UC-3523

PLAINTIFF'S EXHIBIT

UC-3523

UNION CARBIDE

INTERNAL CORRESPONDENCE

METALS DIVISION

P. O. BOX 579-4625 ROYAL AVE., NIAGARA FALLS, NEW YORK 1430

To (Name) Messrs. T. R. Alexander
Division S. Hoffman
Location W. G. Kahler II
J. L. Myers
E. W. Shortridge
F. J. Shortsleeve

Copy to
Messrs. G. R. Adams
J. P. Benmore
R. G. Beverly
J. H. Cleveland
R. F. X. Fusaro
E. W. Kantz
K. C. McManus
E. T. Woods

Date December 21, 1978

Originating Dept. "Calidria" Asbestos

Answering letter date

Subject Transportation of Asbestos:
DOT Docket No. HM-160

R.1.2.3. (HM-160)

On December 4, 1978, the Department of Transportation promulgated a regulation which requires "commercial asbestos" to be shipped as a hazardous material under an ORM-C classification. The effective date is April 30, 1979. The regulation was considerably moderated from their original proposal but still appears to present several significant problems to our business.

A summary of the regulation was provided by Mr. W. G. Kahler II on December 8, 1978. The attachments to this letter present more details of the regulation including excerpts of the directly relevant sections and describe the packaging and shipping procedures now used for "Calidria" asbestos.

An assessment of the possible impact of the regulation on the asbestos business has been made. This assessment suggests that it is reasonable to assume that bulk hopper cars and our present polyethylene overwrapped bags unitized in pallets will be acceptable packaging. If this is correct, we are left with two main problem areas: shipments of about 4000 T/year ($538,000) to the oil well drilling industry and about 9000 T/year ($2,400,000) overseas. Both of these applications have the common problem that individual bags are hand-stacked in railcars, trucks, or shipping containers so that the new requirement of unitized and overwrapped pallets is not met.

In the drilling industry it would be technically feasible to use palletized material as far as the local warehouses at an incremental cost to Union Carbide of about $9 per ton. The one ton pallets would be extremely cumbersome if not largely unacceptable in the local distribution of the asbestos to the final user.

For overseas shipments the incentive for hand loading is primarily cost. The incremental cost for unitized loads would range from about the same

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$9 per ton for asbestos pellets to substantially more than that for the very light RG-244. The added difference is due to inefficient utilization of container space.

In view of the impacts outlined, the following alternative actions are outlined for your consideration:

1. Move to unitized packaging for the products now shipped in individual bags at the added costs to ourselves and to our customers. Sacrifice the portion of the business that cannot adapt. For the drilling industry we might, at further added cost, consider a pallet with four units of ten bags each which could be broken out into individual units.

2. Petition DOT for a reconsideration for individual overwrapped bags for such things as tightly packed trucks, railcars and containers and for short haul deliveries. It is hard to see how these present any significant threat to the environment.

3. Attack the regulation directly in the courts. The DOT justification that the present method of asbestos shipments causes a significant release of the hazardous materials to the environment is extremely tenuous and is backed by no data whatsoever, on such release.

A petition for reconsideration must be received by the DOT by January 4, 1979. Considering the potential cost impact on our business, it is recommended that we examine carefully whether a reasonably supportable petition can be prepared. At Mr. Kahler's suggestion, this will be explored with Mr. Stan Hoffman during the week of December 24, 1978. Comments and suggestions from all recipients of this letter are requested as soon as possible.

H. B. Rhodes

H. B. Rhodes

HBR:dal
Attachments

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DISCUSSION OF THE IMPACT
OF DOT DOCKET NO. HM-160
ON THE "CALIDRIA" ASBESTOS BUSINESS

Synopsis and Comments - Regulatory Requirements

A copy of the new regulation is attached. It is noted that most of the Federal Register Notice is preamble and the regulation itself consists of a very short insertion of asbestos into Part 172 which starts at the bottom of the third page.

Basically, the regulations define "asbestos" to include all the usual forms of this mineral. Applicability is limited, however, to "commercial asbestos" i.e., "any material or product containing asbestos that has commercial value because of its asbestos content." Further exceptions are provided for asbestos immersed or fixed in a natural or artificial binder material and for products or materials whose commercial value is not dependent on the asbestos content. Specific, but not exclusive, examples of appropriate binders listed are cement, plastic, asphalt, resins or mineral ore.

