023 #9		

154E



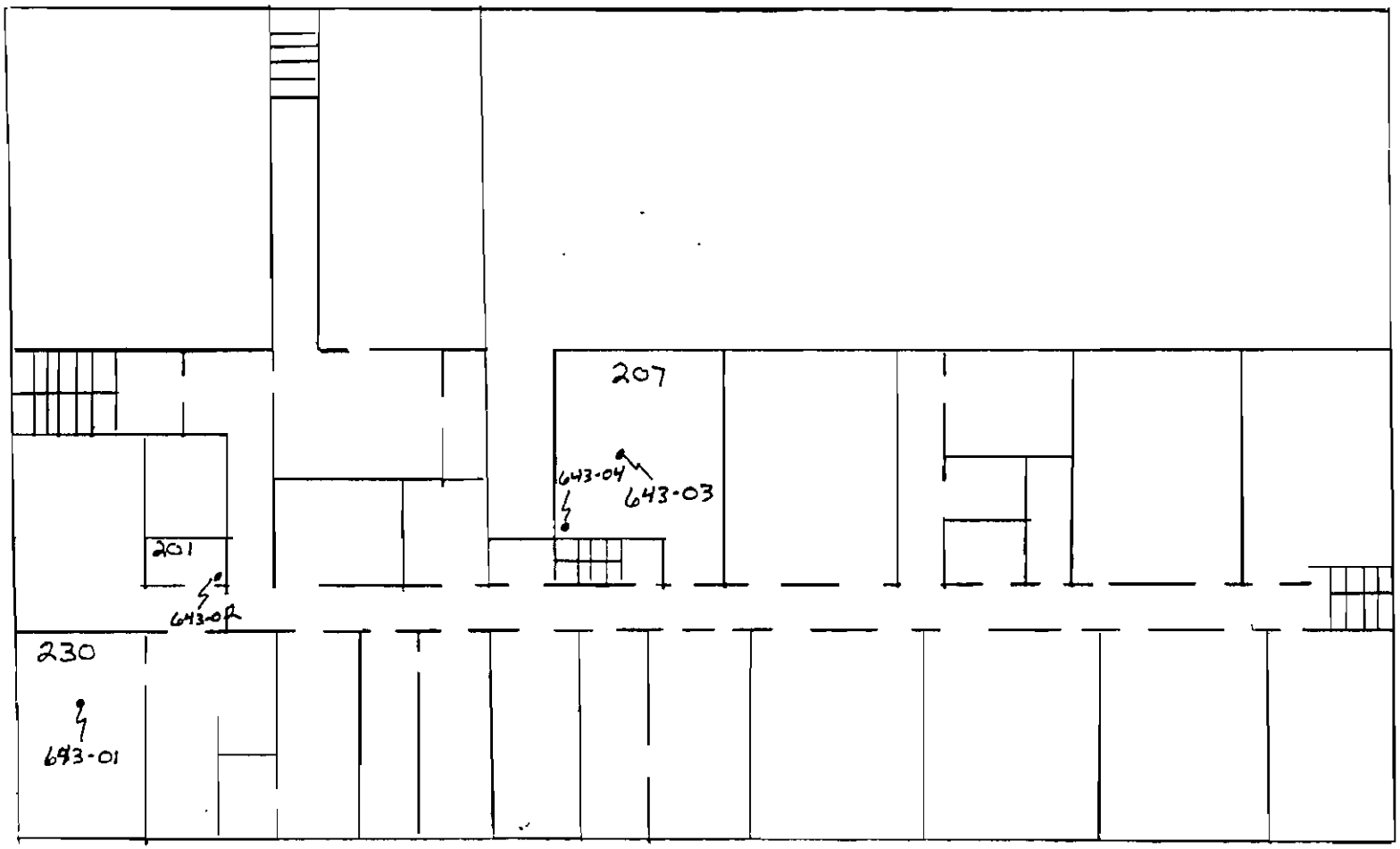
SCALE: NTS	DATE: JOB NO.: 1238-89-023	Westinghouse Environmental and Geotechnical Services, Inc.	TITLE: Building 204 Sample Location

