PLAINTIFF'S EXHIBIT

UC-1907

DEMO - NON-F. - ACM
TACB REG. 6
FLOOR TILE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

NOV 21 1990

RECEIVED
DEC 17 1990
Region 4
Texas Air Control Board

Mr. Melvin Lewis
Director of Region 8
Texas Air Control Board
6421 Camp Bowie Blvd., Suite 312
Fort Worth, Texas 76116

Dear Mr. Lewis:

This is in response to the list of written questions that you and representatives of the City of Fort Worth, Air pollution Control submitted during our meeting on May 16, 1990, reflecting your concerns about unresolved issues which you have identified in implementing and enforcing the National Emission Standards for Hazardous Air Pollutants (NESHAP) for asbestos demolition/renovation activity.

We have completed our detailed response to each question, which represents the concerted position of EPA on each issue and is enclosed along with supporting documentation. Because many of the questions were previously addressed in our response letter, dated May 31, 1990, to Ms. Jeanne Philquist, Director of the Texas Air Control Board's Compliance Division, several of our enclosed responses reference it as part or all of the respective answer and should be reviewed in that context accordingly.

Although there was some anticipation and considerable delay in getting this information to you, I trust that you find the enclosed clarification(s) will strengthen our combined efforts toward achieving improved compliance with the NESHAP for asbestos.

If we can be of additional assistance or if you have other questions on the enclosure, please contact Martin E. Brittain, P.E. or his supervisor, Donna M. Ascenzi, of my staff at (214) 655-7223.

Sincerely yours,

Original Signed By:

John R. Hepola
Chief
Air Enforcement Branch (6T-E)

Enclosures

BRA 2599

cc: Ms. Jeanne Philquist
Director of Compliance Division
Texas Air Control Board

Mr. Gerald Bearden
Air Pollution Control Program
Environmental Health Division
Fort Worth Public Health Department

BRA 2600

- ENCLOSURE -

U.S. EPA - Region 6 Response
To
Asbestos NESHAP Issues & Concerns
of Texas Air Control Board

I. FLOOR TILE ISSUE

1 QUESTION (Q). Can a facility that contains nonfriable asbestos floor tile be demolished by a bull dozer or wrecking ball without wetting?

1 RESPONSE (R). Yes, a facility containing nonfriable asbestos resilient/vinyl floor tile can be demolished by a bull dozer, wrecking ball or other methods without wetting the tile or demo debris. EPA has identified nonfriable resilient floor tile, asphaltic (tar) roofing materials, packings and gaskets, which contain more than 1% asbestos, as materials that will not release significant amounts of asbestos fibers when disturbed during demolition. Demolition by burning is allowed provided all asbestos containing materials (ACM) are removed before the demolition.

If the nonfriable asbestos floor tile is to be subjected to sanding, grinding, abrading or other practices that will crumble, pulverize or reduce it to powder for other reasons during the demolition, such operations are subject to the asbestos NESHAP requirements, including wetting. EPA does not consider the normal use of a bull dozer or wrecking ball for demolition, however, to constitute "sanding, grinding, abrading, etc." regarding the nonfriable floor tile. If the floor tile is already friable asbestos material (FAM), it must be handled in accordance with the applicable asbestos NESHAP. Please refer to Region 6's response letter, dated May 31, 1990, to Ms. Jeanne Philquist of the TACB (Re: Issue 4 Response & its supporting Exhibits) for additional clarification.

2Q. Can a facility that contains nonfriable asbestos floor tile be demolished by implosion?

2R. Yes, a facility containing nonfriable asbestos resilient/vinyl floor tile can be demolished by implosion without having to comply with the NESHAP requirements for removal, wetting and disposal of the floor tile. Ditto 1R.

3Q. Would the demolition waste have to be wetted in storage?

