

EPA's Economic Analysis

The EPA's Economic Analysis seems unnecessarily complicated. EPA presents four tables in order to show how the proposed tolerance fees were derived, but, as Table 1 of this summary shows, only one is needed, albeit with some footnotes. In short, deriving the proposed tolerance fees for petitioned tolerances requires four basic steps: (1) the number of Full Time Equivalents (FTEs) required to process one petition of each type of tolerance is multiplied by the cost per FTE to get the cost per petition; (2) for applicable types of tolerances, the cost of registration is subtracted from the cost per petition; (3) the resulting cost per petition (less registration costs) is divided by the average number of tolerances set for a petition of each type to derive the cost per tolerance, and; (4) the unadjusted cost per tolerance is multiplied by an adjustment factor of 1.48 to derive the adjusted tolerance fee. The fees for tolerance reassessments are calculated in much the same manner except that no registration costs are subtracted and, in the case of one type of reassessment, maintenance fees are subtracted from the cost per tolerance prior to applying an adjustment factor of 1.23. The derivation of the fees for tolerance reassessments is presented in Table 2.

The cost per FTE in Tables 1 and 2 is calculated based on an average salary of \$78,000 adjusted by the overhead factors provided in Exhibits 2 and 3 of EPA's Economic Analysis. In the case of petitioned tolerances, the overhead factor of 1.57 is multiplied by \$78,000 and the result is then added to \$78,000. In effect, the cost per FTE is \$78,000 times 2.57, or \$200,460. In the case of tolerance reassessments, the overhead factor is 2.18. Thus, the cost per FTE for tolerance reassessments is \$78,000 times 3.18, or \$248,040. However, these calculations are not presented anywhere in the Economic Analysis. It is also interesting to note that the average salary of \$78,000 is not presented once in the Economic Analysis.

The major flaw in EPA's Economic Analysis is that it does not detail how the FTE estimates presented in Exhibits 4 and 5 (and shown in Tables 1 and 2 of this summary) have been derived. Most importantly, the Economic Analysis does not present the differences between the number of FTEs required to process petitioned

tolerances prior to this Proposed Rule and after. One might argue that this should have been the primary focus of the Economic Analysis. In the Proposed Rule, EPA cites several reasons for updating the tolerance fee schedule including: expanded data requirements, changes in risk assessment methods, increasing complexity of scientific review, and provisions of the 1996 Food Quality Protection Act (FQPA) which amended the Federal Food Drug and Cosmetic Act (FFDCA). However, the Economic Analysis does not explain how many additional FTEs are required to account for each of these changes. The Agency has not explained how many additional FTEs are attributable to expanded data requirements, changes in risk assessment methods, and so on. Without such an accounting of additional FTEs expended on each type of tolerance, industry cannot assess the validity of the Agency's FTE estimates or confirm the incremental impacts of this rulemaking¹. Because this information has not been provided in the Economic Analysis, and, because the entire analysis is based on unexplained estimates of FTEs expended, the Economic Analysis as a whole can neither be adequately supported nor critiqued.

Similarly, EPA does not provide an explanation for why the reassessment of certain tolerances would require more FTEs than assessing a brand new petitioned tolerance. It is understood that EPA may feel the need to review older toxicological studies to assess their validity and that the Agency may require new and/or additional information. However, the worst case scenario would be that EPA simply discards all old information and requires the submission of all new toxicological data. If this were the case, it would seem that there is no difference, in terms of the amount of effort required to perform the assessment, between a reassessed tolerance and a new petitioned tolerance. Presumably, some of the old information submitted with the original information is still valid; meaning that the Agency would already have between 0% and 100% of the total amount of information required to set the tolerance. EPA has not adequately explained how it could possibly require more data for a reassessment than it does for a new petitioned tolerance. Nevertheless, the Agency's FTE estimates

¹ It is understood that the FTEs presented for tolerance reassessments are new and thus incremental as a result of this rule. However, in the case of petitioned tolerances the number of FTEs that are incremental as a result of each new data requirement is unknown.

indicate that reassessing a tolerance may, in some cases, require more effort than would starting from scratch and setting a brand new tolerance.

The Inequity of the Adjustment Factors and EPA's Lack of Authority for Applying Them

Tables 3 and 4 of this summary present, respectively, the derivation of the 1.48 adjustment factor that EPA has applied to petitioned tolerances and the 1.23 adjustment factor applied to tolerance reassessments. EPA did not present the derivation of these adjustment factors in the Economic Analysis itself; the derivation presented here was discovered by directly contacting the Office of Pesticide Programs at EPA. The premise of applying the adjustment factor is that EPA plans to waive tolerance fees for Biopesticides, Minor Uses, Emergency Exemption Tolerances, and Revocations because such tolerances and reassessments are in the public interest; however, the Agency feels that it must somehow recoup the costs of processing these tolerances, and so, has decided to add these costs to the fees charged for other types of tolerances.