154E



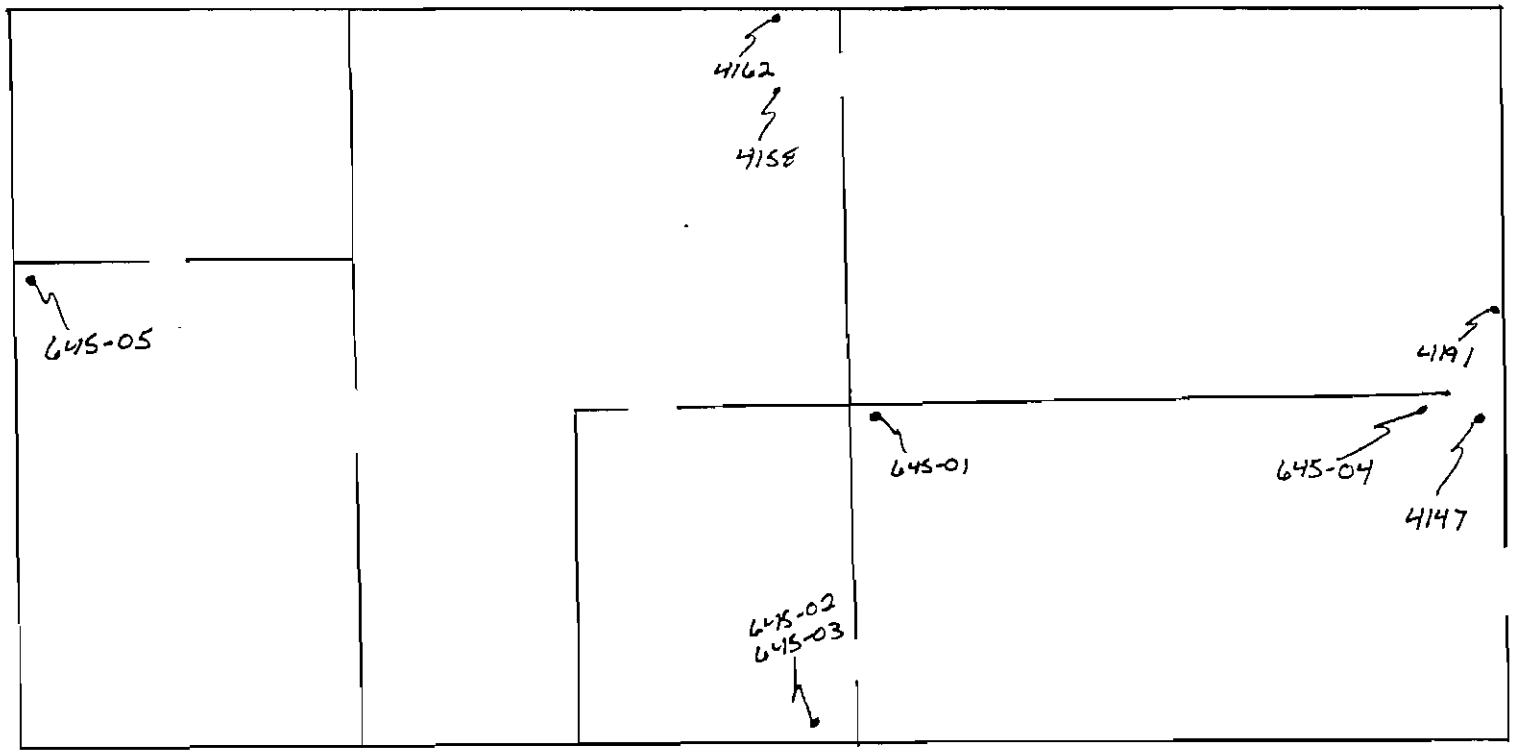
SCALE: NTS	DATE: JOB NO.: 1238-89-023	Westinghouse Environmental and Geotechnical Services, Inc.	TITLE: Building 643 First Floor Sample Locations