3R. No, provided the methods of demolition did not damage the nonfriable asbestos floor tile such that it was crumbled, pulverized or reduced to powder; but yes if the floor tile was damaged as described and the project total of all FAM, including the damaged floor tile, exceeded the threshold exemption limits of at least 260 linear feet (ft) on pipes or 160 sq ft on other facility

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components, as specified in 40 CFR, §61.145. See 1R and 2R.

4Q. Would the demolition waste have to be disposed of in a landfill authorized to accept asbestos containing waste materials?

4R. Ditto 3R. Also refer to Issue 5 Response of Region 6's letter to TACB dated 05/31/90, identified in 1R above.

5Q. Can friable asbestos floor tile be removed by heat without wetting or other controls?

5R. When the project total of all FAM being removed and/or disturbed during the demo/reno operation exceeds the threshold exemption limits of at least 260 linear ft on pipes or 160 sq ft on other facility components, the stripping/removal of friable asbestos floor tile by heat (as well as all other FAM stripping) is required to comply with the NESHAP requirements for "adequate wetting" during stripping under §61.147. When the project total of all FAM being removed is less than the threshold exemption limits, however, the NESHAP requirements for wetting DO NOT apply to stripping FAM by any method.

6Q. If, in removing nonfriable floor tile, some become broken, are they then friable?

6R. Region 6 has previously addressed this issue/question in its letter to TACB dated 05/31/90. (See Issue 4 Response of 05/31/90.) The following additional clarification is provided in conjunction with the previous response. This question is understood to be about the removal of nonfriable resilient floor tile containing more than 1% asbestos. Nonfriable floor tile does not become friable (FAM) when broken during removal. Nonfriable floor tile (tile) can be broken without releasing significant quantities of airborne asbestos fibers. It is only when the removal methods employed subject the tile to sanding, grinding or abrading or cause the tile to be crumbled, pulverized or reduced to powder that significant asbestos fiber release is then greatly increased. Such methods applied to tile and/or its removal are then subject to asbestos NESHAP requirements for FAM removal.

As indicated in a previous determination, EPA considers the deliberate sanding, grinding, or abrading (including drilling, sawing, and chipping) of all nonfriable asbestos materials (nonFAM), including resilient asbestos floor tile, asphalt roofing material, packings and gaskets, as being subject to applicable NESHAP requirements for FAM removal/stripping. EPA defines grinding as reducing to powder or small fragments and includes mechanical chipping or drilling. Abrade is considered to mean scrape, rub, grind or wear away by friction, as defined by the dictionary.

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Floor tile removal methods, such as mechanical chipping or drilling, result in the tile being broken up into numerous small fragments and is, therefore, considered to be subject to the NESHAP provisions for FAM removal/stripping. Other removal methods for floor tile do not result in the tile being so severely damaged, such that release of asbestos fibers is minimal. Such methods include, but are not limited to, use of heat from heat guns or electric heat machines, use of infrared machinery, and use of dry ice or liquid nitrogen. These or other methods, when properly used to allow tile removal with a minimum of damage/breakage of tiles, do not result in FAM nor FAM removal that is subject to NESHAP.

7Q. If less than 160 sq ft become friable in a renovation, does NESHAP apply?

7R. When the aggregate total of all FAM being removed and/or disturbed during the renovation project exceeds the threshold exemption limits of at least 260 linear ft on pipes or 160 sq ft on other facility components, respective asbestos NESHAP standards apply for renovation activity. When the aggregate total of all FAM being removed and/or disturbed is less than the threshold exemption limits, the renovation project is not subject to any asbestos NESHAP requirements.

II. MASTIC ISSUE

8Q. Can a wet blast machine with a HEPA vacuum be use(d) to remove asbestos containing mastic?

