regulatory policies on matters that significantly or uniquely affect their communities.'' Today's rule does not impose new Federal mandates on Indian tribal governments and does not significantly or uniquely affect the communities of Indian tribal governments. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this rule.

List of Subjects in 40 CFR Part 70

Environmental protection, Administrative practice and procedure, Air pollution control, Intergovernmental relations, Operating permits, Reporting and recordkeeping requirements.

Authority: 42 U.S.C. sections 7401–7671q.

Dated: September 14, 1998.

Felicia Marcus,

Regional Administrator, Region 9.

Part 70, Chapter I, Title 40 of the Code of Federal Regulations is amended as follows:

PART 70—[AMENDED]

1. The authority citation for part 70 continues to read as follows:

Authority: 42 U.S.C. 7401, et seq.

2. Appendix A to part 70 is amended by revising paragraph (c) under Arizona to read as follows:

Appendix A to Part 70—Approval Status of State and Local Operating Permits Programs

* * * * *

Arizona

* * * * *

(c) *Pima County Department of Environmental Quality:*

(1) Submitted on November 15, 1993 and amended on December 15, 1993; January 27, 1994; April 6, 1994; April 8, 1994; August 14, 1995; July 22, 1996; August 12, 1996; interim approval effective on November 29, 1996; interim approval expires June 1, 2000.

(2) Revisions submitted on January 14, 1997; February 26, 1997; July 17, 1997; July 25, 1997; November 7, 1997; approval effective October 23, 1998; interim approval expires June 1, 2000.

* * * * *

[FR Doc. 98–25323 Filed 9–22–98; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 180

[OPP–300713; FRL–6029–3]

RIN 2070–AB78

Isoxaflutole; Pesticide Tolerance

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This regulation establishes a tolerance for combined residues of isoxaflutole [5-cyclopropyl-4-(2-methylsulfonyl-4-trifluoromethyl benzoyl) isoxazole] and its metabolites 1-(2-methylsulfonyl-4-trifluoromethylphenyl)-2-cyano-3-cyclopropyl propan-1,3-dione and 2-methylsulphonyl-4-trifluoromethyl benzoic acid, calculated as the parent compound, in or on field corn, grain; field corn, fodder; field corn, forage; and establishes a tolerance for combined residues of the herbicide isoxaflutole [5-cyclopropyl-4-(2-methylsulfonyl-4-trifluoromethyl benzoyl) isoxazole] and its metabolite 1-(2-methylsulfonyl-4-trifluoromethylphenyl)-2-cyano-3-cyclopropyl propan-1,3-dione, calculated as the parent compound, in or on the meat of cattle, goat, hogs, horses, poultry, and sheep; liver of cattle, goat, hogs, horses and sheep; meat byproducts (except liver) of cattle, goat, hogs, horses, and sheep; fat of cattle, goat, hogs, horses, poultry, and sheep; liver of poultry; eggs; and milk. Rhone-Poulenc Ag Company requested this tolerance under the Federal Food, Drug and Cosmetic Act (FFDCA), as amended by the Food Quality Protection Act of 1996 (Pub. L. 104–170).

DATES: This regulation is effective September 23, 1998. Objections and requests for hearings must be received by EPA on or before November 23, 1998.

ADDRESSES: Written objections and hearing requests, identified by the docket control number, [OPP–300713], must be submitted to: Hearing Clerk (1900), Environmental Protection Agency, Rm. M3708, 401 M St., SW., Washington, DC 20460. Fees accompanying objections and hearing requests shall be labeled ''Tolerance Petition Fees'' and forwarded to: EPA Headquarters Accounting Operations Branch, OPP (Tolerance Fees), P.O. Box 360277M, Pittsburgh, PA 15251. A copy of any objections and hearing requests filed with the Hearing Clerk identified by the docket control number, [OPP–300713], must also be submitted to: Public Information and Records Integrity Branch, Information Resources and Services Division (7502C), Office of Pesticide Programs, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460. In person, bring a copy of objections and hearing requests to Rm. 119, Crystal Mall #2, 1921 Jefferson Davis Hwy., Arlington, VA.

A copy of objections and hearing requests filed with the Hearing Clerk may also be submitted electronically by sending electronic mail (e-mail) to: opp-docket@epamail.epa.gov. Copies of objections and hearing requests must be submitted as an ASCII file avoiding the use of special characters and any form of encryption. Copies of objections and hearing requests will also be accepted on disks in WordPerfect 5.1/6.1 file format or ASCII file format. All copies of objections and hearing requests in electronic form must be identified by the docket control number [OPP–300713]. No Confidential Business Information (CBI) should be submitted through e-mail. Electronic copies of objections and hearing requests on this rule may be filed online at many Federal Depository Libraries.

FOR FURTHER INFORMATION CONTACT: By mail: Joanne I. Miller, Registration Division [7505C], Office of Pesticide Programs, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460. Office location, telephone number, and e-mail address: Crystal Mall #2, 1921 Jefferson Davis Hwy., Arlington, VA, 703–305–6224, e-mail: miller.joanne@epamail.epa.gov.

SUPPLEMENTARY INFORMATION: In the **Federal Register** of February 26, 1997 (62 FR 8737)(FRL–5585–2), EPA, issued a notice pursuant to section 408 of the Federal Food, Drug, and Cosmetic Act (FFDCA), 21 U.S.C. 346a(e) announcing the filing of a pesticide petition (PP) 6F4664 for tolerance by Rhone-Poulenc Ag Company, P.O. Box 12014, 2 T.W. Alexander Drive, Research Triangle Park, NC 27709. This notice included a summary of the petition prepared by Rhone-Poulenc Ag Company, the registrant. There were no comments received in response to the notice of filing.

In the **Federal Register** of July 27, 1998 (63 FR 40119)(FRL–6017–3), EPA issued a notice pursuant to section 408 of the Federal Food, Drug, and Cosmetic Act (FFDCA), 21 U.S.C. 346a(e) announcing the filing of an amended pesticide petition for this tolerance petition. The revised petition requested that 40 CFR part 180 be amended by establishing tolerances for combined residues of the herbicide isoxaflutole [5-cyclopropyl-4-(2-methylsulfonyl-4-trifluoromethyl benzoyl) isoxazole] and

its metabolites 1-(2-methylsulfonyl-4-trifluoromethylphenyl)-2-cyano-3-cyclopropyl propan-1,3-dione (RPA 202248) and 2-methylsulphonyl-4-trifluoromethyl benzoic acid (RPA 203328), calculated as the parent compound, in or on field corn, grain at 0.20 part per million (ppm); field corn, fodder, at 0.50 ppm, field corn, forage at 1.0 ppm; and by establishing a tolerance for combined residues of the herbicide isoxaflutole [5-cyclopropyl-4-(2-methylsulfonyl-4-trifluoromethyl benzoyl) isoxazole] and its metabolite RPA 202248, calculated as the parent compound, in or on the meat of cattle, goat, hogs, horses, poultry, and sheep at 0.20 ppm, liver of cattle, goat, hogs, horses and sheep at 0.50 ppm, meat byproducts (except liver) of cattle, goat, hogs, horses, and sheep at 0.1 ppm, fat of cattle, goat, hogs, horses, poultry, and sheep at 0.20 ppm, liver of poultry at 0.3 ppm, eggs at 0.01 ppm and milk at 0.02 ppm.