While the EPA may have the authority to recoup its costs for the processing of tolerance actions, the FFDCA does not specifically authorize EPA to apply an adjustment factor to add costs to one type of tolerance that the Agency **chooses** not to collect for another type of tolerance. In fact, applying an adjustment factor is contrary to the purpose of collecting tolerance fees in the first place, namely, to force those who are imposing on society the cost of setting tolerances to pay those costs. In compliance, with both this purpose and with the law, EPA could choose to collect tolerance fees from biopesticide registrants, registrants of minor use pesticides, and applicants for emergency exemption tolerances. The EPA has decided that (relative to major use, chemical pesticides) tolerances for biopesticides, minor use pesticides, and emergency exemptions are in the public interest and therefore should not require the payment of a tolerance fee. This does not mean that registrants of major use chemical pesticides should be forced to pay for those tolerances to be set. The registrants of certain pesticides should not be forced to subsidize actions taken in the public interest, especially when such actions directly benefit their competitors.

TABLE 3
Derivation of Adjustment Factor for Petitioned Tolerances

Type of Tolerance	Annual Cost
Non-Waived Tolerance Fees	<u>\$4,929,611²</u>
Biopesticides (fees waived)	\$1,012,323 ³
Minor Uses (fees waived)	\$174,111 ⁴
Emergency Exemption Tolerances (fees waived)	\$1,190,732 ⁵
Total	<u>\$7,306,777</u>

\$7,306,777 / \$4,929,611 = 1.482

TABLE 4
Derivation of Adjustment Factor for Tolerance Reassessments

Type of Reassessment	Annual Cost
Non-Waived Reassessment Fees	<u>\$10,908,810⁶</u>
Biopesticides (fees waived)	\$644,904 ⁷
Minor Uses (fees waived)	\$1,465,309 ⁸
Revocations (fees waived)	\$381,982 ⁹
Total	<u>\$13,401,005</u>

\$13,401,005 / \$10,908,810 = 1.228

² See Table A-3 in the Appendix.

³ Source: USEPA. Economic Analysis of the Proposed Tolerance Fee Schedule. March, 1999. Exhibit 4. Second to last column.

⁴ Source: Ibid. Exhibit 6. Second to last column.

⁵ Source: Ibid. Exhibit 6. Fourth column, eighth Row.

⁶ See Table A-4 in the Appendix.

⁷ Source: USEPA. Economic Analysis of the Proposed Tolerance Fee Schedule. March, 1999. Exhibit 5. Second to last column.

⁸ Source: Ibid. Exhibit 9. Eighth column.

⁹ Source: Ibid. Exhibit 9. Last column, tenth row.

The idea behind the collection of tolerance fees is this: without tolerances, too much of certain pesticides would remain on foods because their producers do not incur the full costs of such production (e.g., medical costs of pesticide poisoning). By imposing fees on registrants of chemical pesticide producers, such producers will raise their prices accordingly, forcing their customers to internalize the full costs of that production. If, in EPA's estimation, biopesticides, minor use pesticides, and emergency exemptions are in the public interest (i.e. the public is the beneficiary), then the public should be required to pay the cost of controlling the negative externalities associated with those pesticide uses (i.e. the cost of establishing tolerances).

This distribution of costs is also supported by at least 13 years of EPA policy. In EPA's Final Rule implementing the 1986 fee structure, the Agency states that "the cost of all waivers and refunds will be covered by Congressionally appropriated funds." That is, for at least the past 13 years EPA has not recovered the full cost of tolerance setting entirely from industry. The Agency has provided no justification for changing this policy. In fact, the 1986 Proposed Rule states that for emergency exemption tolerances, "given that the state governments would be paying the fees with taxpayer dollars, charging a fee would be contrary to the purposes of this proposal." EPA has not explained why registrants of other pesticides are being required to pay to have these emergency exemption tolerances set. The 1986 Proposed Rule also states for biopesticides that, "Although the Agency also believes that plant-pesticides are inherently lower risk, the fees cannot be routinely waived". Nevertheless, the proposed fee schedule indicates not only that these fees **are** being routinely waived, but also that registrants of chemical pesticides are being required to pay for the establishment of tolerances for these biopesticides. This is highly inequitable given that biopesticide manufacturers are often in direct competition with chemical pesticide manufacturers. The 1986 Proposed Rule goes on to state that for minor use tolerance actions, "Fees for pesticide chemicals used solely on minor uses, however, cannot be automatically exempt from the proposed fees". In direct contradiction of this statement, however, the Economic Analysis indicates that minor uses will not only be automatically exempt from the payment of fees, but also that registrants of major use pesticides will be

required to pay to have tolerances set for minor uses. As shown very clearly in Tables 3 and 4, EPA plans to charge registrants of major use chemical pesticides for the establishment of tolerances on biopesticides and minor uses as well as for emergency exemption tolerances and tolerance revocations.