154E



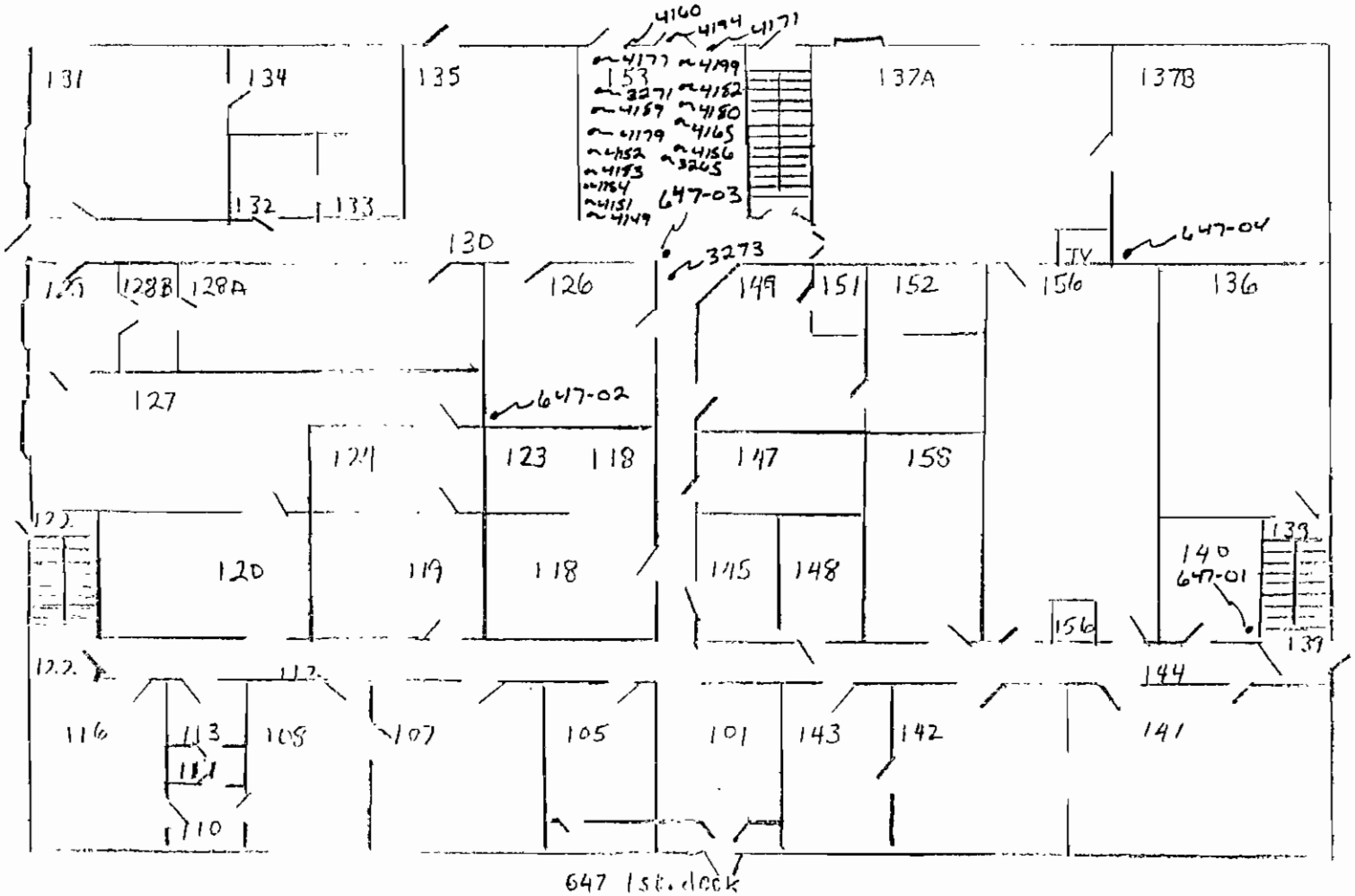
SCALE: NTS	DATE: JOB NO.: 1238-89-023	Westinghouse Environmental and Geotechnical Services, Inc.	TITLE Building 643 Second Floor Sample Locations