I. Risk Assessment and Statutory Findings

Section 408(b)(2)(A)(i) of the FFDCA allows EPA to establish a tolerance (the legal limit for a pesticide chemical residue in or on a food) only if EPA determines that the tolerance is ''safe.'' Section 408(b)(2)(A)(ii) defines ''safe'' to mean that ''there is a reasonable certainty that no harm will result from aggregate exposure to the pesticide chemical residue, including all anticipated dietary exposures and all other exposures for which there is reliable information.'' This includes exposure through drinking water and in residential settings, but does not include occupational exposure. Section 408(b)(2)(C) requires EPA to give special consideration to exposure of infants and children to the pesticide chemical residue in establishing a tolerance and to ''ensure that there is a reasonable certainty that no harm will result to infants and children from aggregate exposure to the pesticide chemical residue. . . .''

EPA performs a number of analyses to determine the risks from aggregate exposure to pesticide residues. For further discussion of the regulatory requirements of section 408 and a complete description of the risk assessment process, see the Final Rule on Bifenthrin Pesticide Tolerances (62 FR 62961, November 26, 1997) (FRL–5754–7).

II. Aggregate Risk Assessment and Determination of Safety

Consistent with section 408(b)(2)(D), EPA has reviewed the available scientific data and other relevant information in support of this action. EPA has sufficient data to assess the hazards of isoxaflutole and to make a determination on aggregate exposure, consistent with section 408(b)(2), for the tolerances described above. EPA's assessment of the dietary exposures and risks associated with establishing the tolerances follows.

A. Toxicological Profile

EPA has evaluated the available toxicity data and considered its validity, completeness, and reliability as well as the relationship of the results of the studies to human risk. EPA has also considered available information concerning the variability of the sensitivities of major identifiable subgroups of consumers, including infants and children. The nature of the toxic effects caused by isoxaflutole are discussed below.

1. Several acute toxicology studies places the technical-grade herbicide in Toxicity Category III.

2. In a 21–day dermal toxicity study in rats, eight CD rats/sex/group were treated topically with dosages of either 10, 100 or 1,000 milligrams/kilogram/day (mg/kg/day) of isoxaflutole 8 hours per day for 21 days. The test material was applied using 0.5% w/v methylcellulose in purified water daily at a volume-dosage of 2 ml/kg bodyweight. Treatment-related marginal increase in relative liver weight was observed in both sexes of rats at 1,000 mg/kg/day. This finding was considered as an adaptive response to isoxaflutole treatment. There were no differences between the control and treated groups in any of the other parameters measured. The systemic toxicity Lowest Observable Adverse Effect Level (LOAEL) is greater than 1,000 mg/kg/day for males and females; the systemic toxicity no observable effect level (NOEL) is 1,000 mg/kg or greater for males and females. The dermal toxicity LOAEL is greater than 1,000 mg/kg/day for males and females; the dermal toxicity NOEL is 1,000 mg/kg/day or greater for males and females.

3. In a 28–day oral subchronic toxicity study, RPA 203328 (a metabolite of isoxaflutole) was administered in the diet to male and female Charles River France, Sprague-Dawley rats (10/sex/dose) at dosage levels of 0, 150, 500, 5,000, or 15,000 ppm (0, 11.14, 37.57, 376.96 or 1,117.79 mg/kg/day in males and 12.68, 42.70, 421.53 or 1,268.73 mg/kg/day in females, respectively) for 28 days. Among males, a slightly lower urinary pH at 15,000 ppm and minimally higher urinary refractive index at 500 and 15,000 ppm were noted. In the absence of adverse effects on other parameters, these changes were considered as a normal physiological response to ingestion of an acidic compound. There were no compound related adverse effects on survival, clinical signs, body weight, food consumption, clinical chemistry, hematology, and gross or microscopic pathology. The LOAEL is greater than 1,117.79 mg/kg/day in males and 1,268.73 mg/kg/day in females (15,0000 ppm). The NOEL for both sexes is 1,117.79 mg/kg/day in males and 1,268.73 mg/kg/day in females (15,000 ppm).

4. In a chronic toxicity study, isoxaflutole was administered to five beagle dogs/sex/dose in the diet at dose levels of 0, 240, 1,200, 12,000, or 30,000 ppm (0, 8.56, 44.81, and 453 mg/kg/day, respectively, for males; 0, 8.41, 45.33, 498, or 1,254 mg/kg/day, respectively, for females) for 52 weeks. The 52–week mean intake value for males in the 30,000 ppm treatment group was not available because all dogs in that group were sacrificed after 26 weeks due to severe chronic reaction to the test substance. The LOAEL is 453 mg/kg/day for males; 498 mg/kg/day for females (12,000 ppm), based on reduced weight gains compared to controls and intravascular hemolysis with associated clinical chemistry and histopathological findings. The NOEL is 44.81 mg/kg/day for males; 45.33 mg/kg/day for females (1,200 ppm).

5. In a combined chronic toxicity/carcinogenicity study, isoxaflutole was continuously administered to 75 Sprague-Dawley rats/sex/dose at dietary levels of 0, 0.5, 2, 20 or 500 mg/kg/day for 104 weeks. An additional 20 rats/sex/group were treated for 52 weeks, after which 10 rats/sex/group were sacrificed and the remainder were held for a maximum of 8 weeks without treatment in order to assess reversibility of treatment-related changes. Evidence of systemic toxicity observed at 500 mg/kg/day in one or both sexes included: abnormal gait, limited use of limbs, lower body weight gains and food consumption, decreased food efficiency during the first 14 weeks of the study, elevated cholesterol levels throughout the 104–week study, increased absolute and relative liver weights, and thyroid hyperplasia. Increased incidence of periacinar hepatocytic hypertrophy, portal tract (senile) bile duct changes, focal cystic degeneration of the liver was observed in males at 20 mg/kg/day and greater, females at 500 mg/kg/day. Eye opacity, gross necropsy changes in eyes, corneal lesions, degeneration of sciatic nerve and thigh muscles was observed in males at 20 mg/kg/day and higher doses and in females at 500 mg/

kg/day. The chronic LOAEL is 20 mg/kg/day based on liver, thyroid, ocular, and nervous system toxicity in males and liver toxicity in females. The chronic NOEL is 2.0 mg/kg/day.

Under the conditions of this study, isoxaflutole induced benign and malignant tumors of the liver in both sexes at 500 mg/kg/day hepatocellular adenomas (in 14/75 in males and 29/74 in females vs. 2/75 and 4/74 in the control group rats) and hepatocellular carcinomas (17/75 and 24/74 vs. 5/75 and 0/74 in the controls, respectively). Combined incidences of liver adenoma/carcinoma in males and females were 31/75 and 46/74, respectively, with animals bearing carcinomas in the majority. Thyroid follicular adenomas occurred with increased frequency in 500 mg/kg/day males (15/75 vs 3/74 in controls). The above tumor incidences exceeded the historical incidence of these tumors for this strain in this laboratory. The study demonstrated that isoxaflutole is carcinogenic to rats at a dose of 500 mg/kg/day. The chemical was administered at a dose sufficient to test its carcinogenic potential. At 500 mg/kg/day, there were alterations in most of the parameters measured including clinical signs of toxicity, body weight gain, food consumption, food conversion efficiency, and clinical as well as post-mortem pathology. Thyroid stimulating hormone (TSH) was not measured in this study. However, in a separate special study investigating the mechanism of action of isoxaflutole on the thyroid, tested at the same doses as this study, TSH was indirectly measured since there was a significant reduction in T4 level and thyroid gland weights were significantly increased. These results were sufficient to support the hypothesis that isoxaflutole may have induced thyroid tumors in male rats through a disruption in the thyroid-pituitary hormonal feedback mechanisms.