It appears from this that the transportation of our ore from the mine to the mill would not be subject to these regulations. Similarly, our customers' products would generally not be covered except where the asbestos per se is the product or is part of a dry blend. Dry-mix texture paint and the now defunct tape joint compounds are examples of such products.

The question has been asked whether our pellets might be an exempt product due to their physical form. Actually, no binder is added and in normal handling and shipping a substantial proportion of the pellets are broken into a course granular form with some fines. Exemption on this basis does not appear to be a viable assumption.

Commercial asbestos which is not covered by one of these exemptions must be transported in:

1. Rigid, airtight packagings such as metal or fiber drums, portable tanks, or

2. Bags and other non-rigid packagings that are dust and sift proof.

When the non-rigid packagings are used they must be palletized and unitized. An exception to the palletizing requirement, only, is made for non-rigid packages transported by highway by private carrier. There is also a general and vaguely defined requirement applicable to transportation by rail, air, vessel, and public highway that asbestos must be loaded, handled, and unloaded and any asbestos contamination be removed ". . . in a manner that will minimize occupational exposure to asbestos particles released incident to transportation." Finally, asbestos is classified as "Other Regulated Material", Class C i.e., (ORM-C).

The designation of asbestos as an ORM-C material carries with it a number of important obligations for both the shipper and the carrier. These

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include possible incident reports by the carrier (¶171.15), the shipper's responsibility that the material is properly packaged and in condition for shipping (¶173.22 and 173.24), shipping paper requirements for air and water shipments (¶172.200), and general marking requirements (Subpart D, ¶172.300, 172.304, 172.306, 172.308, and 172.316).

The sections listed are attached for reference for the convenience of those who do not have access to the DOT regulations. Certain highlights are noted as follows:

1. 171.15 Incident reports. This is a requirement by the carrier to provide an immediate telephone report followed by a written report to the DOT for certain direct results of the release of hazardous materials. The only criteria listed which might apply to asbestos is Item (a)(6) "in the judgement of the carrier. . ." "a continuing danger to life exists at the scene of the incident."

   This wording really does not fit the small probability of a hazard far in the future as a result of a present exposure to a carcinogen. Considering the publicity that asbestos has had; however, it is quite possible that the carriers might decide to report any large scale damage that might occur. There does not seem to be any reporting required if a shipment arrives with an occasional broken bag.

2. Under Part 172, "Subpart C - Shipping Papers", papers are required for air and water shipments only. These must include a certification by the shipper under paragraph 172.204 that all of the appropriate requirements of the DOT regulations have been satisfied. Union Carbide ships very little asbestos by air and a substantial amount by water. This requirement seems to add only a moderate increase in routine paperwork.

3. The marking requirements of Part 172, Subpart D must be followed. Each package of commercial asbestos must be marked in a prescribed way with the words "Asbestos" ORM-C.

   It has been ascertained by Mr. Kahler that hopper cars must be marked with the same words but that the size and manner of the markings are not defined and are left to the discretion of the shipper.

   It would appear that the simplest way to satisfy this requirement for bag shipments would be to print the DOT marking on each bag so that it would appear on "at least one side or end" of each pallet. This part also includes the same certification requirement that appears on shipping papers, i.e., the marking certifies that all DOT requirements have been satisfied and the packages are in proper condition for shipment.

4. Certain of the general requirements under Part 173, Subpart B also apply. These cover shipper responsibility and general packaging requirements that do not appear to add significantly to the special provisions for asbestos contained in the other sections.

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Packaging and Shipping of "Calidria" Asbestos

"Calidria" Asbestos comes in two forms; pellets about 3/8" in diameter, and finely-ground (opened), fluffy material. A substantial portion of the pellets are shipped in bulk hopper cars. The remainder of the pellets and all of the opened materials are shipped in valve-pack bags. Most of the bags are of multi-wall, kraft paper construction, but polyethylene is required for a limited number of uses. The valve pack bags have self-sealing holes to permit the escape of air during filling. The ability to vent air is particularly critical with the opened products which are packed by means of compressed air.

When the packer nozzle is removed from a valve-pack bag, a small amount of loose asbestos frequently remains in the valve. In order to seal this material in and to provide added strength to the package, most of our paper bags are covered with a shrink film of polyethylene. For certain applications for both paper and polyethylene bags, the bags are added unopened to the process so the shrink film is not used.