8R. The response to this question is based on the following clarification as to what constitutes a "wet blast machine". Region 6 understands this question to be about the use of shot blasting equipment to remove (floor tile) mastic containing more than 1% asbestos and which is nonfriable. The shot blasting process involves propelling small steel shot against the flooring to remove mastic or other adhesive materials. The removal/stripping of nonfriable ACM (including floor tile mastic), using abrasive/ mechanical forces such as grinding, chipping, sanding or other abrasive methods, is subject to the asbestos NESHAP requirements for FAM removal/stripping. The shot blasting removal process results in the non-FAM (mastic) being crumbled, pulverized or reduced to powder and must, therefore, comply with all applicable asbestos NESHAP work practices for FAM stripping, especially including the requirement for adequate wetting. Please refer to the letter of EPA dated October 12, 1990, and its enclosures, which render an applicability determination on the use of shot blasting machines and is attached as Enclosure 2 for added clarification.

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9Q. In a demolition project, after the friable floor tile has been removed, does the mastic have to be removed if it is in good condition?

9R. Ditto 1R and 2R. The floor tile mastic, containing more than 1% asbestos that is in good condition and is nonfriable, is not required by NESHAP to be removed before demolition. Responses 1R and 2R for floor tile (above) also apply for mastic.

III. NOTIFICATION ISSUE

10Q. If a facility contains no asbestos, is notification required for demolition?

10R. Yes. NESHAP requires notification for demolition of any facility. See Issue 7 Response of Region 6's letter to TACB dated 05/31/90, which previously answered this question.

11Q. If a facility contains no friable asbestos, is notification required for demolition?

11R. Yes. Ditto 10R.

12Q. If a demo or reno project is under way before any asbestos is encountered, what are the proper steps for the owner/operator to take?

12R. The answer to this question was provided in Exhibits #6, #9, #13, #14, and #15 of Region 6's letter to TACB dated 05/31/90. The following summary response is provided.

The asbestos NESHAP requires that each facility/structure be inspected prior to its intended demolition or renovation and that an assessment of all affected asbestos-containing materials (ACM) for an aggregate total of all FAM and non-FAM that will become FAM during demo/reno be made. As required in §61.146(c)(3), the written notice of intent to demolish or renovate must include an estimate of the approximate amount of FAM present that will be disturbed/removed. If, after beginning a demo or reno project, the owner or operator finds the original estimate of FAM amount was inaccurate (due to discovery of other unknown FAM or non-FAM being made FAM), additional notification would be required, regardless of whether or not the source had initially submitted a timely notice. Where notice had already been submitted, additional notification would be required as early as possible (See Exhibit #6 identified above); but demo/reno operations may continue because notice had already been made that the operation was taking place. Where the initial notification had not been made, however,

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the demo/reno operation may have to be suspended until after timely written notification has been made.

13Q. Would they be in violation of the notification requirements?

13R. Ditto 12R. The following types of nonnotification would constitute non-compliance with the notice requirements of §61.146:

(i) For intended demolition, failure to timely submit the initial notice or amend the initial notice for additional FAM discovered during demo,

(ii) For intended renovation where the disturbed FAM exceeds the threshold exemption limits for FAM, failure to timely submit the initial notice or amend the initial notice for additional FAM discovered during reno, and

(iii) For intended renovation where the disturbed FAM is initially less than the threshold FAM exemption limits, failure to timely submit a notice when additional FAM is discovered during reno such that the aggregate total of all disturbed FAM exceeds the threshold FAM exemption limits.

IV. SIDING/TRANSITE ISSUE (The Responses provided to the Questions on this issue are based on the understanding that "siding/transite" means or refers to building materials containing more than 1% asbestos with cementitious binder(s) such as asbestos/cement (A/C) siding on a building, asbestos transite roofing shingles or building siding, asbestos concrete pipe, or other asbestos materials having binders similar to cement and which are considered nonfriable when unbroken and in good condition. In poor condition means that the binding of the material is losing its integrity as indicated by peeling, cracking or crumbling of the material."

14Q. Can asbestos siding be removed dry if they are not broken?

14R. Yes, nonfriable asbestos siding can be removed dry if it is not broken. This question was previously answered by the Issue 4 Response of Region 6's letter to TACB dated 05/31/90.

15Q. If removed dry and unbroken, is wetting required for storage before transporting to a landfill?