6. In a 78–week carcinogenicity study, isoxaflutole was fed in diet to 64 or 76 mice/sex/dose at dose levels of 0, 25, 500, or 7,000 ppm daily (means of 0, 3.2, 64.4, or 977.3 mg/kg/day, respectively, for males; and 0, 4.0, 77.9, or 1,161.1 mg/kg/day, respectively, for females). Interim sacrifices were made at 26 weeks (12 mice/sex at the 0 and 7,000 pm doses) and at 52 weeks (12 mice/sex at all dose levels). Isoxaflutole had no significant effect on the survival of animals. Systemic signs of toxicity in the treated groups included: decreased body weight gain in both sexes at 500 ppm and 7,000 ppm and for females at 25 ppm group; food consumption was unaffected except food efficiency was lower for both sexes at 7,000 ppm during the first 14 weeks of the study; absolute and relative/body liver weights were significantly increased in both sexes at 7,000 ppm and at 500 ppm relative liver weight was increased in males at 52 weeks and in females at 78 weeks; gross necropsy at 78–week sacrifice revealed increased occurrences of liver masses in both sexes at 7,000 ppm; non-neoplastic lesions of the liver occurred at 52–week sacrifice in males at 500 ppm and in males and females at 7,000 ppm. At termination, the 500 ppm group males exhibited increased incidence of hepatocyte necrosis. At 7,000 ppm, significant increase in non-neoplastic lesions in both sexes included periacinar hepatocytic hypertrophy, necrosis, and erythrocyte-containing hepatocytes. In addition, males at the high dose had pigment-laden hepatocytes and Kupffer cells, basophilic foci, and increased ploidy; extramedullary hemopoiesis in the spleen was noted in both sexes; increase incidences of hepatocellular adenoma and carcinoma were observed in both sexes at 7,000 ppm in the 52–week and 78–week studies.

Among scheduled and unscheduled deaths in the 78–week study, there were significant occurrences of hepatocellular adenomas in 27/52 males (52%) and 15/52 females (29%), and carcinomas in 17/52 males (33%) and 4/52 females (8%; non-significant). The incidences of these tumors exceeded the corresponding historical incidence with this species, in this laboratory. Combined adenoma and carcinoma incidences at 7,000 ppm were 73% for males and 35% for females. At 500 ppm, the incidences of 17% adenomas and 15% carcinomas in males and 2% adenomas in females were not statistically significant, but exceeded the means for historical controls. The 52– and 78–week studies revealed a dose-related decrease in the first occurrence of carcinomas in males; the earliest carcinomas were observed at 78, 71, 52, and 47 weeks at the 0 through 7,000 ppm doses. There were no carcinomas in females up to 78 weeks at 0, 25, or 500 ppm, although, the earliest finding at 7,000 ppm was at 60 weeks.

The LOAEL for this study is 64.4 mg/kg/day for males and 77.9 mg/kg/day for females (500 ppm), based on decreased body weight gains, increased liver weights, and increased incidences of histopathological liver changes. The NOEL is 3.2 mg/kg/day for males and 4.0 mg/kg/day for females (25 ppm). Although body weight was decreased marginally in females at 25 ppm, there were no corroborating findings of toxicity at this dose. Under conditions of this study, isoxaflutole appears to induce hepatocellular adenomas and carcinomas in male and female CD–1 mice. The chemical was tested at doses sufficient to measure its carcinogenic potential.

7. In a developmental toxicity study isoxaflutole was administered to 25 female Sprague-Dawley rats by gavage at dose levels of 0, 10, 100, or 500 mg/kg/day from gestational days 6–15, inclusive. Maternal toxicity, observed at 500 mg/kg/day, was manifested as an increased incidence of salivation; decreased body weight, weight gain, and food consumption during the dosing period. The maternal LOAEL is 500 mg/kg/day, based on increased incidence of clinical signs and decreased body weights, body weight gains and food consumption. The maternal NOEL is 100 mg/kg/day.

Developmental toxicity, observed at 100 and 500 mg/kg/day, were manifested as increased incidences of fetuses/litters with various anomalies: growth retardations (decreased fetal body weight; increased incidence of delayed ossification of sternebrae, metacarpals and metatarsals). In addition, an increased incidence of vertebral and rib anomalies and high incidence of subcutaneous edema were observed at 500 mg/kg/day. The incidences of these anomalies were higher than the concurrent control values and in some cases exceeded the range for historical controls. The LOAEL for developmental toxicity is 100 mg/kg/day, based on decreased fetal body weights and increased incidences of skeletal anomalies. The developmental NOEL is 10 mg/kg/day.

8. In a developmental toxicity study, isoxaflutole was administered to 25 female New Zealand White Rabbits by gavage at dose levels of 0, 5, 20, or 100 mg/kg/day from gestational days 6–19, inclusive. Maternal toxicity, observed at 100 mg/kg/day, was manifested as increased incidence of clinical signs (little diet eaten and few feces) and decreased body weight gain and food consumption during the dosing period. The maternal LOAEL is 100 mg/kg/day, based on increased incidence of clinical signs, decreased body weight gains and food consumption. The maternal NOEL is 20 mg/kg/day.

Developmental toxicity, observed at 5 mg/kg/day consisted of increased incidence of 27th pre-sacral vertebrae. Additional findings noted at 20 and 100 mg/kg/day were manifested as increased number of postimplantation loss and late resorptions, as well as growth retardations in the form of generalized reduction in skeletal ossification, and increased incidence of 13 pairs of ribs.

At 100 mg/kg/day, an increased incidence of fetuses with incisors not erupted was also observed. Incidences of these anomalies, on a litter basis, were higher than the concurrent control values and in some cases exceeded the range for historical controls. The LOAEL for developmental toxicity is 5 mg/kg/day, based on increased incidence of fetuses with 27th pre-sacral vertebrae. The developmental NOEL was not established.

9. In a 2–generation reproduction study, isoxaflutole was administered to Charles River Crl:CD BR VAF/Plus rats (30/sex/group) at nominal dietary levels of 0, 0.5, 2, 20 or 500 mg/kg/day (actual levels in males: 0, 0.45, 1.76, 17.4 or 414 mg/kg/day; females: 0, 0.46, 1.79, 17.7 or 437 mg/kg/day, respectively). Evidence of toxicity was observed in the male and female parental rats of both generations: at 20 and 500 mg/kg/day, increased absolute and relative liver weights associated with liver hypertrophy was observed; at 500 mg/kg/day (HDT), decreased body weight, body weight gain and food consumption during premating and gestation, and increased incidence of subacute inflammation of the cornea of the eye in F_0 adults as well as keratitis in F_1 adults were reported. There were no other systemic effects that were attributed to treatment, nor was there any indication, at any treatment level, of an effect on reproductive performance of the adults. Treatment-related effects were observed in F_1 and F_2 offspring: at 20 and 500 mg/kg/day, reduction in pup survival was noted; at 500 mg/kg/day, decrease in body weights of F_1 and F_2 pups throughout lactation, increased incidence of chronic keratitis, low incidence of inflammation of the iris, as well as retinal and vitreous bleeding in F_2 pups and weanlings were observed. Necropsy of F_1 and F_2 pups culled on day 4 revealed an increased number of pups with no milk in the stomach and underdeveloped renal papillae. The Systemic LOAEL is 17.4 mg/kg/day for males and females, based upon increased liver weights and hypertrophy and the Systemic NOEL is 1.76 mg/kg/day for males and females. The Reproductive LOAEL is greater than 437 mg/kg/day, based on lack of reproductive effects and the Reproductive NOEL is greater than or equal to 437 mg/kg/day.