The bags are shipped to the customers in either of two ways:

1. Individual bags hand-stacked in rail cars, overseas shipping containers, or in trucks (generally common carrier).

2. Glued pallets with polyethylene shrink film over the entire pallet.

Limited exceptions are made in both of these methods to accomodate customer needs. These include pallets of paper bags without overwrap held together by the pallet overwrap only, glued pallets of polyethylene bags without pallet overwrap, and individual bags without overwrap hand-stacked in containers.

Possible Impact of Regulations on Shipping Procedures

General Considerations

There are a number of "gray" areas in assessing how the new regulations impact on our present shipping methods. Consider first the hopper cars. Transportation by "rigid, airtight packaging such as metal or fiber drums, portable tanks . . ." is permitted. It has been ascertained by Mr. W. G. Kahler (letter of December 8, 1978) that such cars are acceptable to DOT provided that they are "airtight". "Airtight" does not appear to be defined anywhere in the regulation. This question has been discussed with Mr. Shortridge and he feels that a good case can be made that the hopper cars are airtight. They also seem to meet the general criteria for packaging of ¶173.24. It would appear that our hopper car shipments conform to the new regulations.

The next critical question is whether our bags are "dust and sift proof". (Note that the requirement here is not "airtight".) This phrase, also, is not defined and needs to be considered alone and in the light of the general requirements of ¶173.24 attached.

When the shrink film equipment is operating properly, the packages appear to meet any reasonable interpretation of this requirement. When not in proper adjustment, it is quite possible to have gaps in the wrapping where the

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material left in the spout can leak out during handling and shipment. Although the total leakage in any shipment would be small, it would appear that any bags which are improperly wrapped would not satisfy the regulation. Added attention to quality control and inspection at an added cost may be necessary here. The bags which are not overwrapped would not appear to be acceptable as dust and sift proof.

Shipments of Individual Bags - Drilling Mud Industry

Assuming that it is agreed that our shrink film bags can be made to meet the "dust and sift proof" criteria, the additional palletizing and shrink wrapping that is our current practice should pose no problem or further additional expense. The main remaining difficulty would be for the substantial volume of shipments where the bags are packed individually and are not unitized or palletized.

The domestic shipments of hand-stacked bags (all overwrapped) are mainly for the drilling mud industry. The product goes from our plant by rail or truck to a multiplicity of warehouses. It moves from the warehouses to the drilling rigs in lots typically in the range of 10 to 30 bags in trucks that are generally operated by small local carting companies who are hired on a spot basis. They are generally not private carriers so the private carrier exemption would not apply. The rigs do not have fork lift capabilities and all materials are handled in individual bags. Unused material is returned for credit and sold again.

This entire industry is both highly competitive and oriented to the handling of large amounts of various materials in individual bags. Standard practice is to minimize inventory at the wells and to receive all materials in frequent, relatively small, shipments.

Our incremental cost to supply unitized pallets is about $9 per ton. It is generally technically feasible (but obviously more costly) to ship by pallet via rail or truck to the distribution warehouses. Pallet shipments to the rig locations would be extremely cumbersome and would result in a substantial drop in the use of asbestos in this application.

In the drilling of an oil well, asbestos performs certain spot functions in a uniquely effective manner. It continues to be used widely in spite of the burden of very restrictive occupational and environmental regulations. There are, however, other generally less effective ways to achieve similar end results. We are not in a position to argue that asbestos is absolutely essential to oil well drilling.

The only way that we can see to comply with the new regulations in this application is to ship on smaller pallets i.e., 10 or 20 bags per pallet. Obviously, our incremental cost would be at least double ($18/ton) for 20 bag units and quadruple ($36/ton) for 10 bag units. For material that now sells for $136/ton these represent very substantial cost increases.

It is evident that some relief is urgently needed. As a minimum, we need to convince the DOT that local deliveries to the end user (or returns to the supplier) of individual, undamaged, dust and sift proof packagings will not present a danger to the public or the environment. It is a proven fact from our shipping experience that hand-stacked cars and trucks arrive in much better condition than when pallets are used. When bags are individually loaded, the vehicle

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is loaded tight from side-to-side and end-to-end and there is no movement during transportation.

Shipment of Individual Bags - Overseas

The other large scale use of unpalletized bags is in export shipments. Here the bags are hand-stacked in ocean containers. Both uncovered and overwrapped bags are shipped in this manner. This method of shipment is used for several reasons: 1) Hand-Stacking prevents bag damage due to shifting loads, 2) some consignees do not have forklift unloading equipment, 3) container space can be better utilized, which is especially important for our open fiber products such as RG-244 which has a shipping density of almost 400 cubic feet per 2000 lbs. and 4) reduced packaging and shipping costs.