154E



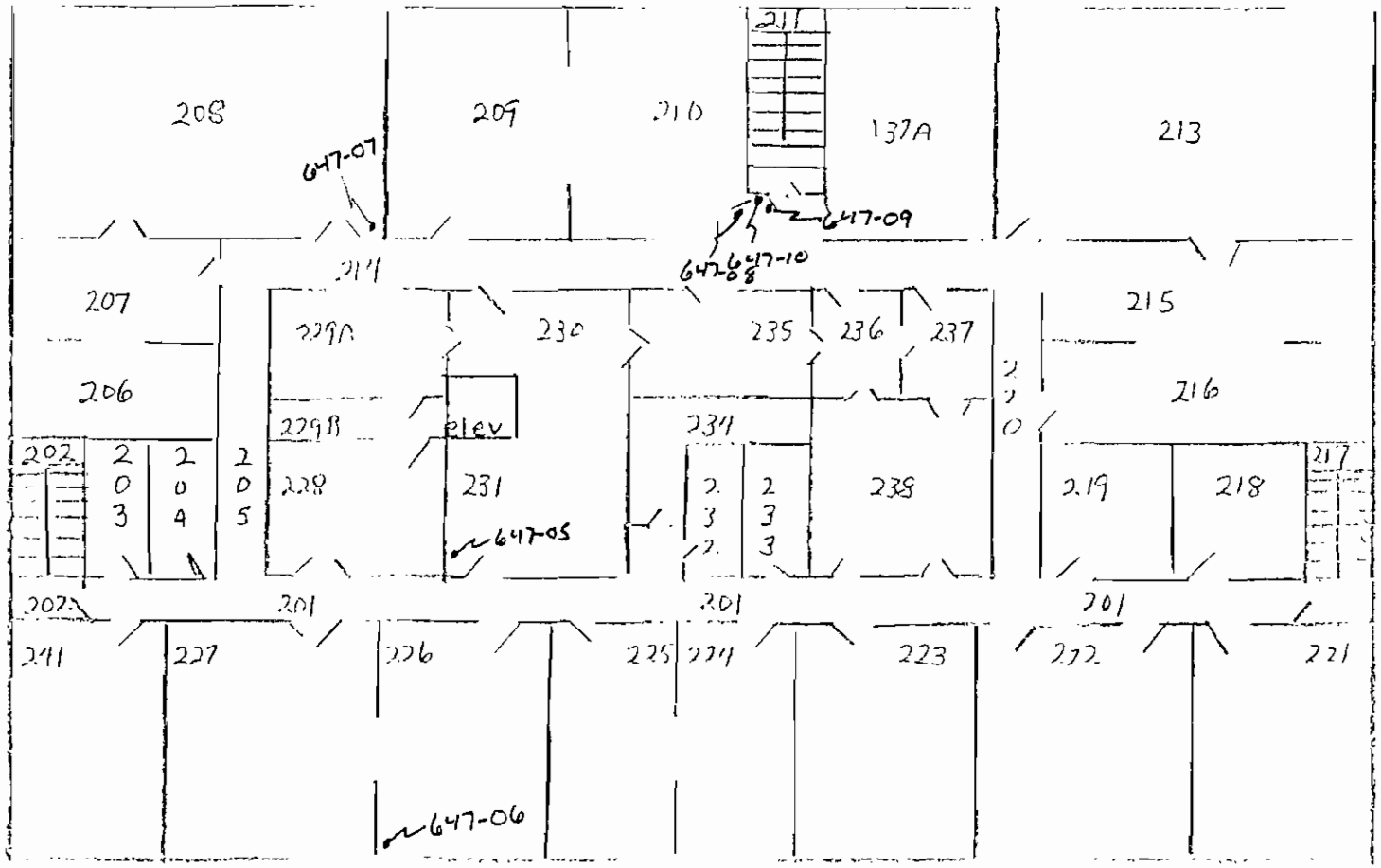
SCALE: NTS	DATE: JOB NO.: 1238-89-023	Westinghouse Environmental and Geotechnical Services, Inc.	TITLE: Building 645 Sample Locations

154E



SCALE: NTS	DATE:	Westinghouse Environmental and Geotechnical Services, Inc.	TITLE: Bldg 647 Sample Locations
	JOB NO.: 1238-89-023 #9		

