COSTING THE PHASE-OUT OF METHYL BROMIDE FOR NON-SOIL USES IN THE UNITED KINGDOM

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On 1 July 1998 the Commission for the European Communities adopted proposals for a new Regulation on ozone-depleting substances including methyl bromide. For methyl bromide it is proposed to go beyond the current requirements of the Montreal Protocol by bringing forward the phaseout date for production and consumption to 1 January 2001. It is accepted that all current uses for the fumigant are unlikely to be replaced by 2001 and consequently there is provision in the Regulation for critical use exemptions. It is proposed, however, that the current blanket exemption for quarantine and pre-shipment uses of methyl bromide be removed, and it will be for individual member states to assess and propose their own critical use exemptions against criteria set by the Commission.

In order to adopt an informed negotiating position with respect to the Regulation proposed, the United Kingdom government commissioned several studies. One of these studies, commissioned by the Department of the Environment and the Ministry of Agriculture Fisheries and Food, was for a Cost Compliance Assessment for non-soil uses of methyl bromide and this study was conducted by the Natural Resources Institute (NRI). The objective of this paper is to discuss conduct of the study rather than to present the results of the cost assessment which will be published later by the UK government. The NRI team undertaking the assessment comprised technical staff experienced in the use of methyl bromide, economists having considerable experience in this type of study, and environmental scientists. Because the primary objective was to determine the cost to the country under an accelerated phaseout programme for methyl bromide, a major proportion of the work programme was conducted by the team's economists.

Information on the uses of methyl bromide in the UK, and on alternatives technologies already adopted, was obtained mainly by extensive telephone contact rather than through visits and face to face discussion. This was principally because of cost and time constraints on conducting the assessment. Contact was established with as wide a range as possible of those involved with non-soil use of methyl bromide in the UK. Additional contacts were also made in several other European member states, particularly in relation to alternative technologies already adopted. Initially, the British Pest Control Association was asked to provide details of their members which they did readily. Information from members on methyl bromide usage, and on alternatives that they might already be using, was obtained by means of a questionnaire, although many were also contacted by telephone. The Department of the Environment, which compiles statistics of methyl bromide consumption, and also the suppliers of methyl bromide in the UK, provided details of annual fumigant sales and this information, together with that obtained from pest control companies, enabled compilation of a spread sheet of the quantities of methyl bromide employed within the various usage sectors covering primarily, commodities and structures.

Concurrent with the gathering of information from those directly involved in fumigation and pest control, extensive contact was also made with commercial companies handling commodities that may need to be disinfested. Enquiries were often channelled through trade associations but were also directed to individual commercial companies. Because of their major interest in food hygiene and quality standards much attention was given to flour millers and to food manufacturers. It was considered essential to obtain information and opinions of relevant staff in the food industry on the current use of methyl bromide, on the proposed accelerated phaseout schedule, and on the potential for alternatives that are either already being used or likely to be introduced in the future.

Government departments responsible for quarantine regulation of imported plant materials, and for pesticide registration were contacted, as were port authorities, shipping agents and others having an interest in the effect of an accelerated phaseout of methyl bromide. Because the study was essentially a cost assessment it was important to determine if there were commercial organisations that might have to cease operation if methyl bromide were no longer available. This included pest control companies that may rely solely upon methyl bromide for their business, and commercial companies such as those importing plant materials, that might have to cease operation if phytosanitary certificates could not be issued because methyl bromide fumigation could no longer be conducted. If some businesses ceased operation because methyl bromide could not be used there could be commercial losses relating to import and export of commodities and associated unemployment.

Minor uses of methyl bromide in the UK were found likely to be the most difficult to replace. Examples of these uses include fumigation of aircraft, principally to control rats, treatment of imported plant materials for quarantine purposes, and treatment of cheeses in traditional stores to control mites. Major uses of methyl bromide where complete cessation of use by 2001 may prove difficult in the UK are probably similar to those in many other countries and include the disinfestation of flour mills, and the pre-shipment treatment of export commodities where packing materials or transport containers may support wood boring insects. Food commodities such as cocoa, rice, and dried fruit and nuts frequently arrive at UK ports in an infested condition and require fumigation. Methyl bromide is currently used because it provides the rapid treatment that is considerable essential at port facilities. Although phosphine is a major alternative to methyl bromide for commodity fumigation in many countries, its use in the UK, as in other northern European countries, is constrained by low temperatures.

It is worth recording that information and data were readily supplied by all those contacted during the course of the assessment. A major reason for this may have been that the assessment was seen as providing information that might assist in later applications by the UK government for critical use exemptions, or emergency use provision, if and when the new Regulation is enacted. Study data and assessment findings were screened by NRI's environmental scientists who were also involved in framing the final report as presented to the commissioning government departments.