The problem here, for the bags that are overwrapped, is quite similar to the drilling industry, i.e., substantial incremental costs at no demonstratable gain in control of fiber release and a significant portion of the consignees who must handle individual bags. We need to obtain relief here on the basis that the containers provide adequate protection as long as the dust and sift proof bags are properly stowed and secured.

The shipment of individual bags which are not overwrapped clearly does not meet the "dust and sift proof" requirement and presents a special problem. The personnel at our plant wear respirators while loading the containers as an extra precaution even though the OSHA standard for occupational exposure is not exceeded. The use of sealed ocean containers does not present any hazard to the public or to the environment; but, considering the adverse publicity that asbestos is receiving today, the DOT may not accept this position.

We probably need to either abandon this method of shipment or find a way to make these bags dust tight without overwrapping. For pellets packed in paper bags this might be done with sewn-top bags but the added cost for new equipment and space limitations at the plant do not make this attractive. The thread used for sewing also may not be compatible with the end use where the bags are not opened. For opened product in paper bags there is no known way to achieve dust tight condition. The plastic bags are not currently used for overseas shipments.

Special Problems - Domestic Shipments

Two special situations remain. First, plastic bags without overwrap are shipped to certain customers on glued but not overwrapped pallets. The bags are added directly to the system and polyethylene overwrap is compatible. It may be possible to overwrap the entire pallet to make it an acceptable non-rigid packaging, i.e., one which is dust and sift proof. It is not clear whether this really satisfies the regulation.

Paper bags without individual overwrap are shipped to the Oakland Bay area on pallets held together by the pallet overwrap only. Better overwrap to make the package dust and sift proof may be possible or arrangements for shipment by private carrier might be worked out to solve this problem.

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TRANSPORTATION OF ASBESTOS

43 CFR, No. 233 - Monday, December 4, 1978

UCC 009158

[4910-60-M]

Title 49—Transportation

CHAPTER I—RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

[Docket No. HM-160; Amdt. Nos. 172-47, 173-123, 174-33, 175-7, 176-6, 177-44]

TRANSPORTATION OF ASBESTOS

Miscellaneous Amendment

AGENCY: Materials Transportation Bureau, Research and Special Programs Administration, DOT.

ACTION: Final Rule.

SUMMARY: These amendments require shipments of commercial asbestos fibers to be packaged in rigid, airtight or dust and sift proof packagings. Except when the shipment is by private carrier, non-rigid packages, such as bags, must be palletized and unitized using shrink-wrapping or strapped fiberboard wrapping. These amendments represent minimum safety requirements and are intended to reduce the risks to the public health associated with the generation of airborne concentrations of asbestos that may result from the packaging and handling of asbestos fiber shipments in commercial transportation.

EFFECTIVE DATE: These regulations are effective April 30, 1979.

ADDRESS: All written comments received in this rulemaking action are available for examination during regular business hours in the Dockets Branch, Room 6500, Trans Point Building, 2100 Second Street SW., Washington, D.C.

FOR FURTHER INFORMATION CONTACT:

Douglas A. Crockett, Standards Division, Materials Transportation Bureau, Research and Special Programs Administration, 2100 Second Street SW., Washington, D.C. 20590, phone 202-426-2075.

SUPPLEMENTARY INFORMATION: On March 2, 1978, a notice of proposed rulemaking (HM-160; Notice 78-3) was published in the FEDERAL REGISTER (43 FR 8562) stating that the MTB was planning to exercise regulatory control over the transportation of asbestos. Specific regulatory requirements were proposed for the control of certain forms of asbestos (e.g., milled or crude asbestos fibers). No requirements were proposed for asbestos fibers which are immersed or fixed in a natural or artificial binder material, or for manufactured products containing asbestos. Interested persons were invited to participate in the rulemaking proceeding through submission of written comments on the proposal to the MTB. All submissions, including late submissions, that were received on the proposal were fully considered by the MTB in the development of this final rule.