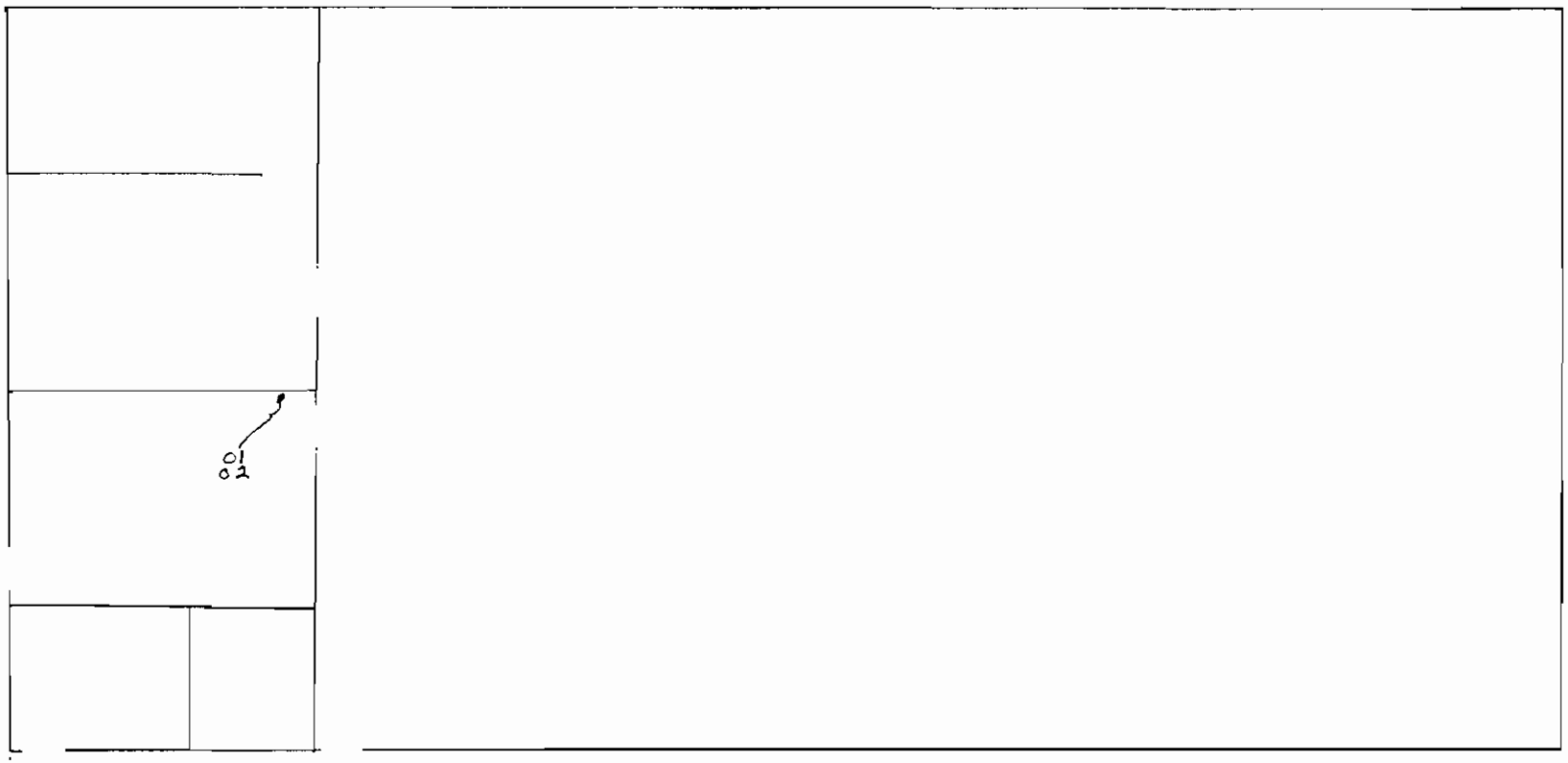
154E



647 2nd deck

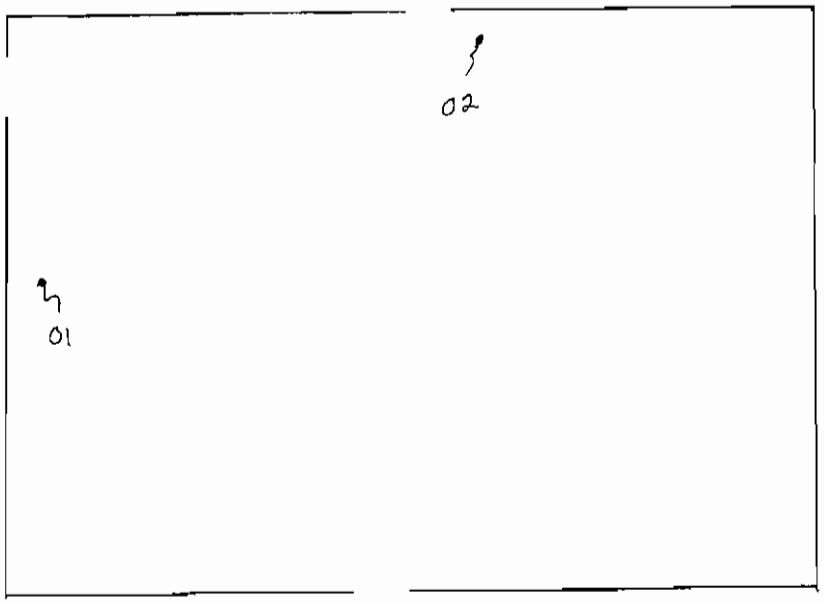
SCALE: NTS	DATE:	Westinghouse Environmental and Geotechnical Services, Inc.	TITLE:
	JOB NO.: 1238-S7 023 #19		Bldg. 647 Sample Locations

154E