10. For parent isoxaflutole, in a *Salmonella typhimurium* reverse gene mutation assay, independently performed tests were negative in *S.typhimurium* strains TA1535, TA1537, TA1538, TA98 and TA100 up to insoluble doses (≧ 500 µg/plate +/-S9) and was non-cytotoxic. In a mouse lymphoma L5178Y forward gene mutation assay, independently performed tests were negative up to insoluble (≧ 150 µg/ml +/-S9) or soluble (≤ 75 µg/ml +/-S9) doses. An *in vitro* cytogenetic assay in cultured human lymphocytes tested negative up to insoluble concentrations (≧ 300 µg/ml -S9; 600 µg/ml +S9) and was non-cytotoxic. A mouse micronucleus assay tested negative in male or female CD–1 mice up to the highest administered oral gavage dose (5,000 mg/kg). No evidence of an overt toxic response in the treated animals or a cytotoxic effect on the target cells was observed.

For the major metabolite RPA 202248, in a *Salmonella typhimurium* reverse gene mutation assay, independently performed plate incorporation or preincubation modification to the standard plate incorporation tests were negative in *S. typhimurium* strains TA1535, TA1537, TA98, TA100 and TA102 up to the highest dose assayed (5,000 µg/plate +/- S9).

For the minor metabolite RPA 203328, in a *Salmonella typhimurium* reverse gene mutation assay, independently performed plate incorporation tests were negative in *S. typhimurium* strains TA1535, TA1537, TA98, and TA100 up to cytotoxic doses (≧ 2,500 µg/plate +/- S9). In an *In vivo* mouse micronucleus assay, male mice were orally dosed with 500, 1,000, or 2,000 mg/kg RPA 203328 (99%) administered in 0.5% methylcellulose at a constant volume of 10 ml/kg. There was no indication of a clastogenic and/or aneugenic effect associated with administration of RPA 203328 under the conditions of this assay, which included administration of a limit dose (2,000 mg/kg) with sacrifice times of 24 and 48 hours. In a Chinese hampster ovary/Hypoxanthine guanine phophoribosyl transferase (CHO/HGPRT) forward mutation assay with duplicate cultures and a confirmatory assay, two independently performed CHO cell HGPRT forward gene mutation assays used duplicate cultures of RPA 203328 that were assayed at concentrations of 84.5 – 2,700 µg/ml -S9 (initial and confirmatory trials) and 338 – 2,700 µg/ml +S9 (initial trial) and 675 – 2,700 µg/ml (confirmatory trial). In the assays, there was no indication of cytotoxicity ±S9 at the highest dose level of 2,700 µg/ml. Although there were a few sporadic instances of statistically significant elevations in mutation frequency, these were not dose-related and were generally below the 15×10^{-6} required for a positive response except in one case (a value of 15.8×10^{-6}). Overall, there was no evidence of any increase in mutation frequency resulting from exposure to RPA 203328. In an *In vitro* cytogenetics assay in cultured Chinese hamster ovary cells (CHO), CHO cells were analyzed from cultures exposed to RPA 203328 (99.0%) at 931, 1,330, 1,900 and 2,710 µg/ml ± S9 in an initial trial (3–hr exposure, followed by wash and 15–hr incubation, then 2–hr exposure to colcemid, followed by fixation). In the confirmatory trial, cells were exposed to concentrations of 924, 1,320, 1,890 and 2,700 µg/ml ± S9(-S9: 17.8–hr exposure to RPA 203328, followed by 2–hr exposure to colcemid; +S9, same schedule as in the first trial). No effect on mitotic indices was observed at the highest dose level +S9 in either trial. The positive controls induced the expected high yield of cells with chromosome aberrations. There was, however, no evidence that RPA 203328 induced a clastogenic response at any dose or harvest time.

11. In a metabolism study, ^{14}C-isoxaflutole was administered to groups (five/sex/dose) of male and female Sprague-Dawley (CD) rats by gavage at a single low oral dose (1 mg/kg), repeated low oral dose (1 mg/kg/day as a final dose in a 15 day repeat dose series), and a single high dose (100 mg/kg). In addition, pharmacokinetics in blood was investigated using 2 groups of 10 rats (five/sex/dose) that received a single oral dose of 1 or 100 mg/kg of ^{14}C-isoxaflutole. Urine and feces were collected at 24, 48, 96, 120, 144, and 168 hours after dosing, and tissues were collected at 168 hours post-dosing. Metabolite analysis was performed on the urine and feces of all dose groups, and on the liver samples of the two low dose group male and female rats.

^{14}C-isoxaflutole was rapidly and extensively absorbed and metabolized. RPA 202248, a major metabolite, a diketonitrile derivative, represented 70% or more of the radioactivity excreted in the urine and feces from the two low dose groups. The other minor metabolite, RPA 203328, was more polar. Elimination was rapid and dose-dependent. The mean total recovery ranged from 98.09% to 99.84% (mean 99.21%). Urinary elimination (males: 61.16% to 66.65%, females: 58.80% to 67.41%) was predominant in the two low dose groups while the major portion of radiolabel was excreted via the feces (males: 62.99%, females: 55.23%) in the high dose group. The higher fecal elimination possibly resulted from the saturation of absorption resulting in elimination of unchanged parent compound. The majority of the radiolabel was eliminated in the first 24 and 48 hours for the low and the high dose groups, respectively. The extensive systemic clearance of the radiolabel was

reflected in the low levels of radioactivity found in tissues at 168 hours post-dosing. For the two low dose groups, liver (0.172 to 0.498 ppm) and kidneys (0.213 to 0.498 ppm) accounted for the major portion of the administered dose found in tissues. In the high dose group, the highest level of radioactivity was found in decreasing order in blood, plasma, liver, and kidney. Sex-related differences were observed in the excretion and distribution pattern among high dose rats. The elimination half-lives were similar among single low and high dose groups, with an estimated mean blood half-life of 60 hours. No sex differences were observed in the metabolism of ^{14}C-isoxaflutole.

12. In an acute neurotoxicity study, CD rats (10/sex/group) received a single oral gavage administration of isoxaflutole in 0.5% aqueous methylcellulose at doses of 0 (vehicle only), 125, 500 or 2,000 mg/kg body weight. No treatment-related effects were observed on survival, body weight, body weight gain or food consumption. There were significant decreases in landing foot splay measurements in males at 2,000 mg/kg during functional observational battery (FOB) tests indicating impairment of neuromuscular function. At 500 mg/kg, males exhibited significant decreases in landing foot splay measurements on day 15. The LOAEL was 500 mg/kg based on significant decreases in landing foot splay on day 15. The NOEL was 125 mg/kg.

In a subchronic neurotoxicity study, isoxaflutole was administered to CD rats (10/sex/group) at dietary levels of 0, 25, 250 or 750 mg/kg/day for 90 days. Treatment-related effects observed in high-dose males consisted of decreases in body weight and body weight gain. The LOAEL was established at 25 mg/kg/day based on significant decreases in mean hind limb grip strength in male rats at 25 mg/kg/day (LDT) during both trials at week 13 as well as a non significant decrease in mean forelimb grip strength at week 13.

13. In a dermal absorption study ^{14}C-Isoxaflutole(99.7%) as a 1% carboxy methylcellulose aqueous suspension was administered to male Crl:CDBR rats (4/dose) as a single dermal application at 0.865, 7.32 or 79 mg/cm^2. Dermal absorption was measured after 0.5, 1, 2, 4, 10 and 24 hours of exposure. At the lowest dose, 3.46% was absorbed at 10 hours and 4.42% was absorbed at 24 hours. All other doses showed less than 1% absorbed at 24 hours.