The FFDCFA, as amended by the 1996 FQPA, states that “regulations may further provide for waiver or refund of fees in whole or in part when in the judgment of the Administrator such a waiver or refund is equitable and not contrary to the purposes of this subsection.” Despite the fact that the Proposed Rule states in three separate places that waiving fees for minor uses, biopesticides, and emergency exemption tolerances is contrary to the purposes of the proposal, EPA plans to waive these fees anyway and charge the remaining pesticide registrants for the costs of establishing these tolerances. Just as importantly, these fees, by law, cannot be waived if such a waiver would be inequitable. Waiving these fees is not unfair as long as the costs of setting the tolerance are paid by Congressionally appropriated funds, as has been the policy for the last 13 years. Requiring the payment of such costs from other pesticide registrants cannot be considered equitable. This is especially true given that the producers of biopesticides, and pesticides for minor uses may be in direct competition with the registrants of chemical pesticides who are paying to have tolerances set for biopesticides and minor uses. EPA has not explained how it can be equitable to have a manufacturer or formulator of a pesticide pay the costs incurred by its competitors. In other words, unless EPA can show that such a distribution of costs is indeed equitable, it appears to be forbidden, by law, from applying the adjustment factors of 1.48 for petitioned tolerances and 1.23 for tolerance reassessments.

Inadequate Explanation of Why Overhead Factors for Petitioned Tolerances and Tolerance Reassessments are Different

The EPA's Economic Analysis of the Proposed Tolerance Fee Schedule indicates, in Exhibits 2 and 3, that the overhead factor applied to tolerance reassessments (2.18) is 61% greater than that applied to petitioned tolerances (1.57)¹⁰. The Agency has not provided an adequate explanation of why this would be the case. For example, Agency Overhead, which, according to Economic Analysis includes buildings, rent, security, printing, etc., for reassessments is nearly double that for petitioned tolerances, \$2.5 Million versus \$1.3 Million respectively. EPA has not explained why one group of EPA employees with similar responsibilities and the same average salary require nearly twice as much space, security, printing, electricity, water, etc., per employee as their counterparts, especially if reassessment personnel are either located in the same building as petitioned tolerance personnel, or are the same employees. This is an unexpected situation which EPA has not accounted for.

Similarly, OPP Administration Overhead, which includes travel, training, supplies, and equipment, for reassessments is nearly double that for petitioned tolerances, \$774,000 compared to \$418,000 respectively. Again, the Agency has not adequately described why one group, on a per-employee basis, needs more travel time, training, supplies or equipment. The other components of overhead in Exhibits 2 and 3 involve staff, management, clerical and contract support. EPA has suggested that one of the reasons for the discrepancy between overhead factors is that because the reassessment program is relatively new, more support hours and resources are required per Full Time Equivalent. This is a perfectly acceptable explanation for support staff requirements but does not address the issues of Agency Overhead or OPP Administration Overhead. EPA should justify why these types of overhead factors are not applied evenly to all employees in the Agency or in the Office of Pesticides.

¹⁰ *Economic Analysis of the Proposed Tolerance Fee Schedule*. USEPA. March, 1999. p. 4

Furthermore, the support overhead factors assume that the reassessment program will continue to be new, and thus need additional support per FTE, forever. The Economic Analysis carries over this support overhead factor from the 1995/96 budget plan to the present and on into the future. It is only reasonable to assume that the additional support required to start-up the reassessment program in its first year will not be necessary in its fifth year or its tenth year. However, the overhead factor in the Economic Analysis, and, therefore, the fees charged for tolerance reassessments do not take this factor into account. EPA has not provided an explanation of why additional support should be required for the reassessment program in perpetuity. As staff within the reassessment program become more experienced less support may be needed. This learning curve should continue until the support overhead factor for the reassessment program decreases to where it is roughly equal to that of the staff that processes petitioned tolerances. If the EPA wishes to charge industry for the Agency's adjustment to the new program, the overhead factor may be reassessed and adjusted at regular intervals. For the purposes of the Economic Analysis, however, EPA should justify why the same overhead factor has not been applied to both the costs of processing petitioned tolerances as well as tolerance reassessments.

It should also be noted that industry representatives feel that EPA's estimates of overhead factors are unusually high. In comments prepared on behalf of the pesticide industry, Erik Lichtenberg, Ph.D. states, "Overhead rates at public research universities average about 47%, however, only 30% of the rate claimed by the Agency for petitioned tolerance actions and 22% of the rate claimed by the Agency for tolerance reassessments." Certainly EPA overhead should not be three to five times higher than that experienced by research universities. EPA has not justified why either of its two overhead factors are so high.

Recalculation of Fees

Tables 5 and 6 present EPA's proposed tolerance fees side-by-side with fees that have been recalculated assuming: (1) that no adjustment factor should be applied to the fees because waived fees should be covered by Congressionally appropriated funds, and; (2) that the overhead factor used to calculate fees should be the same for tolerance reassessments as for petitioned tolerances. In these tables, it is assumed that the appropriate overhead factor is 1.57. Thus, there is no change in the overhead factor applied to the recalculated fees for petitioned tolerances. However, the same 1.57 overhead factor is applied to tolerance reassessments rather than the 2.18 factor assumed by EPA.