15R. No. As long as the nonfriable asbestos siding is unbroken, its storage, transporting, handling and disposal is not subject to any NESHAP requirement. This question was previously answered by the Issue 4 Response of Region 6's letter to TACB dated 05/31/90.

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16Q. Does the siding have to be disposed of in a landfill that is authorized to accept asbestos waste?

16R. No. Ditto 15R.

17Q. If some of the siding become broken, are they friable?

17R. Yes. When asbestos transite siding or A/C siding becomes broken, it is then considered by EPA to be friable or FAM. The surface area of each single sheet of A/C siding is considered to be FAM when it is broken, regardless of the number or size of the broken fragments.

18Q. If less than 160 sq ft of the siding become friable in a renovation, does NESHAP apply?

18R. Ditto 7R.

V. SPACKLING/JOINT COMPOUND ISSUE

19Q. How is the area (sq ft) of joint compound determined? (i.e., width of joints X height of wall X number of joints, or area of wall)

19R. Region 6 has previously answered this question in its letter to TACB dated 05/31/90. (See Issue 3 Response of 05/31/90 letter.)

20Q. Is wetting the wall and cutting out of (or) scraping the joint acceptable?

20R. Ditto 19R.

21Q. Is each layer (i.e., paint, joint compound, sheet rock) considered separately in determining the % asbestos (content); or, is the whole core sample considered? Layer?

21R. Ditto 19R. (See Issue 6 Response of 05/31/90 letter.)

VI. ENFORCEMENT POLICIES ISSUE (Dave Henrichs)

AQ. How can a field investigator determine if nonfriable (asbestos) material is in "good shape"? Is crushing with hand pressure the determining factor? Does EPA have a lab technique for determining if a material is friable or will become friable as stated in the February 23, 1990, policy?

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AR. Region 6 has previously addressed these questions in its letter to TACB dated 05/31/90, and its respective Issue 4 Response. Consistent with that response, additional clarification is provided in the following.

(i) EPA does not have a lab technique (nor test) prescribed for determining whether or not a material is friable or will become friable, other than (1) that which is prescribed by the standard's definition for friable asbestos material and (2) written applicability determinations/interpretations by EPA such as have been previously identified.

(ii) A determination of whether nonfriable asbestos material (nonFAM) is "in good condition" or is "in poor condition" should be based on the following. "In good condition" means that the binder(s) of such nonFAM (i.e., cement, asphalt, tar, glue, polymers of plastic or rubber, paint, etc.) has not deteriorated, but still retains adequate capacity, resilience and tenacity to maintain the structural integrity of the nonFAM such that it is not disintegrating or crumbling into many smaller particles or cannot be made so by application of hand pressure. "In poor condition", on the other hand, means that the binding of the nonFAM is losing or has lost its integrity, as indicated by peeling, cracking or crumbling of the nonFAM.

(iii) "Crushing with hand pressure" can be a factor in determining the "condition" of nonFAM or whether or not nonFAM has become FAM; but it is not the only factor as discussed in the following. The asbestos NESHAP standard currently defines FAM as a material, which, when dry, can easily be crumbled, pulverized, or reduced to powder using hand pressure. EPA considers the terms "pulverized" and "reduced to powder" to mean that the affected material is changed to particles, dust or powder that can become airborne. The term "crumbled" indicates that the affected material is easily (i.e., using hand pressure) broken into a large number of small pieces. Although dust is likely to be produced as a result of crumbling, it is possible that there are some types of materials that can be crumbled without producing dusts. EPA also considers that crumbling refers to an action that occurs essentially all in one effort and not to repeated attempts to crumble the material. For example, resilient floor tile in good condition can be broken by hand into few large pieces, but it is not easily broken by one effort into many small pieces. On the other hand, asbestos resilient floor tile, that has lost the integrity of its structural matrix and can be broken into many small pieces in one effort, is to be considered in poor condition and to have become FAM.

BQ. What is the definition of the word "abraded"? Does a bull dozer or hammer abrade or grind a material?