14. EPA determined that plant tolerances should be established in terms of isoxaflutole and its metabolites RPA 202248 and RPA 203328. EPA also decided that the residues of concern in drinking water are isoxaflutole and its metabolites RPA 202248 and RPA 203328. Structural activity relationship (SAR) and mutagenicity data on RPA 203328 were submitted and reviewed and EPA concluded that RPA 203328 does not pose a special toxicological concern as to carcinogenic toxicity. However, the proposed analytical enforcement method for plants involves hydrolysis of isoxaflutole to RPA 202248, conversion of RPA 202248 to RPA 203328, and then derivatization of RPA 203328 to a methyl ester for gas chromatography (GC) analysis. Therefore, even though there may not be concerns with RPA 203328 for carcinogenic toxicity, it will be included in the dietary (food) risk assessment for food commodities. However, RPA 203328 will not be included in an aggregate cancer risk assessment.

Because there is increased sensitivity to offspring and RPA 203328 is a rat metabolite the Metabolism Committee concluded that the registrant should perform a developmental toxicity study in rats using RPA 203328 to further characterize the toxicity of RPA 203328. Until review of a developmental study on RPA 203328 the Agency will not exclude RPA 203328 from risk assessments based on a developmental endpoint.

B. Toxicological Endpoints

1. *Acute toxicity*. EPA identified the developmental LOAEL of 5 mg/kg/day from the developmental toxicity study in rabbits as the acute dietary endpoint to be used for risk assessments for the subpopulation females (13+). The LOAEL is based on increased incidence of fetuses with 27th pre-sacral vertebrae; a NOEL was not established. The fetal incidence of this anomaly was dose-depended and exceeded the concurrent as well as the historical control incidences. Also at the next higher dose (20 mg/kg/day) there was an increased incidence of fetuses with reduced ossification. It was noted that the developmental anomalies occurred below the dose that caused maternal toxicity (100 mg/kg/day). Because of the use of a LOAEL, an uncertainty factor of 3X in addition to the conventional safety factor of 100X to account for inter- and intra-species variations was applied for this risk assessment. EPA also determined that for acute dietary risk assessment for the subpopulation females (13+), the 10X safety factor for the protection of infants and children (as required by FQPA) should be retained. Thus, a MOE of 3,000 is required for this subgroup.

EPA also identified the NOEL of 125 mg/kg/day from the acute neurotoxicity study as the endpoint of concern to be used in acute dietary risk assessment for the general population including infants and children. The NOEL is based on significant decreases in landing foot splay on day 15. EPA determined that for acute dietary risk assessment for the general population, the 10X safety factor to protect infants and children (as required by FQPA) should be retained. Thus, a MOE of 1,000 is required for the general population including infants and children, and includes the conventional 100X safety factor and 10X safety factor for FQPA.

The conclusion to retain the 10X FQPA safety factor was based on the following factors:

There is increased sensitivity of rat and rabbit fetuses as compared to maternal animals following *in utero* exposures in prenatal developmental toxicity studies. In both species, the developmental effects were seen at doses which were not maternally toxic. (i.e., developmental NOELs were less than the maternal NOELs). In rats, increased sensitivity manifested as growth retardation characterized as decreased fetal body weight and increased incidence of delayed ossification of sternebrae, metacarpals and metatarsals. In rabbits, increased sensitivity was manifested as fetuses with increased pre-sacral vertebrae at the lowest dose tested as well as fetuses with increased incidences of skeletal anomalies at the next two higher doses tested; also a NOEL for developmental toxicity was not established in this study.

There is also concern for the developmental neurotoxic potential of isoxaflutole. This is based on the demonstration of neurotoxicy in functional observational battery (FOB) measurements in the acute and subchronic neurotoxicity as well as evidence of neuropathology in the combined chronic toxicity/carcinogenicity studies.

Finally, a developmental neurotoxicity study is required based on the evidence of neurotoxicity as well as the lack of assessment of susceptibility of the offspring in functional/neurological development in the standard developmental/reproduction toxicity studies. An evaluation of the neurotoxicity studies by EPA identified significant neurobehavioral findings, supported by neuropathology observed in the chronic study in rats following long term exposure. With this information considered in the weight-of-the-evidence evaluation, EPA determined that a developmental

neurotoxicity study in rats with isoxaflutole will be required.

2. *Short - and intermediate - term toxicity.* EPA did not select doses or endpoints for these risk assessments due to the lack of dermal or systemic toxicity in the 21–day dermal toxicity study in rats following repeated dermal applications at doses up to and including 1,000 mg/kg/day (Limit-Dose).

3. *Chronic toxicity.* EPA has established the RfD for isoxaflutole at 0.002 mg/kg/day. This RfD is based on a NOEL of 2 mg/kg/day based on hepato, thyroid, ocular and neurotoxicity in males as well as hepatotoxicity in females at 20 mg/kg/day (LOAEL) following dietary administration of Isoxaflutole (99.2%) at 0, 0.5, 2, 20 or 500 mg/kg/day for 104 weeks to male and female Sprague-Dawley rats. An uncertainty factor of 1,000 was used to account for the protection of infants and children (as required by FQPA) including the potential for increased sensitivity to fetuses following *in utero* exposure, and inter- and intra-species variations.

4. *Carcinogenicity.* In accordance with the EPA proposed Guidelines for Carcinogenic Risk Assessment (April 23, 1996), isoxaflutole was characterized as ''likely to be a human carcinogen,'' based on statistically significant increases in liver tumors in both sexes of mice and rats, and statistically significant increases in thyroid tumors in male rats. Also, the liver tumors in male mice had an early onset.

Administration of isoxaflutole in the diet to CD–1 mice for 78 weeks resulted in statistically significant increases in hepatocellular adenomas and combined adenoma/carcinoma in both sexes at the highest dose (7,000 ppm, equivalent to 977.3 mg/kg/day for males; 1,161.1 mg/kg/day for females). There were also positive significant trends for hepatocellular adenomas, carcinomas and combined adenoma/carcinoma in both sexes. In male mice there was also a statistically significant increase in hepatocellular carcinomas at the highest dose with a positive significant trend and, at the 53–week sacrifice, there was evidence of early onset for hepatocellular adenomas. The incidences of hepatocellular tumors exceeded that for historical controls in both sexes. The CPRC agreed that the highest dose in this study was adequate and not excessive.

Administration of isoxaflutole in the diet to Sprague-Dawley rats for 2 years resulted in statistically significant increases in hepatocellular adenomas, carcinomas and combined adenoma/carcinoma in both sexes at the highest dose (500 mg/kg/day). There were also positive significant trends for hepatocellular carcinomas, adenomas and combined adenoma/carcinoma in both sexes. The incidences of hepatocellular adenomas and carcinomas exceeded that for historical controls in both sexes.

In male rats there was also a statistically significant increase in thyroid follicular cell adenomas, carcinomas and combined adenoma/carcinoma at the highest dose, and positive significant trends for these adenomas and combined adenoma/carcinoma. The incidences of thyroid adenomas and carcinomas exceeded that of historical controls in male rats. The CPRC agreed that the highest dose in the rat study was adequate and not excessive.

There was no evidence of mutagenicity in the studies submitted and no structurally related analogs could be identified, since isoxaflutole is a member of a new class of chemicals.

Studies submitted by the registrant to show a mechanistic basis for the liver tumors were considered to be suggestive, but not convincing. The mechanistic evidence presented for the thyroid tumors appeared to be scientifically plausible and consistent with EPA current policy.