NEED TO REGULATE THE TRANSPORTATION OF ASBESTOS

Several commenters felt that the MTB had failed to establish a need to regulate the transportation of asbestos. One of the commenters suggested that there was no need for the proposed regulatory control of asbestos in transportation because the "methods and procedures now in use for the packaging and transport of asbestos meet the requirements of Part 173. 24(A)(sic) of the Transportation Act, that is 'under conditions normally incident to transportation there will be no significant release of the hazardous materials to the environment' and 'the effectiveness of the packaging will not be substantially reduced * * * (t)he proposal contains no documentation to justify additional regulation." This commenter, while apparently believing that asbestos is a hazardous material, was incorrect in suggesting that asbestos is currently regulated by the MTB; or in suggesting that the purpose of Notice 78-3 was to justify the additional regulation by the MTB of asbestos in transportation. The transportation of asbestos is not now regulated by the MTB. It was precisely the purpose of Notice 78-3 that it should be. If, as the commenter suggests, the transportation of asbestos is now "in compliance with pertinent provisions of the Transportation Act," this rulemaking action will formalize and insure in a uniform and systematic manner that this is the case.

Another commenter stated that Notice 73-8 did "not establish a foundation for regulation, in that it does not document, or even allege for that matter, the actual release of fiber during the transportation of asbestos." As was pointed out in Notice 78-3, the MTB has "no detailed information on the amount of asbestos fibers released during transportation." The MTB does not now regulate asbestos, and has not therefore systematically collected accident data on the amounts of asbestos released in transportation or data on the frequency of such accidents. Most asbestos fiber, however, is currently shipped in bags, and it is undeniable that these bags can and do break, or can be and are being torn or punctured, with a consequent release of some or all of the bag contents. It can be speculated, moreover, that if all of the 750,000 tons of asbestos annually shipped in the United States were packaged in, as one commenter states, the "standard package" of a 100-pound bag; and if as little as one-tenth of one percent of these bags were damaged in transportation during the year (one out of a thousand) and if on the average 1 percent of the contents of the bags so damaged were released, the total amount of asbestos released per year would equal about 7.5 tons. These calculations give a general idea of the magnitude of asbestos fiber that would be released, given a 99.9 percent efficiency factor for "bag integrity" in transportation, and a 99.0 percent efficiency factor in minimizing the amount of asbestos released given a tear in the bag. The rather evident fact that asbestos has been accidentally released during transportation has not been contradicted by anything submitted to the public docket on this rulemaking action. One commenter, for example, in discussing the use of open-bed trailers with side racks and tarpaulins to transport asbestos stated that there is no evidence that the use of such trailers "has contributed to bag breakage and the release of airborne concentrations of asbestos fiber." The Asbestos Information Association, an incorporated nonprofit organization representing 51 firms in the United States and Canada engaged in the manufacture or processing of asbestos-containing products and the mining/milling of asbestos fibers, stated that with "the very large volume of asbestos shipped, occasional container damage may occur."

Although several commenters who discussed this matter do not contend that asbestos has not been released in transportation, they generally are of the view that the amounts that are being released are not significant or of a sufficient amount to pose an unreasonable risk to public health. The MTB does not agree; it believes that the amounts of asbestos fibers that are being released now, or would be released in the future, in the absence of these amendments, may pose an unreasonable risk to health.

Several commenters were concerned with the statement appearing in Notice 78-3 that "asbestos in its several commercial forms, poses serious health hazards to individuals subject to long term exposure to airborne asbestos concentrations." One commenter stated that "not all long-term exposures to airborne concentrations pose any health hazards * * *." Another commenter suggested that the statement needed "more explicit definition" and that "reference should have been made to unanswered questions within the scientific community concerning mineral type, fiber size and smoking in the asbestos-cancer relationship." One commenter stated that there is a dose-response relationship between exposure to asbestos and disease causation, and that this conclusion is supported by an OSHA statement from its June 7, 1972 preamble

UCC 009159

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transportation, it is by no means certain that the pace of such technological improvements is rapid enough or that the best, economically feasible technology is being considered. However, the classification of asbestos as an ORM-C will, for the first time, require the submission of incident reports to the MTB by carriers of any unintentional release of asbestos during transportation, and enable the MTB to monitor the safety performance record associated not only with the transportation alternatives available under current technology as provided for by these amendments, but also with any improvements in that technology.

For these reasons, the substance of proposed § 173.1090(c)(1) is being retained but modified to reflect an even broader range of permissible rigid, airtight packaging alternatives. This section now is identified in this amendment as § 173.1090(d)(1) because of the addition of new paragraph (b).

