a factor of greater than 25 percent (1.25X) to produce residues over the section 408 tolerance.

The second factor currently relied upon by EPA is the degree of variability in the analytical method used to measure residue levels in the field and processing studies and for enforcement of the tolerance. If residues do not concentrate to a greater degree than the variability in the methods, no residues over the section 408 tolerance could be reliably detected.

3. Other factors potentially relevant to whether residues exceed the section 408 tolerance. In the past, EPA has generally not taken into consideration various other factors that may explain why, despite the fact that a processing study suggests there is a possibility of residues greater than the RAC tolerance, that event seems to occur infrequently. One factor that lessens the possibility of residues over the section 408 tolerance in processed food is that EPA's judgment concerning whether such residues could occur assumes that the pesticide will be used at the maximum label rate and applied the maximum number of times permitted, and that the crop will be harvested at the shortest preharvest interval allowed. Frequently, however, these maximum application and harvest practices are not followed resulting in residues far below tolerance levels in the raw crop, with correspondingly lower levels in the processed food.

A second factor that serves to result in lower residue levels is that tolerance values are set to reflect the maximum residue level that could result from maximum legal application and harvest practices but field trials generally show a wide range of residue levels even when maximum legal application and harvest practices used in each trial. Thus, average residue values from such field trials tend generally to be significantly below the maximum residue level found in field trials and, thus, also significantly below the tolerance level.

A third factor that may explain lower observed residues in processed foods is that the processing of many crops involves mixing or blending of large amounts of the raw crop. Oftentimes this can result in significant lowering of residue values as untreated crop is blended with treated crop. Further, this blending accentuates the above two factors as lightly treated crops are mixed with crops having received maximum treatment and high and low level residues from crops receiving maximum treatment are mixed.

Another reason why residues over the section 408 tolerance may not occur in

processed food is that pesticides often degrade significantly during the time in which the crop is transported and stored prior to processing. Thus, even if crops bearing tolerance level residues at harvest were the only ingredient used in food processing, any concentration of residues might be offset by normal degradation of residues.

NFPA suggests additionally that the chance of residues over the section 408 tolerance is not great because of various steps taken by food processors. NFPA cites "supervision of growers' pesticide practices, careful and informed buying practices, [and] analysis of raw product" as actions which serve to reduce residues. Further, various commenters have contended that residues over the section 408 tolerance in some processed foods could be avoided by restrictions on pesticide use to crops grown for the fresh market.

4. Evaluation of factors. Below, EPA evaluates its concentration policy including EPA's use of processing studies, the factors considered by EPA in evaluating whether processing studies show the possibility of residues over the section 408 tolerance, and the relevance of the various reasons noted above why overtolerance residues infrequently occur.

Processing studies. EPA guidelines on residue data specify that processing studies should "simulate commercial processing as closely as possible.' Pesticide Assessment Guidelines, Subdivision O at 21 (1982). Data from such studies, EPA believes, remain the most relevant information in determining whether residues over the section 408 tolerance may occur. Because section 408 tolerance values represent a level of residues which field trial studies show can occur, data from a processing study showing concentration can be a good indicator regarding the possibility of overtolerance residues in processed food. EPA has not issued extensive industry-by-industry guidance on what constitutes "commercial processing" but rather has left it to the pesticide manufacturer to insure that modern commercial processing is reflected in the processing studies. Thus, EPA disagrees with comments by NFPA and other commenters which suggest it is EPA which is at fault for not taking into account practices such as washing and peeling that routinely occur during processing. If those practices are a part of commercial processing for certain foods and are not reflected in the processing studies designed and submitted by pesticide manufacturers, the pesticide manufacturers need to

provide EPA with data that are truly representative of the industry practice.

Rounding. To a limited extent, EPA has considered the rounding up that occurs in the selection of the section 408 tolerance value in making concentration determinations. EPA believes the degree of rounding remains a legitimate consideration in determining the likelihood that processing may produce residues in processed food greater than the section 408 tolerance. Moreover, as noted below, EPA believes it is appropriate to consider the difference between residue levels that can occur on crops and the section 408 tolerance level in evaluating the possibility of residues over the section 408 tolerance in processed food.

But EPA is concerned that its past practice of rounding up has resulted in section 408 tolerances being set at a level higher than is necessary to cover legally treated crops. EPA is currently examining whether older section 408 tolerances have been set at inappropriately high levels owing to rounding or for other reasons. EPA is also exploring whether there might not be statistical techniques for better assigning section 408 tolerance levels. To the extent EPA alters its approach to selecting section 408 tolerance levels, these revised section 408 levels will need to be considered in making determinations under the concentration

Variability of methods. EPA continues to believe that the variability of the analytical method should be evaluated in determining whether residues over the section 408 tolerance are likely to be reliably detected despite a processing study showing concentration in fact. The aim of the concentration policy is to identify those uses which can produce residues over the section 408 tolerance in processed food. If any possible concentration is so low that it could not be clearly identified by the relevant analytical method, then, in fact, instances of residues over the section 408 tolerance in processed food would not be expected. The degree of variability in analytical methods must be assessed on a case-by-case basis. Generally, the variability in analytical methods suggests that residues over the section 408 tolerance are not likely to be reliably detected where processing studies show concentration factors in the range of 1.1X to 1.5X.

Treatment rates and processor control. EPA believes that it is appropriate to assume that some growers will treat a portion of their crop at the maximum treatment rate allowed by the label. EPA's experience has shown that due to unexpected weather