EPA decided that for the purpose of risk characterization, a non-linear MOE approach be applied to the most sensitive precursor lesion in the male rat thyroid, and that a linear low-dose extrapolation be applied for the tumors of the rat liver. The NOEL of 2 mg/kg/day in males from a 104 week combined chronic toxicity/carcinogenicity study in rats was used for the non-linear MOE cancer risk assessment. The endpoint of concern and LOAEL was 20 mg/kg/day based on thyroid hyperplasia. Tumors first appear in this study at the 500 mg/kg/day dose.

It was later decided that there was no reason not to include the results from the 78–week feeding/carcinogenicity study in mice when determining the Q_1* to be used for risk assessment for the linear low-dose extrapolation. A Q_1* was developed for the female mouse liver, female rat liver, male mouse liver and male rat liver and the Q_1* with the highest unit of potency used for risk assessment.

The four resulting estimates of unit potency were 3.55×10^{-3} for female CD–1 mouse liver, 3.84×10^{-3} for female rat liver, 1.14×10^{-2} for male CD–1 mouse liver, and 5.27×10^{-3} for male rat liver. The unit risk, Q_1* $(mg/kg/day)^{-1}$ of isoxaflutole, based upon male mouse liver (adenomas and or carcinomas) tumors is 1.14×10^{-2} in human equivalents, converted from animals to humans by use of the 3/4's scaling factor (1994, Tox—Risk, 3.5–K.Crump). The dose levels used in the 79 week mouse study were 0, 3.2, 64.4 or 977.3 mg/kg/day of isoxaflutole. The corresponding tumor rates for the male mice were 13/47, 15/50, 14/48 or 38/49.

C. Exposures and Risks

1. *From food and feed uses.* No previous tolerances have been established for the combined residues of isoxaflutole and its metabolites. Risk assessments were conducted by EPA to assessed dietary exposures from isoxaflutole as follows:

Section 408(b)(2)(E) authorizes EPA to use available data and information on the anticipated residue levels of pesticide residues in food and the actual levels of pesticide chemicals that have been measured in food. If EPA relies on such information, EPA must require that data be provided 5 years after the tolerance is established, modified, or left in effect, demonstrating that the levels in food are not above the levels anticipated. Following the initial data submission, EPA is authorized to require similar data on a time frame it deems appropriate. As required by section 408(b)(2)(E), EPA will issue a data call-in for information relating to anticipated residues to be submitted no later than 5 years from the date of issuance of this tolerance.

Section 408(b)(2)(F) states that the Agency may use data on the actual percent of food treated for assessing chronic dietary risk only if the Agency can make the following findings: (1) that the data used are reliable and provide a valid basis to show what percentage of the food derived from such crop is likely to contain such pesticide residue; (2) that the exposure estimate does not underestimate exposure for any significant subpopulation group; and (3) if data are available on pesticide use and food consumption in a particular area, the exposure estimate does not understate exposure for the population in such area. In addition, the Agency must provide for periodic evaluation of any estimates used. To provide for the periodic evaluation of the estimate of percent crop treated as required by the section 408(b)(2)(F), EPA may require registrants to submit data on percent crop treated.

The Agency used percent crop treated (PCT) information as follows:

A routine chronic dietary exposure analysis for field corn was based on 34% of the crop treated. These estimates were derived from market projections for the end of a 5–year period after the initial registration. Although percent of crop is expected to be significantly less

in initial years of registration, 34% of the market share is considered to be the highest percentage attainable after 5 years and is considered to be conservative. At the end of the 5–year period, EPA will require that data be provided to demonstrate that the percent of corn treated is not above the level anticipated (34%).

The Agency believes that the three conditions listed in Unit II.C.1.(1)-(3) above have been met. With respect to Unit II.C.1.(1), EPA finds that the percent of crop treated information described above is conservative and will be reassessed at the end of 5 years after initial registration. As to Unit II.C.1.(2) and (3), regional consumption information and consumption information for significant subpopulations is taken into account through EPA's computer-based model for evaluating the exposure of significant subpopulations including several regional groups. Use of this consumption information in EPA's risk assessment process ensures that EPA's exposure estimate does not understate exposure for any significant subpopulation group and allows the Agency to be reasonably certain that no regional population is exposed to residue levels higher than those estimated by the Agency. Other than the data available through national food consumption surveys, EPA does not have available information on the consumption of food bearing isoxaflutole in a particular area.

i. *Acute exposure and risk.* Acute dietary risk assessments are performed for a food-use pesticide if a toxicological study has indicated the possibility of an effect of concern occurring as a result of a 1 day or single exposure. As discussed in the Toxicological Endpoints section, separate acute dietary endpoints of concern were identified for use in risk assessment for females 13+ as compared to the general population including infants and children. The appropriate MOEs for acute dietary risk assessment are 3,000 for females 13+ and 1,000 for the general population including infants and children.

The Dietary Risk Evaluation System (DRES) detailed acute analysis estimates the distribution of single-day exposures for the overall U.S. population and certain subgroups. The analysis evaluates individual food consumption as reported by respondents in the USDA 1977–78 Nationwide Food Consumption Survey (NFCS) and accumulates exposure to the chemical for each commodity. Each analysis assumes uniform distribution of isoxaflutole in the commodity supply.

The MOE is a measure of how close the high end exposure comes to the NOEL (LOAEL for females 13+) and is calculated as the ratio of the NOEL to the exposure (NOEL/exposure = MOE). For these acute dietary risk assessments, use of isoxaflutole on corn, anticipated residues were used since corn is a blended commodity. The high end MOE for the subgroup of females, 13+ was 10,000, and is no cause for concern given the need for a MOE of 3,000. The high end MOEs for the remaining populations all exceed 125,000, and demonstrate no acute dietary concern given the need for a MOE of 1,000 for the general population including infants and children.

ii. *Chronic exposure and risk.* a. *Chronic non-cancer risk.* A DRES chronic exposure analysis was performed using a RfD of 0.002 mg/kg/day, tolerance level residues and 100 percent crop treated information to estimate the Theoretical Maximum Residue Contribution, and anticipated residues to estimate exposure for the general population and 22 subgroups. Using tolerance level residues and assuming 100 percent crop treated, non-nursing infants (< 1 year old) is the subgroup that utilized the greatest percentage of the RfD at 81%. By refining the chronic dietary risk assessment assuming 34 percent of the corn crop treated and incorporating anticipated residues for corn, animal RACs and processed commodities, less than 1 percent of the RfD is utilized for the general population and 1 percent of the RfD for nursing infants, the subgroup that accounts for the greatest percentage of the RfD.

The refined chronic dietary risk assessment is considered a reasonable estimate of risk since anticipated residues and percent crop treated estimates were incorporated. Based on the risk estimates calculated in this analysis, the chronic (non-cancer) dietary risk from use of isoxaflutole on corn does not exceed EPA's level of concern.

b. *Carcinogenic risk.* Refined dietary risk assessments for cancer were conducted using anticipated residues for isoxaflutole in corn and animal RACs and processed commodities including the metabolites RPA 207048 and RPA 205834, as well as percent crop treated information. The results of these risk assessments are reported below.

As discussed in the Toxicological Endpoints section above, a non-linear MOE methodology was applied for the estimation of human cancer risk. The NOEL of 2 mg/kg/day in males from a 104 week combined chronic toxicity/carcinogenicity study in rats is the endpoint to be used for the non-linear MOE cancer risk assessment. Cancer MOEs are estimated by dividing the carcinogenic NOEL by the chronic exposure. The assessment was conducted for the total U.S. population only. Using this approach, the upper bound cancer risk was calculated and resulted with a MOE of 250,000.