In the case of petitioned tolerances, the difference between EPA's fees and the recalculated fees, as shown in Table 5, is equal to the adjustment factor of 48%. That is, based on the arguments provided previously in this summary the recalculated fees are the same as EPA fees except that the adjustment factor of 1.48 has not been applied. In the case of tolerance reassessments, the difference between EPA fees and the recalculated fees for most types of reassessments is 52%. This difference accounts not only for not applying the 23% adjustment factor used by EPA on reassessment fees, but also for the difference in the cost per FTE that results from using the 1.57 overhead factor rather than the 2.18 overhead factor used by EPA. Thus, instead of assuming \$248,040 per FTE as EPA has done, the recalculated fees assume a cost of \$200,460 per FTE.

The one exception to the 52% difference between EPA fees and recalculated fees is the first use of an uncompleted reregistration eligibility decision. The difference between the EPA fee and the recalculated fee for this type of reassessment is 209%. The reason is that maintenance fees are assumed to cover a portion of the costs of these reassessments, and the relative portion covered by maintenance fees is much greater after the cost per FTE is dropped from \$248,040 to \$200,460. This difference is

easily seen by comparing the second row of Table 2 to the second row of Table A-2 in the Appendix.

TABLE 5
Recalculation of Petitioned Tolerance Fees Excluding
the Adjustment Factor

Type of Tolerance	EPA Fees	Recalculated Fees ¹¹
New Food Use Active Ingredient – first use	\$504,400	\$340,782
- additional use	\$4,700	\$3,150
New Food Use of Registered Non-Food A.I. – first use	\$468,800	\$316,727
- additional use	\$4,700	\$3,207
New Use of Registered Food Use A.I.	\$16,900	\$11,395
Temporary Tolerance	\$51,200	\$34,579
Emergency Exemption Tolerance	\$0	\$0
A.I. Exemption	\$145,400	\$98,225
Tolerance Modification	\$4,400	\$3,001
Inert Tolerance	\$62,300	\$42,097
Inert Exemption	\$59,300	\$40,092
Antimicrobial Tolerance or Exemption	\$68,200	\$46,106

¹¹ See Table A-1 in the Appendix

TABLE 6
Recalculation of Tolerance Reassessment Fees Excluding
the Adjustment Factor and Excess Overhead

Type of Tolerance	EPA Fees	Recalculated Fees ¹²
Reregistration Eligibility Decisions	\$12,500	\$8,191
Uncompleted RED – first	\$227,700	\$73,782
- additional use	\$530	\$348
Post-1984 – first	\$289,800	\$190,437
- additional use	\$1,700	\$1,145
A.I. Exemption	\$20,600	\$13,509
Inert Tolerance	\$201,400	\$132,304
Inert Exemption	\$79,300	\$52,120
Revocation	\$0	\$0

¹² See Table A-2 in the Appendix

Tables 7 and 8 present the difference in the total annual cost to industry when using EPA's fees versus using the recalculated fees presented in Tables 5 and 6. The costs presented in these tables all assume that the Agency estimate of the number of FTEs per tolerance is a valid estimate. No estimates of fees based on either lower or higher FTE estimates have been made because there is insufficient information at this time to make such adjustments.

As Table 7 shows, by not applying the adjustment factor to petitioned tolerance fees, the pesticide industry as a whole will save \$2.4 million dollars per year over EPA estimates. Similarly, Table 8 demonstrates that using the recalculated fees rather than EPA fees for tolerance reassessments would save the industry roughly \$6 million dollars.

TABLE 7
Total Annual Cost to Industry of Petitioned Tolerances
Based on EPA Fees and Recalculated Fees

Type of Tolerance	Average Number of Non-Waived Tolerances per Year	EPA Fees	Total Annual Cost to Industry (EPA)	Recalculated Fees ¹³	Total Annual Cost to Industry (recalculated)
New Food Use A.I. – first use	6	\$504,400	\$3,026,400	\$340,800	\$2,044,800
- additional use	41	\$4,700	\$192,700	\$3,200	\$131,200
New Food Use of Non-Food A.I. – first use	2	\$468,800	\$937,600	\$316,700	\$633,400
- additional use	10	\$4,700	\$47,000	\$3,200	\$32,000
New Use of Food Use A.I.	66	\$16,900	\$1,115,400	\$11,400	\$752,400
Temporary Tolerance	4	\$51,200	\$204,800	\$34,600	\$138,400
Emergency Exemption	0	\$0	\$0	\$0	\$0
A.I. Exemption	1	\$145,400	\$145,400	\$98,200	\$98,200
Tolerance Modification	146	\$4,400	\$642,400	\$3,000	\$438,000
Inert Tolerance	1	\$62,300	\$62,300	\$42,100	\$42,100
Inert Exemption	4	\$59,300	\$237,200	\$40,100	\$160,400
Antimicrobial Tolerance or Exemption	10	\$68,200	\$682,000	\$46,100	\$461,000
Total			\$7,293,200		\$4,931,900

