those hazardous constituents that cannot be demonstrated to be reacted in the process, recovered, or otherwise controlled should be included in the exemption calculation. The commenter also suggests that EPA consider credits or an exemption allowance for leak detection and repair programs which are currently in place and are part of the control process for carbamate production and K157 wastewaters.

The Agency agrees control devices for volatile constituents should be considered in the K157 wastewater exemption mass balance because there are valid control measures that prevent the release of the constituents to the environment, through recycling, or treatment. As a result the Agency is modifying the exemption to include the mass destroyed through treatment in the mass balance. The Agency believes that, while leak detection systems and repair programs are necessary to the safe and efficient management of wastes, these should be standard operating practices. Thus, the Agency believes that a credit or allowance for these management practices is not warranted.

One commenter believes that wastes are differentiated by treatability groups (wastewater or non-wastewater) while exemptions are by listing code. The commenter notes that wastes can change treatability group as a result of treatment, and requests clarification of EPA's intentions concerning K157 nonwastewaters generated through permissible switching of treatability groups when steam stripping generates wastewater bottoms (<1% total organic carbon, <1% total suspended solids) and non-wastewater overheads (>1% TOC). The commenter wishes to determine if K157 nonwastewaters derived as a result of steam stripping and then incinerated generating a K157 derived from wastewaters (scrubber waters) still meets the exemption.

Waste meeting the hazardous wastes listing descriptions of K156 and K157 are differentiated by their treatability group at the point of generation. Carbamate process wastes less than 1% total organic carbon (TOC) and less than 1% total suspended solids (TSS) are aqueous wastes designated as Hazardous Waste No. K157. Process wastes greater than 1% are designated as Hazardous Waste No. K156. Subsequent treatment does not change a waste's hazardous waste number. The commenter has described a case where K157 wastewaters are treated to separate an organic laden stream which is incinerated, and incinerator condensate returned for wastewater treatment. The Agency defines a hazardous wastes listing at the point of generation. In the

case where wastewaters are removed from the process and subsequently treated, all the streams are derived from K157, and therefore all the streams are potentially exempt if a mass balance shows that the maximum weekly usage of formaldehyde, methyl chloride, methylene chloride, and triethylamine (including all amounts that can not be demonstrated to be reacted in the process, destroyed through treatment, or is recovered, i.e., what is discharged or volatilized) divided by the average weekly flow of process wastewater prior to any dilutions does not exceed a total of 5 parts per million by weight. If the facility can demonstrate that the amount of these constituents discharged or volatilized is less than 5 ppm then the K157 waste is exempt.

2. K156 Exemption

Several commenters believe that the exemption outlined in the K157 exemption should be expanded to include organic wastes from the production of carbamates and carbamyl oximes (i.e. K156 wastes). As an option some commenters believe the same approach should be extended to other carbamate K-listed wastes (e.g., incinerator scrubber blowdown). Specifically, one commenter noted that K156 scrubber water and steam stripping bottoms generally no longer contain VOCs and the carbamate component has been treated. They therefore believe that the proposed exemption should be modified to include K156 wastes which contain <5 ppm of methyl chloride, formaldehyde, triethylamine, and/or methylene chloride) if the wastes are treated in biological treatment systems. This commenter believes that without the exemption, the mixture and derivedfrom rule will force manufacturers to collect incinerator scrubber waters or stripper bottoms derived from treatment of K156 wastes for off-site management or collect all K156 organic wastes for off-site management. The commenters also believe that the lack of an exemption for K156 non-wastewaters equivalent to that for K157 wastewaters would result in needless off-site shipments of wastes.

The Agency has considered the expansion of the exemptions for other wastes proposed for listing. For untreated K156 wastes the Agency does not believe that it is appropriate to provide an exemption similar to K157 wastes. K156 wastes typically contain high concentrations of organic solvents such as xylene, methanol, methyl isobutyl ketone, toluene, acetone, and triethylamine and significant concentrations of such compounds as

benomyl, carbendazim, carbaryl, and carbofuran. The Agency used a multipathway risk assessment and found that the constituents found in these wastes presented a risk to human health and the environment if the waste is improperly managed. Thus, the Agency does not feel an exemption for untreated K156 wastes is warranted.

The Agency believes, however, that some K156 wastes deserve the same type of exemption as K157 wastewater. Wastes derived from the treatment of K156 wastes such as incinerator condensate waters and other dilute wastes present risks similar to those from K157 wastewaters. For example, a carbamate process unit may generate an organic stream (i.e., >1% TOC) that is identified as K156. This material then undergoes incineration or steam stripping generating a wastewater stream (e.g., scrubber blowdown) with <1 % TOC. This wastewater is very similar in constituent type and concentration as a K157 waste yet carries the K156 designation as a result of the derived-from rule (40 CFR 261.3(c)(2)).

Commenters noted that these derived from wastes are currently managed in the same treatment systems used for K157 wastes, and that these are the same treatment systems sampled and evaluated by the Agency during it multipathway risk assessment. Because wastewater "derived from" K156 wastes contain pollutant levels which would be safe to undergo biological treatment are currently managed with the K157 wastewaters the Agency studied, the Agency has considered the expansion of the wastewater exemption to include wastewaters derived from the treatment of K156. The risks of concern the Agency measured for these units were from the volatilization of waste contaminants. Since the K156 derived from wastewaters have such similar properties and constituent concentrations and continue to be treated in tanks, the Agency concludes that these derived-from wastes deserve to be provided the same regulatory coverage as K157 wastes. Furthermore, the Agency believes that the lack of a similar exemption for K156 may reduce the incentives for source reduction by facilities. Source reduction practices would result in the production of smaller volumes of more concentrated wastes and these wastes would likely be K156 rather than K157.

The Agency has therefore added a concentration-based exemption for wastes derived from K156 wastes. The exemption reads:

§ 261.4(a)(2)(iv) * * *