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BR. The word "abraded", as used in EPA's clarification of nonFAM becoming FAM, is considered to be defined as scraped, rubbed, ground (past tense of grind) or worn away by friction, and is the same definition given by Webster's dictionary. The weight and mechanical action of a bull dozer and its metal tracks traversing on A/C siding or transite during demolition would break up this kind of ACM such that it becomes friable. Normal use of a bull dozer for demolition purposes, however, is not considered by EPA to constitute abrasion or damage to nonfriable asbestos/resilient floor tile, asphalt roofing materials, packings and gaskets such that the activity would be subject to the NESHAP for asbestos. See 1R, 3R and 4R. The use of a hammer to break up material into many small pieces would be considered "chipping".

CQ. Who has the authority for making determinations on dry method removal techniques? If the TACB does, then will EPA stand behind our (TACB) decisions?

CR. Region 6 has previously addressed these questions in its letter to TACB of 05/31/90, and its respective Issue 2 Response. Consistent with that response, additional clarification is provided in the following.

(i) Authority has been delegated to the TACB for making the determination under the specific provisions of 40 CFR, §61.147(c), which provide only for renovation operations an alternative to the requirement that FAM be adequately wet during its stripping, when the "Administrator" (of EPA) determines that the required "wetting" would unavoidably damage equipment.

(ii) EPA-Region 6 is responsible for overview of its delegated states to ensure national consistency in the interpretation and application of NESHAP. To ensure EPA support in such TACB determinations, which should be in writing before the FAM stripping begins, TACB should coordinate and consult with Region 6 in making this kind of determination. EPA-Region 6 will support TACB determinations under §61.147(c), when found consistent with the standard's requirements and its interpretation by EPA. In this respect, a copy of each determination (i.e., NESHAP interpretation) made by the TACB should be sent to EPA-Region 6 pursuant to Condition 3 of the most recent Texas delegation agreement for NESHAP, which is dated December 28, 1982, and is Exhibit #4 of Region 6's letter to TACB of 05/31/90.

DQ. What is the policy on "adequately wetted"? Is visible emissions the determining factor?

DR. EPA defines "Adequately wet" to mean sufficiently mix or penetrate with liquid to prevent the release of particulates. When visible emissions are observed coming from an asbestos-containing

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material (ACM), then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wet. Water is the liquid that is most commonly used for repair/removal operations. A finding of dry dust/powder or particle fragments of FAM covering or coating surfaces of equipment, etc., following a demo/reno or FAM removal operation would constitute evidence that the FAM was not adequately wet. EPA will be issuing guidance for determining the adequately wet compliance status of ACM during demo/reno after the revisions of asbestos NESHAP, proposed on 01/10/89, are made effective. Additional clarification is provided in following.

(i) **Friable spray-on or wet-applied ACM** - Regarding friable spray-on ACM, such as the fire-proofing materials found on decking and support I-beams, the term "penetrate" should be understood to mean that the ACM is completely wetted throughout the material. Such materials/surfaces are normally easy to wet because of their cellulose binder for its asbestos components.

(ii) **Friable molded insulation or ACM** - With respect to friable molded insulation, such as "thermal-block" insulation (on pipes, boilers, etc.), ceiling tile applications, and asbestos cement products, the complete penetration of the ACM with a liquid (i.e., water) is not required. Only a <u>coating</u> or covering of water on the surface area of such ACM (i.e., spray, water misting) is preferred so that the ACM, which is being removed undisturbed, can be removed in an unimpaired condition. When pieces of molded insulation and ceiling tiles are broken during their removal, the dry surfaces of the exposed broken edges should be rewetted immediatly to reduce asbestos emissions. The use of wetting agents or surfactants is recommended to improve wetting ability for ACM.

EQ. According to the recent policy, floor tile, roofing material, packing, and gaskets must be inspected before demolition. Does this mean siding and transite type materials are not affected and do not need inspection; <u>or</u>, are these materials always friable?