¹³ See Table A-3 in the Appendix

TABLE 8
Total Annual Cost to Industry of Tolerance Reassessments
Based on EPA Fees and Recalculated Fees

Type of Tolerance	Average Number of Non-Waived Tolerances per Year	EPA Fees	Total Annual Cost to Industry (EPA)	Recalculated Fees¹⁴	Total Annual Cost to Industry (recalculated)
R.E.D.s	83	\$12,500	\$1,037,500	\$8,200	\$680,600
Uncompleted RED – first use	17	\$227,700	\$3,870,900	\$73,800	\$1,254,600
- additional use	349	\$500	\$174,500	\$350	\$122,150
Post-1984 – first use	8	\$289,800	\$2,318,400	\$190,400	\$1,523,200
- additional use	13	\$1,700	\$22,100	\$1,100	\$14,300
A.I. Exemption	19	\$20,600	\$391,400	\$13,500	\$256,500
Inert Tolerance	1	\$201,400	\$201,400	\$132,300	\$132,300
Inert Exemption	68	\$79,300	\$5,392,400	\$52,100	\$3,542,800
Revocation	0	\$0	\$0	\$0	\$0
Total			\$13,408,600		\$7,526,450

Who Will Pay Reassessment Fees?

Pesticide industry representatives have expressed concern that there is no clear incentive for a pesticide registrant to pay a reassessment fee on a chemical for which there are multiple registrants. In the case of petitioned tolerances, the initial registrant is granted 10 years of exclusive rights to the data submitted for the registration and the subsequent setting of the tolerance. The initial registrant may choose to sell the rights to the data or may remain the sole registrant of the chemical for a period of ten years. This exclusivity provides an incentive to pay the tolerance fee for a particular pesticide formulation (e.g. \$504,357) because the initial registrant will be able either to charge a monopoly price for that formulation or charge competitors to enter the market for that chemical, whichever is more profitable. An exclusive right to the data used to obtain a registration and set a tolerance, is, in effect, an exclusive right to the use of the tolerance itself. In other words, despite protestations of both industry and EPA that “no one owns a tolerance”, data exclusivity does, in fact, provide the initial registrant with ownership of the tolerance for a period of ten years. After the period of exclusivity has ended, there is a five year period during which other companies may become registrants of the given pesticide and compete to sell that particular chemical provided they pay the initial registrant for the use of his data. If a new registrant supplies the pesticide to a new market, either that registrant or another interested party would have to pay to have an additional tolerance set (e.g. \$4,662). In short, whoever pays the tolerance fee has an economic incentive to do so, as the term ‘interested party’ implies.

In the case of tolerance reassessments, there will be less willingness to pay the tolerance fees because there will no longer be any exclusive rights to the data or the benefits therefrom – i.e. the tolerance set based on that information. This means that the property rights established by law¹⁵ for original petitioned tolerances do not exist for tolerance reassessments. The result of this fee structure is that all registrants may engage in a game of “chicken”, waiting for one of the other registrants to pay the full cost and then freely competing without paying anything. In the case of initial petitioned

¹⁴ See Table A-3 in the Appendix

tolerances, the incentive of exclusivity impels the initial registrant to pay the fee. Relative to the benefits of introducing a new product, the tolerance fee is less significant. However, in the case of reassessments, no such incentive exists, and, therefore, no registrant will likely be willing to pay the full fee.

EPA expects all registrants to determine amongst themselves how much of the fee each registrant should pay. However, the registrants may not reveal their true preferences or willingness to pay, knowing that because the tolerance is a common good, they can “free-ride” on the registrants that pay the fee. No registrant who pays to have the tolerance reassessed can exclude other registrants from reaping the benefits of having the tolerance reassessed. Thus, the information is a “common good”, and there is no incentive for registrants to reveal their willingness to pay and a very good incentive (paying a smaller portion of the fee) to understate their willingness to pay. Because the tolerance is a public, or common, good, the level of cooperation among competitors necessary for an equitable distribution of costs should not reasonably be expected by EPA. The Agency apparently either expects sufficient cooperation, or is simply not concerned with providing an equitable distribution of the costs among the registrants. The former is unreasonable, and the latter may lead to the revocation of multiple tolerances for many effective, inexpensive, and relatively safe, pesticides. If no other party is willing to pay the fee, or if there is insufficient information for such parties to pay this could have a significant impact not only on the pesticide industry itself but also more broadly on the economic stability and safety of agricultural production in the U.S..