A linear low-dose extrapolation (Q_1*) was also applied for the tumors of the rat liver. It later was decided that there was no reason not to include the results from the 78–week feeding/carcinogenicity study in mice when determining the Q_1* to be used for risk assessment. The unit risk, Q_1* (mg/kg/day)$^{-1}$ of isoxaflutole, based upon male mouse liver (adenomas and or carcinomas) tumors is 1.14×10^{-2} in human equivalents. Using the linear approach and a Q_1* of 0.0114 resulted in an upper bound cancer risk of 9.3×10^{-8}. This linear risk estimate, for use of isoxaflutole on corn, is below EPA's level of concern for life time cancer risk.

2. *From drinking water.* Parent isoxaflutole is not expected to persist in surface water or to reach ground water. However, the metabolites RPA 202248, and RPA 203328 are expected to reach both ground and surface water, where they are expected to persist and accumulate.

EPA estimated exposure for isoxaflutole and its metabolites RPA 202248 and RPA 203328 for both surface and ground water based on available modeling. Since there are no registered uses for isoxaflutole in the United States, there are no monitoring data to compare against the modeling. Environmental concentrations for surface water were estimated using Tier 2 modeling from EPA'a Pesticide Root Zone Model (PRZM)/EXAMS. The acute and chronic groundwater concentrations were estimated using the SCI-GROW model. For surface water, the maximum concentrations were used for acute risk calculations, the annual means (1–10 years) for chronic risk calculations. For ground water, the SCI-GROW numbers for each compound were used for acute, chronic, and cancer risk assessment.

If residues of isoxaflutole reach water resources, they will be primarily associated with the aqueous phase with minimal adsorption to sediment because of their low adsorption coefficients. Standard coagulation-flocculation and sedimentation processes used in water treatment are not expected to be effective in removing isoxaflutole residues, based on their adsorption coefficients. The use of GAC (Granular Activated Carbon) is also not expected to be effective in removing isoxaflutole

residues because of low binding affinity to organic carbon.

i. *Acute exposure and risk.* Drinking water levels of concern (DWLOC) were calculated for acute exposures to isoxaflutole in surface and ground water for females 13+, the general population and children (1–6 years old). Relative to an acute toxicity endpoint, the acute dietary food exposure (from the DRES analysis) was subtracted from the ratio of the acute NOEL to the appropriate MOE to obtain the acceptable acute exposure to isoxaflutole in drinking water. DWLOCs were then calculated from this acceptable exposure using default body weights (70 kg for general population, 60 kg for females and 10 kg for children) and drinking water consumption figures (2 liters general population and females and 1 liter for children). Based on these calculations EPA's DWLOC for acute dietary risk is 4,200 parts per billion (ppb) for the general population, 1,200 ppb for children (1–6 years old) and 36 ppb for females 13+.

For acute dietary risk estimated maximum concentrations of isoxaflutole and its metabolites RPA 202248 and RPA 203328 were used. In surface water, isoxaflutole and its metabolites RPA 202248 and RPA 203328 are estimated to be 0.4 ppb, 2.0 ppb, and 10.0 ppb, respectively. Estimated maximum concentrations of isoxaflutole and its metabolites RPA 202248 and RPA 203328 in ground water are 0.00025 ppb, 0.23 ppb and 6.1 ppb, respectively. The maximum estimated concentrations of isoxaflutole and its metabolites RPA 202248 and RPA 203328 in surface and ground water were less than EPA's levels of concern for acute exposure in drinking water for the general population, females 13+ and children. Therefore, EPA concludes with reasonable certainty that residues of isoxaflutole and its metabolites RPA 202248 and RPA 203328 in drinking water do not contribute significantly to the aggregate acute human health risk at the present time.

ii. *Chronic exposure and risk*— a. *Chronic non-cancer risk.* EPA has calculated DWLOC for chronic (non-cancer) exposures to isoxaflutole in surface and ground water. To calculate the DWLOC for chronic exposures relative to a chronic toxicity endpoint, the chronic dietary food exposure (from DRES) was subtracted from the RfD (0.002 mg/kg/day) to obtain the acceptable chronic (non-cancer) exposure to isoxaflutole in drinking water. DWLOCs were then calculated from this acceptable exposure using default body weights (70 kg for males, 60 kg for females and 10 kg for children) and drinking water consumption figures (2 liters males and females and 1 liter children). Based on this calculation EPA's DWLOC for chronic (non-cancer) risk is 70 ppb for males, 60 ppb for females and 19 ppb for children.

Estimated annual average concentrations of isoxaflutole and its metabolites RPA 202248 and RPA 203328 in surface water are 0.01 ppb, 1.7 ppb and 9.3 ppb, respectively. Estimated annual average concentrations of isoxaflutole and its metabolites RPA 202248 and RPA 203328 in ground water are 0.00025 ppb, 0.23 ppb and 6.1 ppb, respectively. For the purposes of the screening level assessment, the maximum and average annual concentrations in ground water are not believed to vary significantly. The estimated annual average concentrations of isoxaflutole and its metabolites RPA 202248 and RPA 203328 in surface and ground water were less than EPA's levels of concern for chronic (non-cancer) exposure in drinking water. Therefore, EPA concludes with reasonable certainty that residues of isoxaflutole and its metabolites RPA 202248 and RPA 203328 in drinking water do not contribute significantly to the aggregate chronic (non-cancer) human health risk at the present time.

b. *Carcinogenic risk.* A non-linear cancer aggregate risk assessment has not been conducted since the point of departure for non-linear cancer risk assessment (2 mg/kg/day) is the same endpoint as the RfD and the aggregate cancer linear risk assessment using the Q* is considered more restrictive. Therefore, to calculate the DWLOC for chronic exposures relative to a carcinogenic toxicity endpoint, the chronic (cancer) dietary food exposure (from the DRES analysis) was subtracted from the ratio of the negligible cancer risk (1×10^{-6}) to the recommended linear low-dose extrapolation (Q_1*, 1.14×10^{-2}) to obtain the acceptable chronic (cancer) exposure to isoxaflutole in drinking water. DWLOCs were then calculated from this acceptable exposure using default body weights (70 kg) and drinking water consumption figures (2 liters). Based on this calculation EPA's DWLOC for carcinogenic risk is 3.1 ppb.

As stated in the Toxicological Profile section, Unit II.A. above, RPA 203328 does not have to be included in an aggregate cancer risk assessment. Estimated annual mean concentrations of isoxaflutole and its metabolite RPA 202248 in surface water are 0.01 ppb and 1.7 ppb, respectively. Estimated annual average concentrations of isoxaflutole and its metabolites RPA 202248 in ground water are 0.00025 ppb and 0.23 ppb, respectively. The estimated concentrations of isoxaflutole and its metabolite RPA 202248 in ground and surface water were less than EPA's levels of concern. Therefore, EPA concludes with reasonable certainty that residues of isoxaflutole and its metabolite RPA 202248 in drinking water do not contribute significantly to the aggregate cancer human health risk at the present time.

3. *From non-dietary exposure.* There are no registered or proposed residential uses for isoxaflutole.

4. *Cumulative exposure to substances with common mechanism of toxicity.* Section 408(b)(2)(D)(v) requires that, when considering whether to establish, modify, or revoke a tolerance, the Agency consider ''available information'' concerning the cumulative effects of a particular pesticide's residues and ''other substances that have a common mechanism of toxicity.''

EPA does not have, at this time, available data to determine whether isoxaflutole has a common mechanism of toxicity with other substances or how to include this pesticide in a cumulative risk assessment. Unlike other pesticides for which EPA has followed a cumulative risk approach based on a common mechanism of toxicity, isoxaflutole does not appear to produce a toxic metabolite produced by other substances. For the purposes of this tolerance action, therefore, EPA has not assumed that isoxaflutole has a common mechanism of toxicity with other substances. For information regarding EPA's efforts to determine which chemicals have a common mechanism of toxicity and to evaluate the cumulative effects of such chemicals, see the Final Rule for Bifenthrin Pesticide Tolerances (62 FR 62961, November 26, 1997)(FRL–5754–7).