ER. <u>No.</u> EPA's recent policy, regarding inspection of the four normally nonfriable ACM of floor tile, roofing material, packing and gaskets before demolition, does <u>not</u> mean that A/C (cementitious) siding and transite type materials are excluded from necessary inspection <u>nor</u> that such materials are always friable. <u>All</u> normally nonfriable ACM (including A/C siding and transite) should be inspected before demolition to determine whether or not it has become FAM, because all FAM is required by the asbestos NESHAP to be removed before demolition. If demolition is by burning, all ACM has to be identified and removed before the demo.

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(i) EPA/Region 6 cannot support any decisions/determinations of NESHAP that are in conflict or inconsistent with established EPA precedents.

(ii) As previously indicated, written decisions by EPA on NESHAP policy, interpretation and applicability will be provided to the TACB. When TACB interpretations are identified to be inconsistent or divergent with established EPA precedent, Region 6 will provide the necessary clarification for national consistency.

(iii) Where/when violations are identified or alleged by an EPA review and the alleged violator was informed differently by a TACB decision, such violations may or may not be resolved informally by the TACB to EPA's satisfaction. An answer to this question would have to be resolved on a case by case basis where respective circumstances of the allegations and NESHAP interpretation problems can be considered. Hopefully, TACB implementation of the response to the next question in HQ will insure that such situations do not occur.

HQ. How will asbestos removal questions on EPA policy be resolved? What time period for response to contractors is reasonable?

HR. Asbestos removal questions on EPA policy should be resolved through TACB consultation with EPA-Region 6 before responding to regulated sources about such matters. All such questions and their resolution should be documented in writing by TACB and Region 6. In this respect, TACB's response(s) to sources with such interpretations/determinations should be documented in writing with a copy to Region 6 pursuant to the current TACB delegation agreement. Additionally, the following protocol is provided:

(i) Questions/issues, which are not clearly governed by precedent established by EPA, should be referred to EPA-Region 6 in writing by TACB for resolution.

(ii) The TACB should consult with EPA-Region 6 on the proper response to each request for interpretation/applicability determination or policy question regarding NESHAP and document such consultation before responding directly to the requestor.

(iii) A copy of each NESHAP interpretation/determination that is made by the TACB should be sent to EPA-Region 6.

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wetted until it is collected for disposal. Visible emissions which occur during the waste collection procedure are evidence that the material was not adequately wetted and could result in EPA enforcement against the owners or operators involved in the project.

In your letter you have raised some valid points about alternative methods of removing floor tile mastic. Methods such as hand scraping and solvent removal may not be as effective as shot blasting at removing mastic. However, for renovation projects, the focus of the asbestos NESHAP is to control the release of asbestos fibers. Fiber release is controlled by adequately wetting the asbestos containing material during the removal process. The regulation does not present an alternative to wet methods except in very limited circumstances (i.e., temperature at the point of wetting is below 32° F or wetting will unavoidably damage equipment).

EPA is, however, currently in the process of developing the scope of comprehensive changes to be made to the asbestos NESHAP. The comprehensive changes are scheduled to be promulgated in 1992. As part of this scope, the Emission Standards Division (ESD) is examining methods of ACM removal, including dry process removals. I have sent the information you have provided on air sampling to ESD for their review.

EPA supports the investigation of new and improved methods of ACM removal, as long as those methods comply with the intent of the regulation. We would be happy to meet with you to further discuss issues relating to shot blasting. We would suggest that ESD and EPA's Office of Enforcement also attend any meeting at which we discuss compliance with the asbestos NESHAP.

If you have any questions, or wish to schedule a meeting please contact Scott Throwe of my staff at (202) 475-7002.

Sincerely,

John B. Rasnic, Acting Director
Stationary Source Compliance Division
Office of Air Quality Planning and Standards

Enclosure

BRA 2611

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

JUL 13 1990
4APT-AE

C. H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Fancy:

We are in receipt of your letter dated June 8, 1990, requesting clarification of the National EPA policy regarding removal of non-friable asbestos containing material. Specifically, you requested guidance concerning the use of the Hot Shot steel shot surface preparation system. We have consulted with EPA Headquarters concerning this matter and offer the following comments.