SCALE: NTS	DATE: JOB NO.: 1238-89-023 #9	Westinghouse Environmental and Geotechnical Services, Inc.	TITLE: Building 1303 Sample Locations

154E



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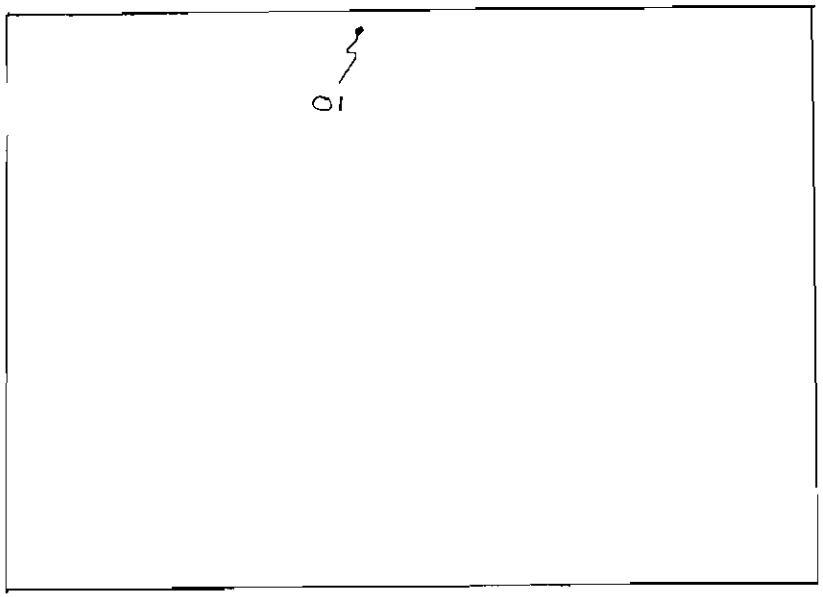
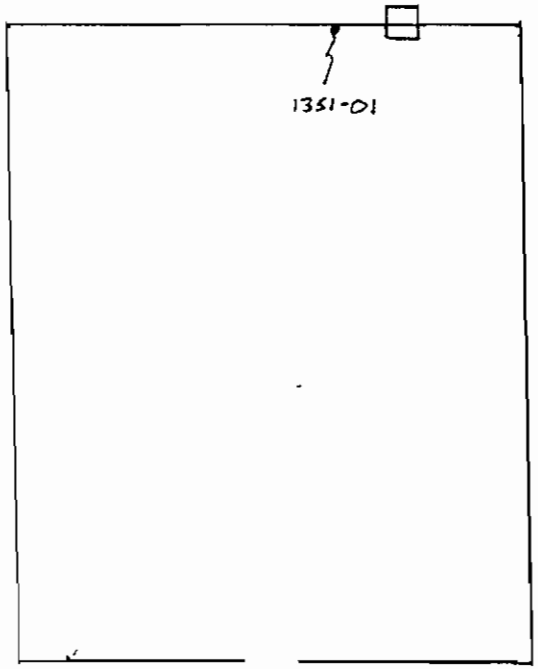
154E