The EPA seems to be relying upon market forces to drive registrants to pay. Unfortunately, the ‘free-rider’ problem is a failure in the market; or, rather, it exists because there are no private property rights to a reassessed tolerance and, thus, there is no market. A reassessed tolerance is common property among all registrants, and, so, no one registrant may be willing to pay for it, especially when he or she cannot capitalize on it exclusively. Because property rights have not been established for those registrants who pay tolerance fees, the Agency is creating a market failure. This

¹⁵ Section 3(c)(1)(F)(i) of the Federal Insecticide Fungicide and Rodenticide Act.

is ironic in that the tolerance fees are intended to correct a different kind of market failure (the negative externalities of pesticide use).

The 'free-rider' problem arises from tolerances as common property. The simplest solution to this problem, therefore, is to grant private property rights to the use of a tolerance. Assigning such rights to a tolerance allows only those registrants who own it to sell the product. In effect, this would make the payment of a tolerance fee the practical equivalent of a license to sell the product. This would require some arrangement by which the true willingness to pay of each registrant can be revealed. There may be several ways in which assigning such private property rights could be accomplished. Some possible options are listed below, followed by the pros and cons of each option:

- 1) EPA Allocates the costs of reassessing all tolerances among all current registrants
 - a) based on market share of the product, or volume of product sold
 - b) based on sales of the product to each crop for which a tolerance will be reassessed
 - c) based on a simple division by the number of registrants
 - d) options a, b, and c would require that EPA deny the use of the tolerances to those current registrants who refuse to pay.
 - e) options a, b, and c would require EPA to deny all new registration petitions for a number of years (e.g. 2, 3 or 5 years) unless a fair portion of the tolerance fee is paid.

- 2) EPA allows one registrant to pay the reassessment fee in full, EPA then denies all other registrants the right to use the tolerance unless a portion of the fee is paid.
 - a) the second registrant to pay will pay 1/2 of the fee to EPA and EPA will refund this 1/2 to the first registrant who paid the full fee.
 - b) the third registrant pays 1/3 of the total fee to EPA and EPA refunds 1/6 of the fee to each of the first two registrants.
 - c) etc.

3) Allow registrants who have paid the tolerance reassessment fees to sue those registrants who have not in order to recover costs.

Option 1(a):

PRO:

Eliminates the element of common property and firmly establishes that those registrants who pay the fees have the private and sole right to take advantage of a reassessed tolerance.

CON:

(1) In the past, EPA has considered determining market share to be exceedingly burdensome and any burden placed upon the Agency in solving this ‘free-rider’ problem will be passed on to the registrants in the form of higher fees. (However, it seems that the volume of the product sold could easily be used as a proxy for market share with only minimal burden upon the Agency.)

(2) EPA may not have the legal authority to allocate private property rights to a reassessed tolerance or a portion of a reassessed tolerance.

Option 1(b):

PRO:

(1) Eliminates the element of common property and firmly establishes that those registrants who pay the fees have the private and sole right to take advantage of a reassessed tolerance.

(2) Takes into account the fact that several tolerances for various raw agricultural commodities may exist for a single given pesticide. More equitable than option 1(a) given that different registrants may sell their product to customers who depend on different tolerances. Prevents registrants from being forced to pay for reassessing tolerances that they do not have an interest in maintaining.

CON:

(1) Determining who sells which chemical to whom and which crops that portion of sales is used upon would be a very complex and cumbersome undertaking requiring a much greater expenditure of resources than determining market share.

(2) EPA may not have the legal authority to allocate private property rights to a reassessed tolerance or a portion of a reassessed tolerance.

Option 1(c):

PRO:

(1) Eliminates the element of common property and firmly establishes that those registrants who pay the fees have the private and sole right to take advantage of a reassessed tolerance.

(2) Simple and would require very little effort on EPA's part.

CON:

(1) Some registrants will be asked to pay more than they have incentive to pay and others less than they have incentive to pay.

(2) Likely to have a negative effect on small businesses

(3) EPA may not have the legal authority to allocate private property rights to a reassessed tolerance or a portion of a reassessed tolerance.

Option 2:

PRO:

(1) Eliminates the element of common property and firmly establishes that those registrants who pay the fees have the private and sole right to take advantage of a reassessed tolerance.

(2) Neither EPA nor the registrants would need to continually recalculate fees for each registrant as various registrants drop out of the market over time.

CON:

EPA may not have the legal authority to allocate private property rights to a reassessed tolerance or a portion of a reassessed tolerance.

Option 3:

PRO:

May allow market forces to determine how much each registrant pays, rather than EPA.

CON:

- (1) Complicated and cumbersome.
- (2) The potential costs of litigation may exceed the cost of the tolerance fee itself.
- (3) No reason to believe that the decision reached by the courts would be any more equitable than a decision made by EPA.
- (4) Registrants currently do not have the right to sue other registrants for compensation

It seems unreasonable that EPA would not even attempt to solve a problem which may play havoc not only with the way in which tolerance reassessment fees are paid but also with the way in which some economical, safe, and effective agricultural products are made available (or unavailable) to the agricultural sector. EPA will instead rely upon market forces in a situation where the market has failed because the government has not established property rights. In fact, given that tolerance reassessments are not voluntary actions taken by registrants, EPA has proposed a regulation that actually creates a market failure. Thus, even though the reassessment fees themselves may not be arbitrary and capricious, the way in which registrants would respond to those fees and decide to pay them or not to pay them would be both arbitrary and capricious.