Non-friable material (including floor tile mastic) which is removed using abrasive forces such as grinding, sanding, sawing, shot blasting or other abrasive methods is subject to the asbestos NESHAP regulation. The shot blasting operation which you described causes non-friable asbestos material (mastic) to be crumbled, pulverized, o reduced to powder, and therefore asbestos NESHAP work practices must be followed. This means adequately wetting the non-friable material (mastic) before and during the shot blasting operation, keeping the shot blasted material adequately wet before collection, and disposin of the waste according to the requirements of the asbestos NESHAP regulation.

In brief, the shot blasting technique which you described is subject to the wetting requirements of the asbestos NESHAP regulation, and failure to wet during the blasting operation is considered a violation. If you have any questions concerning this matter please contact Alan Powell at 404/347-5014.

Sincerely yours,

Jewell A. Harper, Chief
Air Enforcement Branch
Air, Pesticides and Toxics
Management Division

BRA 2612

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP 21 1990

MEMORANDUM

OFFICE OF
AIR AND RADIATION

SUBJECT: Applicability Determination on the Use of Shot Blasting Machines

FROM: John B. Rasnic, Acting Director
Stationary Source Compliance Division (EN-341)
Office of Air Quality Planning and Standards

TO: William A. Spratlin, Director
Air and Toxics Division
Region VII

This is in response to a Region VII request for an applicability determination on the use of shot blasting equipment to remove mastic containing asbestos. Members of your staff and the Missouri Department of Natural Resources (Missouri DNR) recently observed a demonstration of this equipment and have provided us with their comments. We have also discussed this asbestos removal technique with Region IV where similar requests have been made to use this process. A recent determination made by Region IV on shot blasting is attached.

The process of shot blasting involves a system which propels small steel shot towards the floor to remove mastic or other adhesive materials. As stated in the Region IV determination, nonfriable material (including floor tile mastic) which is removed using abrasive forces such as grinding, sanding or other abrasive methods, is subject to the asbestos NESHAP regulation. The shot blasting operation would cause nonfriable asbestos material (mastic) to be crumbled, pulverized, or reduced to powder, and therefore, asbestos NESHAP work practices must be followed. This means adequately wetting the nonfriable material (mastic) before and during the shot blasting operation, keeping the shot blasted material adequately wet before collection, and disposing of the waste according to the requirements of the asbestos NESHAP. The regulation does not allow for an alternative to wet methods except under very limited circumstances, which are not met in this situation.

In their comments, the Missouri DNR noted that the shot blasting equipment used in the Region VII demonstration is not approved by the manufacturer for operation on wet surfaces. However, during the demonstration, the equipment was operated on both wet and dry surfaces. During the wet process removal, both

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the Missouri DNR and Region VII staff commented that despite wetting the floor, the waste material was dry and visible emissions resulted from removing the waste material from the equipment. Because this process does cause asbestos containing material to be crumbled, pulverized or reduced to powder it must be operated under wet conditions. As stated above, the nonfriable material must be adequately wetted before and during the removal process and remain wetted until collected for disposal. Visible emissions which occur during the waste collection procedure are evidence that the material was not adequately wetted and may result in an enforcement action by EPA against the owners or operators involved in the project. This determination has been coordinated with EPA's Office of Enforcement, Emission Standards Division, and Region VII.

If you have any further questions, please contact Scott Throwe of my staff at (202) 475-7002.

Attachment

cc: Alice Law, Region VII
JoAnn Heiman, Region VII
Asbestos NESHAP Coordinators, Regions I-X
Air Compliance Branch Chiefs, Regions I-X

Union Carbide trial exhibit UC-1907: John R. Hepola (EPA Region 6) to Melvin Lewis (Texas Air Control Board) Tr... Published by AsbestosClaims.Law
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