from this data that the concentration of carbon disulfide formed in a hypothetical leaching test would be toxic even when assuming a 100 fold dilution/attenuation factor. Record sampling during the industry study has also found decomposition products such as methylisothiocyanate and nnitrosodimethylamine in the wastes sampled. Methylisothiocyanate is reactive and toxic, and nnitrosodimethylamine is a known carcinogen. In addition, once released into the environment dithiocarbamate metal salts degrade or exchange metal ions, producing free metals ions. Finally, the ability to form other toxic substituents was documented during a spill of metam sodium (a dithiocarbamate) that had catastrophic environmental impacts on the surrounding environment along a 45mile stretch of the Sacramento River and portions of Lake Shasta. As a result, EPA believes that regulation of dithiocarbamate wastes as hazardous wastes is necessary because of the reactivity and aquatic toxicity of this class of chemicals.

D. Conflict With Other Regulatory Programs or Initiatives

Several commenters believe that EPA should not proceed with the listing because these wastes are, or will be regulated under Clean Water Act (CWA), Clean Air Act (CAA) and other provisions of RCRA. Furthermore, the commenters believe EPA should not add additional wastes to the listings until the issues regarding the definition of solid wastes resulting from the courts decision invalidating the mixture and derived-from rules in Shell Oil decision (Shell Oil v. EPA, 950 F.2d 751, D.C. Cir. 1991) have been resolved. Specifically, the commenter believes that the listings should be deferred until the rule resulting from the work of the Definition of Solid Waste Task Force and the Hazardous Waste Identification Committee are finalized because these may profoundly impact the regulatory classification of wastes. Another commenter believes residues from the treatment of listed wastes should be provided a de minimis exit from RCRA Subtitle C

The Agency noted in the proposal that significant regulatory gaps currently exist between RCRA regulation of air emissions from hazardous waste management and the CAA regulation. Although future regulations are planned in these areas, the coverage and scope of future regulations is uncertain and does not act to mitigate existing risks. The Agency has determined that risks posed by carbamate waste management should be controlled through regulation under RCRA. Potential future regulation will be developed with consideration given to the then-existing regulatory scheme as well as the need to close any remaining regulatory gaps that are beyond the narrow scope of the carbamate listing determinations in this rulemaking. The Agency would also like to note that the HWIR rule is not designed to limit entry to the hazardous waste regulatory system but is a system where listed wastes may be able to be easily removed from the hazardous waste management system.

E. Constituents of Concern for Appendix VII

Some commenters believe that several constituents were included on appendix VII (i.e., the appendix that identifies the constituents of concern that are the basis for listing a waste) even though they were measured in the wastes at concentrations below health based levels in multipathway risk assessment. Commenters also believe that the format of listings is inconsistent with previous appendix VII listings. Specifically, the commenters believe that EPA has in the past listed only the metal or organic compounds directly related to the waste and none of the solvents which may be present. The commenters believe that appendix VII should only include the hazardous constituents that are specific carbamates, carbamoyl oximes, thiocarbamates and dithiocarbamates.

Wastes may be listed as hazardous if they contain toxic constituents identified in appendix VIII of 40 CFR part 261 and the Agency concludes, after considering eleven factors enumerated in section 261.11(a)(3), that the waste is capable of posing a substantial present or potential hazard to human health or the environment when improperly managed.

To determine whether a waste is hazardous for toxicity under 40 CFR 261.11(a)(3), EPA determines the presence of an appendix VIII constituent, regardless of concentration. EPA then examines all the health effects data on that constituent, along with other factors (generally related to exposure) required to be considered under 40 CFR 261.11(a)(3). Concentration of the hazardous constituent is among those factors (40 CFR 261.11(a)(3)(ii)). Other factors include the plausible types of mismanagement scenarios to which the wastes could be subjected and the potential of the constituent or any toxic degradation product to migrate from waste into the environment under the improper management scenarios (40 CFR 261.11(a)(3)(iii) and (vii). These

factors are evaluated to decide whether to list the waste as a hazardous waste.

After determining that a waste should be listed as hazardous, EPA would then list in appendix VII the constituents that led to that listing. The Agency has reassessed each of the constituents listed as a basis of listing and has limited the hazardous constituents for the basis of listing to those constituents which were found to present health based or environmental risks in the multipathway analysis, and to toxic products present at percent levels which are potentially hazardous to human health and the environment. Therefore, the Agency has removed acetone, hexane, methanol, methyl isobutyl ketone, and xylene from the appendix VII basis of listing, because these substances were not significant in the risk analysis. The Agency has also corrected the basis of listing for K156 to include formaldehyde and the basis of listing K161 to include antimony and arsenic, because these constituents where significant in the risk assessment.

The commenters also believe that the terms thiocarbamates, Not Otherwise Specified (N.O.S.) and dithiocarbamates, N.O.S. are overly broad, include a variety of compounds for which EPA has not established health or environmental hazards, are not hazardous constituents on appendix VIII and are not proposed for inclusion on appendix VIII. Therefore, the commenter concludes that generic categories are inappropriate for inclusion in appendix VII listings. The Agency has deferred action on these generic categories, and may further address the addition of the generic categories to appendix VIII in a future proposal.

F. Constituents of Concern for Appendix VIII

Several commenters believe that many of the additions to appendix VIII (i.e., the appendix that contains a list of hazardous constituents to be evaluated for listing determinations (see 40 CFR 261.11)) were inappropriate. One commenter believes that the rule adds constituents to appendix VIII based on presence of a constituent rather than its concentration. Many commenters believe that constituents of concern should be limited to constituents that are present at concentrations that threaten human health and the environment. A commenter believes that constituents can only be added to appendix VIII if they are toxic, carcinogenic, mutagenic, or teratogenic to humans and other life forms and that the Agency has added constituents with