APPENDIX

TABLE 1
Derivation of Petitioned Tolerance Fees

	A	B	C = A*B	D	E = C-D	F	G= E/F	H	I = G*H
	FTEs Per Petition	Cost per FTE	Cost per Petition	Registration Fee¹	Cost per Petition Less Registration Fee	Average Number of Tolerances per Petition²	Unadjusted Fee per Tolerance	Adjustment Factor³	Adjusted Fee per Tolerance
New Food Use Active Ingredient – first use	1.8	\$200,460	\$360,828	\$20,046	\$340,782	1	\$340,782	1.48	\$504,357
- additional use	0.11	\$200,460	\$22,051	\$0	\$22,051	7	\$3,150	1.48	\$4,662
New Food Use of a Registered Non-Food A.I. – first use	1.58	\$200,460	\$316,727	\$0	\$316,727	1	\$316,727	1.48	\$468,756
- additional use	0.08	\$200,460	\$16,037	\$0	\$16,037	5	\$3,207	1.48	\$4,797
New Use of a Registered Food Use A.I.	0.36	\$200,460	\$72,166	\$0	\$72,166	6.333	\$11,395	1.48	\$16,864
Temporary Tolerance	0.79	\$200,460	\$158,363	\$20,046	\$138,317	4	\$34,579	1.48	\$51,177
Emergency Exemption Tolerance	0.09	\$200,460	\$18,041	\$0	\$18,041	1.92	\$9,397	1.48	\$13,907
A.I. Exemption	0.59	\$200,460	\$118,271	\$20,046	\$98,225	1	\$98,225	1.48	\$145,374
Tolerance Modification	0.19	\$200,460	\$38,087	\$0	\$38,087	12.69	\$3,001	1.48	\$4,441
Inert Tolerance	0.31	\$200,460	\$62,143	\$20,046	\$42,097	1	\$42,097	1.48	\$62,303
Inert Exemption	0.2	\$200,460	\$40,092	\$0	\$40,092	1	\$40,092	1.48	\$59,336
Antimicrobial Tolerance or Exemption	0.33	\$200,460	\$66,152	\$20,046	\$46,106	1	\$46,106	1.48	\$68,237

¹ Source: USEPA. Economic Analysis of the Proposed Tolerance Fee Schedule. March, 1999. Exhibit 6a. The annual registration fee revenue is divided by the average number of petitions registered per year, which is provided in Exhibit 4 of the Economic Analysis. Thus, it is assumed that registration activities require 0.1 FTEs per petition.

² Source: USEPA. Economic Analysis of the Proposed Tolerance Fee Schedule. March, 1999. Exhibits 4 & 6. The number of tolerances provided in Exhibit 6 was divided by the number of petitions provided in Exhibit 4.

³ The derivation of this Adjustment Factor is provided in Table 3 of this summary.

TABLE 2
Derivation of Tolerance Reassessment Fees

	A	B	C = A*B	D	E = C/D	F	G= E-F	H	I = G/H
	FTEs Per Petition	Cost per FTE	Cost per Petition	Average Number of Tolerances per Chemical¹	Cost per Tolerance	Per Tolerance Cost Covered by Maint. Fees	Unadjusted Fee per Tolerance	Adjustment Factor²	Adjusted Fee per Tolerance
Reregistration Eligibility Decisions	1.11	\$248,040	\$275,324	27.17	\$10,135	\$0	\$10,135	1.23	\$12,466
Uncompleted RED – first use	2.34	\$248,040	\$580,414	1	\$580,414	\$395,294	\$185,119	1.23	\$227,697
- additional use	0.06	\$248,040	\$14,882	34.53	\$431	\$0	\$431	1.23	\$530
Post-1984 – first use	0.95	\$248,040	\$235,638	1	\$235,638	\$0	\$235,638	1.23	\$289,835
- additional use	0.06	\$248,040	\$14,882	10.5	\$1,417	\$0	\$1,417	1.23	\$1,743
A.I. Exemption	0.62	\$248,040	\$153,785	9.2	\$16,716	\$0	\$16,716	1.23	\$20,560
Inert Tolerance	0.66	\$248,040	\$163,706	1	\$163,706	\$0	\$163,706	1.23	\$201,359
Inert Exemption	0.26	\$248,040	\$64,490	1	\$64,490	\$0	\$64,490	1.23	\$79,323
Revocation	0.14	\$248,040	\$34,726	10.09	\$3,441	\$0	\$3,441	1.23	\$4,233

¹ Source: USEPA. Economic Analysis of the Proposed Tolerance Fee Schedule. March, 1999. Exhibits 5 & 9. The number of Tolerances provided in Exhibit 9 was divided by the number of chemicals provided in Exhibit 5

² The derivation of this Adjustment Factor is provided in Table 4 of this summary.