SECTION 173.1090(c)(2)

Proposed paragraph (c)(2) of Notice 78-3 covered the transportation alternative of shipping commercial asbestos in bags when in closed freight containers, motor vehicles, or rail cars that were loaded by the consignor and unloaded by the consignee. Several commenters noted that, unless reliance was placed on using the rigid, airtight packaging alternative provided in the proposal, this alternative would preclude the shipment of asbestos fibers by open-bed trailers. One commenter noted that there is "no evidence to indicate that the use of open-bed trailers with side racks and tarpaulins has contributed to bag breakage and the release of airborne concentrations of asbestos fiber." Another commenter noted that the type of bag permitted by proposed paragraph (c)(2) was not specified, and that the shipper could package asbestos in burlap bags, or very thin paper or polyethylene bags which could permit asbestos fibers to be easily released into the air during transit. Another commenter was concerned with "small volume users of asbestos and customers who, from time to time, require sample shipments for trial production runs of a few hundred pounds," and who under § 173.1090(c)(2) would be forced to acquire the exclusive use of a railcar or highway trailer, or rely on the alternative provided by § 173.1090(c)(1).

Given the lack of detailed data on the amount of asbestos fibers released in transportation and the circumstances and causes for such release, the MTB is in general agreement with the thrust of these comments; accordingly, a new paragraph (d)(2) recognizes less restrictive handling of bagged asbestos than was proposed.

SECTIONS 174.840, 175.640, 176.906, 177.844

In these Sections, Notice 78-3 had proposed that, incident to its transportation, asbestos must be loaded, handled, and any asbestos contamination removed, in a manner that will *prevent* occupational exposure to airborne asbestos particles (emphasis added).

Some commenters objected to the word "prevent," believing that this word was intended to mean completely precluding the possibility of an accident occurring in which asbestos fibers would be released; or completely isolating people involved in the transportation, loading and unloading of asbestos from exposure to asbestos fibers from whatever source such fibers were generated. One commenter pointed out that with "the very large volume of asbestos shipped, occasional container damage may occur." Another commenter pointed out, although in a somewhat contradictory fashion, that since "asbestos is ubiquitous," therefore "airborne levels of asbestos fibers *can* be present in any place of employment, regardless of whether or not asbestos or products containing known quantities of asbestos are handled" (emphasis added). The Asbestos Information Association in its comments stated that "asbestos is ubiquitous, and there are *no workplaces where there is zero occupational exposure to asbestos*" (original emphasis). If Notice 78-3 was not as clear as it might have been on this point, it is only necessary to say that the basic purpose of these amendments is to *minimize* the exposure to airborne asbestos particles accidentally released during or incident to transportation; and appropriate changes to Parts 174, 175, 176, and 177 have been made to reflect this purpose.

ORM-C CLASSIFICATION

Notice 78-3 proposed that the classification for "asbestos" would be as an ORM-C, (Other Regulated Material, Group C). Several commenters were uncertain and concerned about the marking requirements associated with ORM-C classifications. One commenter noted that the designation ORM-C would "carry no meaningful warning to the person handling or opening the package." Another noted that the present regulations of the Occupational Safety and Health Administration (OSHA) on labeling requirements for asbestos convey much more information than an ORM-C marking requirement. These commenters were apparently not completely familiar with the marking requirements associated with ORM-C designated materials. The ORM-C marking not only warns when a package contains hazardous material, but it is also a certification by the person offering the package for transportation that the material is properly described, classed, packaged, marked, and labeled (when appropriate) and in proper condition for transportation according to applicable regulations of the Department. Neither function precludes or preempts OSHA labeling requirements or creates "contradictory regulatory requirements for labeling" as one commenter suggested. For these reasons, no changes have been made with respect to any marking requirements for asbestos packages.

ECONOMIC/INFLATIONARY IMPACT

In reviewing the potential economic and inflationary impacts associated with the final rule, the MTB has determined that such impacts will be minimal. Based on the comments received, and the consequent modification of Notice 78-3, the only economic costs associated with final amendment pertain to the reporting requirements to be submitted to MTB on the accidental releases of commercial asbestos fibers during or incident to transportation. The absolute annual magnitude of these costs will be, of course, a function of the total number of incident reports that are submitted on accidental releases of asbestos fibers; but in view of the undisputed grave consequences from exposure to asbestos fibers, these reporting requirements will not impose an unnecessary burden on the economy, on individuals, or on public and private organizations.

In consideration of the foregoing, Title 49, Code of Federal Regulations, Parts 172, 173, 174, 175, 176, and 177 are amended as follows:

PART 172—HAZARDOUS MATERIALS TABLE AND HAZARDOUS MATERIALS COMMUNICATIONS REGULATIONS

1. In § 172.101 the Hazardous Materials Table is amended by adding a new entry, immediately following "Arsine," to read as follows:

UCC.009160

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PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

2. Section 173.1090 is added preceding Subpart N to read as follows:

§ 173.1090 Asbestos.

