

## WRITTEN REPLY COMMENTS

## GOVERNMENT OF CANADA

## EXECUTIVE SUMMARY

These written reply comments represent the considered views of the Government of Canada regarding EPA's proposed asbestos phaseout and ban, after reviewing the evidence presented by EPA in support of its proposed rule, as well as the evidence presented during the informal hearings of July, 1986, and the cross-examination hearings of October, 1986. The Government of Canada believes that EPA has not demonstrated the existence of substantial benefits from the proposed rule. Indeed, EPA has withdrawn, and is re-doing, most of the analysis upon which that rule rests. The rule, too, should be withdrawn pending the production of new evidence.

The benefits alleged by EPA derive from estimates of the risk per unit of exposure to airborne asbestos fibres and from estimates of the extent of exposure to those fibres. EPA has assumed that all asbestos fibre types and all industrial processes cause the same risk per unit of exposure. However there is strong evidence that crocidolite, and to a lesser extent amosite, cause far greater risks than chrysotile alone. Manufacturing of textiles using chrysotile also causes greater risks than exposure to chrysotile in general manufacturing. These differences in risk per unit of exposure have been recognized by expert bodies in Canada, Britain, and the United States (p. 4), and are reflected in differential regulations in many western nations (p. 5). Since most of the risks projected by EPA arise from general chrysotile use, EPA's failure to differentiate risks leads to an overestimate of the benefits from the proposed rule by as much as a factor of ten (p. 8).

Not only has EPA overstated the risk per unit of exposure to asbestos, it has overestimated those exposures themselves. In the case of vinyl-asbestos floor tile (VAT) EPA relies upon a study that presents absolutely no basis for relating airborne asbestos fibre levels to the presence of VAT (p. 9). EPA staff have conceded that this study is not relevant, and that the exposures must be re-estimated (p. 9). Furthermore the single study that suggests that VAT may release asbestos fibres found only fibres shorter than three microns (p. 10). Such short fibres are not even counted in conventional measurement techniques, are not regulated by OSHA, and are believed to present little or no health hazard. This record fails to establish that any risk is associated with the use of VAT. Finally, EPA has overstated the number of persons exposed to VAT by a factor of 25 (p. 10). The very highest benefit that can be attributed to banning VAT is not 468 cases, but 2 cases (p. 11).

Reviewing the analysis of benefits for other products reveals similar overestimates of both airborne fibre levels and of the number of persons exposed. EPA has repeatedly indicated that it is rethinking its analysis, reviewing its results, and conducting studies to replace those

relied upon in the proposed rule (p. 11).

EPA has acknowledged that substitutes for asbestos may present some risks, but has not estimated those risks in calculating the benefits of the proposed rule. Where, as here, the per capita risks avoided by the proposed rule are very small, even small risks presented by substitutes may completely overwhelm the alleged benefits of the proposed rule (p. 12).

On this record, EPA's asserted benefits of the proposed rule are unsubstantiated and without merit (p. 13).

Even if there are small risks from continued asbestos use, these risks are within the range found societally acceptable in the United States. In the workplace, estimated asbestos-related risk rates are well below risks of accidental fatalities faced by workers in the United States (p. 15). In the environment, estimated asbestos-related risk rates are far below many everyday risks faced by the general public in the United States, and in fact are so low as to be regarded as insignificant (p. 16). International expert bodies and national and state governments in many countries have accepted such risks (pp. 16-19). Indeed, the environmental risks estimated by EPA to be associated with products subject to the proposed rule are less than one one-thousandth as great as the risks posed by radon gas in many homes in the United States, a risk that EPA has implicitly accepted (p. 17).

The proposed rule is unnecessary in part because the high-risk uses of asbestos have already been eliminated. The application of friable asbestos insulation ceased in the United States in the early 1970's, and is now banned. Current occupational exposure levels are 1/25th of those allowed in the early 1970's, and one one-hundredth the exposures that some workers faced in the 1950's and 1960's (p. 20). The need for regulations to control asbestos risks has been met by existing regulations in the United States (p. 20).

Many other countries with whom the United States has close relations have adopted a controlled use approach to asbestos. The proposed rule, with its deficient factual support would place the United States in an isolated position in the international community on this issue (p. 20).

The proposed rule must flow from such need for the rule as is demonstrated by the supporting evidence. This requires that the rule may not precede the evidence. The EPA's supporting evidence has been shown to be so deficient that it is in effect being withdrawn, to be replaced by new evidence in the coming year. With the supporting evidence missing, the rule itself cannot stand. The collapse of EPA's supporting evidence leads inexorably to one conclusion: the proposed rule must be withdrawn. To do otherwise would put into question the validity of the entire rule-making process, and imply that EPA will impose this rule regardless of the absence of facts to support it. The Government of Canada does not believe that this is the case, nor that EPA would wish it to appear so.

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#### I. EPA HAS FAILED TO DIFFERENTIATE RISKS BY FIBRE TYPE AND PROCESS

EPA has overestimated the risks associated with most of the products subject to the proposed rule, because it has failed to recognize that different health risks are presented by different types of asbestos and different industrial processes using asbestos. EPA has relied for its health effects analysis primarily on one document, the Chronic Hazard Advisory Panel report (CHAP, 1983), and on one analyst, Dr. M. Schneiderman (Transcript, Oct. 6, pp. 15-21). It has failed to consider adequately other views presented by authoritative reports and researchers. Consideration of these other views would greatly reduce the risks estimated to be associated with many products affected by the proposed rule.

These comments will refer to a variety of sources, but will accord particular attention to the report of the Ontario Royal Commission on Asbestos (ORCA, 1984). The three commissioners are all distinguished academics who have held positions of high responsibility in their respective universities as well as outside of those universities. The Commission was truly independent, not only of governments, but also of industry. The Commission's information-gathering included 53 days of formal hearings during which 59 witnesses testified under oath, subject to cross examination by the Commissioners and by representatives of interested parties. About half of these witnesses were scientists, constituting an international who's who of experts on the health effects of asbestos. The ORCA report, covering over 900 pages in three volumes was released in May of 1984. The Government of Canada may not agree with all of the Commission's conclusions and recommendations. However, the ORCA report has received widespread acclaim as the most comprehensive single independent source of information about asbestos today.

##### A. Why Risks Should Differ by Fibre Type and Process

The asbestos that is the subject of the proposed rule is not a single natural mineral, but a family of fibrous silicate minerals of the serpentine and amphibole groups. The three commercially important types of asbestos minerals differ in chemical composition and physical characteristics, including fibre shape. Chrysotile, the only fibrous member of the serpentine group, contains magnesium, is white or grey, consists of tubular fibres, and is resistant to alkalis but not to acids. Amosite, one of the asbestiform amphibole minerals, contains iron or magnesium or both, is generally brown, has straight needle-like fibres, has low tensile strength, and is moderately resistant to alkalis and acids. Crocidolite, another amphibole, contains sodium and iron, is blue in color, has straight needle-like fibres, and has good acid resistance. Product uses often require a specific type of asbestos (EM&R, 1986, pp. 15-23).