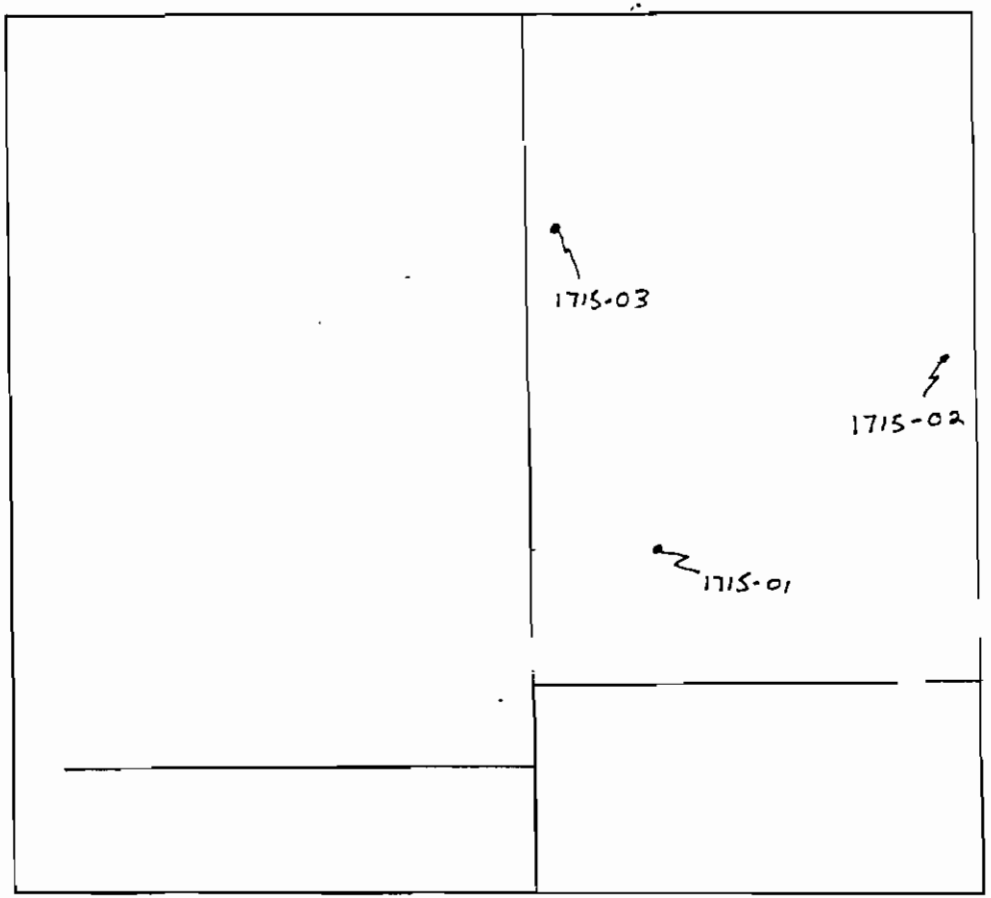
SCALE: NTS	DATE: JOB NO.: 1238-89-023 #9	Westinghouse Environmental and Geotechnical Services, Inc.	TITLE: Building 1310 Sample Location

154E



SCALE: NTS	DATE: JOB NO.: 1238-89-023	Westinghouse Environmental and Geotechnical Services, Inc.	TITLE: Building 1351 Sample Location

154E



SCALE: NTS	DATE: JOB NO.: 1238-89-023	Westinghouse Environmental and Geotechnical Services, Inc.	TITLE: Building 1715 Sample Locations

154E