(a) Asbestos includes any of the following hydrated mineral silicates: *chrysotile, crocidolite, amosite, anthophyllite asbestos, tremolite asbestos, actinolite asbestos,* and every product containing any of these minerals.

(b) Commercial asbestos is any material or product containing asbestos that has commercial value because of its asbestos content.

(c) *Asbestos which is immersed or* fixed in a natural or artificial binder material (such as cement, plastic, asphalt, resins or mineral ore) and manufactured products containing asbestos or any materials or products whose commercial value is not dependent on their asbestos content, are not subject to the requirements of this subchapter.

(d) Commercial asbestos must be offered for transportation and transported in—

(1) Rigid, airtight packagings such as metal or fiber drums, portable tanks, or

(2) Bags and other non-rigid packagings that are dust and sift proof. When transported by other than a private carrier by highway, bags and other non-rigid packagings containing asbestos must be palletized and unitized by methods such as shrink-wrapping in plastic film or wrapping in fiberboard secured by strapping.

PART 174—CARRIAGE BY RAIL

3. A Subpart M Heading is added immediately following § 174.812 to read as follows:

Subpart M—Detailed Requirements for Other Regulated Materials

4. Section 174.840 is added to read as follows:

§ 174.840 Special loading and handling requirements for asbestos.

Asbestos must be loaded, handled, and unloaded, and any asbestos contamination of rail cars removed, in a manner that will minimize occupational exposure to airborne asbestos particles released incident to transportation. (See § 173.1090 of this subchapter.)

PART 175—CARRIAGE BY AIRCRAFT

5. Section 175.640 is added to read as follows:

§ 175.640 Special requirements for other regulated materials.

Asbestos must be loaded, handled, and unloaded, and any asbestos contamination of aircraft removed, in a manner that will minimize occupational exposure to airborne asbestos particles released incident to transportation. (See § 173.1090 of this subchapter.)

PART 176—CARRIAGE BY VESSEL

6. Section 176.906 is added to read as follows:

§ 176.906 Stowage and handling of asbestos.

Asbestos must be stowed, handled, and unloaded, and any asbestos contamination of vessels removed, in a manner that will minimize occupational exposure to airborne asbestos particles released incident to transportation. (See § 173.1090 of this subchapter.)

PART 177—CARRIAGE BY PUBLIC HIGHWAY

7. Section 177.844 is added to read as follows:

§ 177.844 Other regulated materials.

Asbestos must be loaded, handled, and unloaded, and any asbestos contamination of transport vehicles removed, in a manner that will minimize occupational exposure to airborne asbestos particles released incident to transportation. (See § 173.1090 of this subchapter.)

(49 U.S.C. 1803, 1804, 1808; 49 CFR 1.53(e).)

NOTE.—The Materials Transportation Bureau has determined that these amendments do not require a regulatory analysis under the items of Executive Order 12044 and DOT implementing procedures (43 FR 9582). A regulatory evaluation is available for review in the docket.

Issued in Washington, D.C., on November 27, 1978.

L. D. SANTMAN,
Director, Materials Transportation Bureau.

[FR Doc. 78-33771 Filed 12-1-78; 8:45 am]

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EXCERPTS FROM

DOT, MTB

HAZARDOUS MATERIALS REGULATIONS

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§ 171.15 Immediate notice of certain hazardous materials incidents.

(a) At the earliest practicable moment, each carrier who transports hazardous materials shall give notice in accordance with paragraph (b) of this section after each incident that occurs during the course of transportation (including loading, unloading and temporary storage) in which as a direct result of hazardous materials—

(1) A person is killed;

(2) A person receives injuries requiring his hospitalization;

(3) Estimated carrier or other property damage exceeds $50,000;

(4) Fire, breakage, spillage, or suspected radioactive contamination occurs involving shipment of radioactive material. (See also §§ 174.588(c) (1), 175.655 (j) (3), and 177.861(a) of this chapter.) or

(5) Fire, breakage, spillage, or suspected contamination occurs involving shipment of etiologic agents; or

(6) A situation exists of such a nature that, in the judgment of the carrier, it should be reported in accordance with paragraph (b) of this section even though it does not meet the criteria of paragraph (a) (1), (2), or (3) of this section; e.g., a continuing danger of life exists at the scene of the incident.