TABLE A-1
Recalculation of Petitioned Tolerance Fees

	A	B	C = A*B	D	E = C-D	F	G= E*F
	FTEs Per Petition	Cost per FTE	Cost per Petition	Registration Fee	Cost per Petition Less Registration Fee	Average Number of Tolerances per Petition	Unadjusted Fee per Tolerance
New Food Use Active Ingredient – first use	1.8	\$200,460	\$360,828	\$20,046	\$340,782	1	\$340,782
- additional use	0.11	\$200,460	\$22,051	\$0	\$22,051	7	\$3,150
New Food Use of a Registered Non-Food A.I. – first use	1.58	\$200,460	\$316,727	\$0	\$316,727	1	\$316,727
- additional use	0.08	\$200,460	\$16,037	\$0	\$16,037	5	\$3,207
New Use of a Registered Food Use A.I.	0.36	\$200,460	\$72,166	\$0	\$72,166	6.333	\$11,395
Temporary Tolerance	0.79	\$200,460	\$158,363	\$20,046	\$138,317	4	\$34,579
Emergency Exemption Tolerance	0.09	\$200,460	\$18,041	\$0	\$18,041	1.92	\$9,397
A.I. Exemption	0.59	\$200,460	\$118,271	\$20,046	\$98,225	1	\$98,225
Tolerance Modification	0.19	\$200,460	\$38,087	\$0	\$38,087	12.69	\$3,001
Inert Tolerance	0.31	\$200,460	\$62,143	\$20,046	\$42,097	1	\$42,097
Inert Exemption	0.2	\$200,460	\$40,092	\$0	\$40,092	1	\$40,092
Antimicrobial Tolerance or Exemption	0.33	\$200,460	\$66,152	\$20,046	\$46,106	1	\$46,106

TABLE A-2
Recalculation of Tolerance Reassessment Fees

	A	B	C = A*B	D	E = C/D	F	G= E-F
	FTEs Per Petition	Cost per FTE	Cost per Petition	Average Number of Tolerances per Chemical	Cost per Tolerance	Per Tolerance Cost Covered by Maint. Fees	Unadjusted Fee per Tolerance
Reregistration Eligibility Decisions	1.11	\$200,460	\$222,511	27.17	\$8,191	\$0	\$8,191
Uncompleted RED – first use	2.34	\$200,460	\$469,076	1	\$469,076	\$395,294	\$73,782
- additional use	0.06	\$200,460	\$12,028	34.53	\$348	\$0	\$348
Post-1984 – first use	0.95	\$200,460	\$190,437	1	\$190,437	\$0	\$190,437
- additional use	0.06	\$200,460	\$12,028	10.5	\$1,145	\$0	\$1,145
A.I. Exemption	0.62	\$200,460	\$124,285	9.2	\$13,509	\$0	\$13,509
Inert Tolerance	0.66	\$200,460	\$132,304	1	\$132,304	\$0	\$132,304
Inert Exemption	0.26	\$200,460	\$52,120	1	\$52,120	\$0	\$52,120
Revocation	0.14	\$200,460	\$28,064	10.09	\$2,781	\$0	\$2,781

TABLE A-3
Derivation of Annual Non-Waived Costs for Petitioned Tolerances

Type of Tolerance	Unadjusted Tolerance Fee	Number of Non-Waived Tolerances per Year	Annual Non-Waived Costs
New Food Use A.I. – first use	\$340,782	6	\$2,044,692
- additional use	\$3,150	41	\$129,154
New Food Use of Non-Food A.I. – first use	\$316,727	2	\$633,454
- additional use	\$3,207	10	\$32,074
New Use of Food Use A.I.	\$11,395	66	\$752,042
Temporary Tolerance	\$34,579	4	\$138,317
Emergency Exemption Tolerance	\$0	0	\$0
A.I. Exemption Tolerance	\$98,225	1	\$98,225
Modification	\$3,001	146	\$438,131
Inert Tolerance	\$42,097	1	\$42,097
Inert Exemption	\$40,092	4	\$160,368
Antimicrobial Tolerance or Exemption	\$46,106	10	\$461,058
Total			\$4,929,611

TABLE A-4
Derivation of Annual Non-Waived Costs for Reassessment Fees

Type of Tolerance	Unadjusted Reassessment Fee	Number of Non-Waived Tolerances per Year	Annual Non-Waived Costs
R.E.D.s	\$10,135	83	\$941,175
Uncompleted RED – first use	\$185,119	17	\$3,147,031
– additional use	\$431	349	\$150,421
Post-1984 – first use	\$235,638	8	\$1,885,104
– additional use	\$1,417	13	\$18,426
A.I. Exemption	\$16,716	19	\$317,599
Inert Tolerance	\$163,706	1	\$163,706
Inert Exemption	\$64,490	68	\$4,385,347
Revocation	\$3,441	0	\$0
Total			\$10,908,810