(b) Each notice required by paragraph (a) of this section shall be given the Department by telephone at Area Code (202) 426-1830. Notice involving etiologic agents may be given the Director, Center for Disease Control, U.S. Public Health Service, Atlanta, Ga., Area Code (404) 633-5313, in place of the notice to the Department. Each notice must include the following information:

(1) Name of reporter.

(2) Name and address of carrier represented by reporter.

(3) Phone number where reporter can be contacted.

(4) Date, time, and location of incident.

(5) The extent of injuries, if any.

(6) Classification, name, and quantity of hazardous materials involved, if such information is available.

(7) Type of incident and nature of hazardous material involvement and whether a continuing danger to life exists at the scene.

(c) Each carrier making a report under this section shall also make the report required by § 171.16.

[Amdt. 171-7, 35 F.R. 16237, Oct. 3, 1970, as amended by Amdt. 171-13, 36 F.R. 21201, Nov. 4, 1971; Amdt. 171-18, 38 FR 8182, Mar. 29, 1973]

§ 171.16 Detailed hazardous materials incident reports.

(a) Each carrier who transports hazardous materials shall report in writing in duplicate on DOT Form F 5800.1 to the Department within 15 days of the date of discovery, each incident that occurs during the course of transportation (including loading, unloading, or temporary storage) in which, as a direct result of the hazardous materials, any of the circumstances set forth in § 171.15(a) occurs or there has been an unintentional release of hazardous materials from a package (including a tank).

(b) Each carrier making a report under this section shall send that report to the Secretary, Hazardous Materials Regulations Board, Department of Transportation, Washington, D.C. 20590.

[Amdt. 171-7, 35 F.R. 16237, Oct. 3, 1970]

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Subpart D—Marking

§ 172.300 General marking requirements.

Except as provided in this section, §§ 172.302 and 172.316, and Part 173 of this subchapter, each person who offers a package containing a hazardous material for transportation shall mark the package with the proper shipping name required by § 172.101. However, when it has been determined by the shipper that a package has been previously marked as required for the material it contains, it need not be re-marked.

§ 172.304 Marking specifications.

(a) The marking required in this subpart—(1) Must be durable, in English and printed on or affixed to the surface of a package or on a label, tag, or sign.

(2) Must be displayed on a background of sharply contrasting color;

(3) Must be unobscured by labels or attachments; and

(4) Must be located away from any other marking (such as advertising) that could substantially reduce its effectiveness.

§ 172.306 Consignee's name and address.

(a) Each package containing a hazardous material offered for transportation must be marked with the name and address of the consignee except when the package is—(1) Transported by highway and will not be transferred from one motor carrier to another;

(2) Part of a carload lot, truckload lot, or freight container load, and the entire contents of the rail car, truck or freight container are tendered from one consignor to one consignee, or

(3) A portable tank, cargo tank or tank car.

§ 172.308 Authorized abbreviations.

(a) Abbreviations may not be used except in the following instances—(1) For marking descriptions on ammunition, such as ammunition for cannon without projectiles, etc., the words "with" or "without" may be abbreviated as "W" or "W/O" for example: "ammunition for cannon W/O projectiles"

(2) The abbreviation "ORM" may be used in place of the words "Other Regulated Materials."

§ 172.316 Outside packagings containing ORM.

(a) Except as provided in § 173.505 of this subchapter, each package containing a material classed as ORM–A, B, C, or D must be plainly and durably marked on at least one side or end with the appropriate ORM designation immediately following or below the proper shipping name of the material. The appropriate ORM designation must be placed within a rectangle that is approximately ¼ inch (6.3 mm.) larger on each side than the designation. The appropriate designation for each ORM must be:

(1) ORM–A for an ORM–A.

(2) ORM–B–KEEP DRY for an ORM–B that is a solid and is corrosive only to aluminum when wet.

(3) ORM–B for an ORM–B other than that described in paragraph (a)(2) of this section.

(4) ORM–C for an ORM–C.

(5) ORM–D–AIR for an ORM–D that is prepared for air shipment and packaged in accordance with the provisions of § 173.6 of this subchapter.

(6) ORM–D for an ORM–D other than that described in paragraph (a)(5) of this section.

(b) When the ORM–D marking can not be affixed on the package surface, it may be on an attached tag.

(c) The marking ORM–A, B, C, or D is the certification by the person offering the package for transportation that the material is properly classed, packaged, marked, and labeled (when appropriate) and in proper condition for transportation according to the applicable regulations of the Department. This form of certification does not preclude the requirement for a certificate on a shipping paper when required by § 172.200.

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