D. Aggregate Risks and Determination of Safety for U.S. Population

1. *Acute risk.* Separate acute dietary endpoints of concern were identified for use in risk assessment for females 13+ as compared to the general population including infants and children. The appropriate MOEs for acute dietary risk assessment are 3,000 for females 13+ and 1,000 for the general population including infants and children. For these acute dietary risk assessments, use of isoxaflutole on corn, anticipated residues were used since corn is a blended commodity. The high end MOE for the subgroup of females, 13+ was 10,000, and is no cause for concern given the need for a MOE of 3,000. The high end MOEs for the remaining populations all exceed 125,000, and

demonstrate no acute dietary concern given the need for a MOE of 1,000 for the general population including infants and children.

DWLOC's were calculated for acute exposures to isoxaflutole in surface and ground water for females 13+, the general population and children (1–6 years old). Relative to an acute toxicity endpoint, the acute dietary food exposure (from the DRES analysis) was subtracted from the ratio of the acute NOEL to the appropriate MOE to obtain the acceptable acute exposure to isoxaflutole in drinking water. Based on these calculations EPA's DWLOC for acute dietary risk is 4,200 ppb for the general population, 1,200 ppb for children (1–6 years old) and 36 ppb for females 13+. For acute dietary risk estimated maximum concentrations of isoxaflutole and its metabolites RPA 202248 and RPA 203328 were used. In surface water, isoxaflutole and its metabolites RPA 202248 and RPA 203328 are estimated to be 0.4 ppb, 2.0 ppb, and 10.0 ppb, respectively. Estimated maximum concentrations of isoxaflutole and its metabolites RPA 202248 and RPA 203328 in ground water are 0.00025 ppb, 0.23 ppb and 6.1 ppb, respectively. The maximum estimated concentrations of isoxaflutole and its metabolites RPA 202248 and RPA 203328 in surface and ground water were less than EPA's levels of concern for acute exposure in drinking water for the general population, females 13+ and children. Therefore, EPA concludes with reasonable certainty that residues of isoxaflutole and its metabolites RPA 202248 and RPA 203328 in drinking water do not contribute significantly to the aggregate acute human health risk at the present time.

2. *Chronic risk.* Using the ARC exposure assumptions described above, EPA has concluded that aggregate exposure to isoxaflutole from food will utilize 1% of the RfD for the U.S. population. The major identifiable subgroup with the highest aggregate exposure is discussed below. EPA generally has no concern for exposures below 100% of the RfD because the RfD represents the level at or below which daily aggregate dietary exposure over a lifetime will not pose appreciable risks to human health. Despite the potential for exposure to isoxaflutole in drinking water and from non-dietary, non-occupational exposure, EPA does not expect the aggregate exposure to exceed 100% of the RfD. EPA concludes that there is a reasonable certainty that no harm will result from aggregate exposure to isoxaflutole residues.

3. *Short- and intermediate-term risk.* Short- and intermediate-term aggregate exposure takes into account chronic dietary food and water (considered to be a background exposure level) plus indoor and outdoor residential exposure. There are no proposed residential uses for isoxaflutole. Therefore, short and intermediate aggregate risks are adequately addressed by the chronic aggregate dietary risk assessment.

4. *Aggregate cancer risk for U.S. population.* Using the linear approach and a Q_1* of 0.0114 resulted in an upper bound cancer risk of 9.3×10^{-8}. This linear risk estimate, for use of isoxaflutole on corn, is below EPA's level of concern for life time cancer risk. To calculate the DWLOC for chronic exposures relative to a carcinogenic toxicity endpoint, the chronic (cancer) dietary food exposure (from the DRES analysis) was subtracted from the ratio of the negligible cancer risk (1×10^{-6}) to the recommended linear low-dose extrapolation (Q_1*, 1.14×10^{-2}) to obtain the acceptable chronic (cancer) exposure to isoxaflutole in drinking water. DWLOCs were then calculated from this acceptable exposure using default body weights (70 kg) and drinking water consumption figures (2 liters). Based on this calculation EPA's DWLOC for carcinogenic risk is 3.1 ppb. Estimated annual mean concentrations of isoxaflutole and its metabolite RPA 202248 in surface water are 0.01 ppb and 1.7 ppb, respectively. Estimated annual average concentrations of isoxaflutole and its metabolites RPA 202248 in ground water are 0.00025 ppb and 0.23 ppb, respectively. The estimated concentrations of isoxaflutole and its metabolite RPA 202248 in ground and surface water were less than EPA's levels of concern. Therefore, EPA concludes with reasonable certainty that no harm will result from aggregate exposure to residues of isoxaflutole and its metabolites.

5. *Determination of safety.* Based on these risk assessments, EPA concludes that there is a reasonable certainty that no harm will result from aggregate exposure to isoxaflutole residues.

E. Aggregate Risks and Determination of Safety for Infants and Children

1. *Safety factor for infants and children*— i. *In general.* In assessing the potential for additional sensitivity of infants and children to residues of isoxaflutole, EPA considered data from developmental toxicity studies in the rat and rabbit and a two-generation reproduction study in the rat. The developmental toxicity studies are designed to evaluate adverse effects on the developing organism resulting from maternal pesticide exposure gestation. Reproduction studies provide information relating to effects from exposure to the pesticide on the reproductive capability of mating animals and data on systemic toxicity.

FFDCA section 408 provides that EPA shall apply an additional tenfold margin of safety for infants and children in the case of threshold effects to account for pre-and post-natal toxicity and the completeness of the data base unless EPA determines that a different margin of safety will be safe for infants and children. Margins of safety are incorporated into EPA risk assessments either directly through use of a margin of exposure (MOE) analysis or through using uncertainty (safety) factors in calculating a dose level that poses no appreciable risk to humans. EPA believes that reliable data support using the standard uncertainty factor (usually 100 for combined inter- and intra-species variability)) and not the additional tenfold MOE/uncertainty factor when EPA has a complete data base under existing guidelines and when the severity of the effect in infants or children or the potency or unusual toxic properties of a compound do not raise concerns regarding the adequacy of the standard MOE/safety factor.

ii. *Pre- and post-natal sensitivity.* As described in the Toxicological Endpoints section, Unit II.B. above, EPA has determined that the 10X safety factor to protect infants and children (as required by FQPA) should be retained based on the increased sensitivity of rat and rabbit fetuses as compared to maternal animals following *in utero* exposures in prenatal developmental toxicity studies, the concern for the developmental neurotoxic potential of isoxaflutole, and the lack of assessment of susceptibility of the offspring in functional/neurological development in the standard developmental/reproduction toxicity studies. Thus, a safety factor of 1,000 is required for infants and children, and includes the conventional 100X safety factor and 10X safety factor for FQPA.

2. *Acute risk.* The appropriate MOEs for acute dietary risk assessment is 1,000 for infants and children. For the acute dietary risk assessment, use of isoxaflutole on corn, anticipated residues were used since corn is a blended commodity. The high end MOE for infants and children exceed 125,000, and demonstrate no acute dietary concern given the need for a MOE of 1,000. DWLOC's were then calculated for acute exposures to isoxaflutole in surface and ground water. Relative to an acute toxicity endpoint, the acute

dietary food exposure (from the DRES analysis) was subtracted from the ratio of the acute NOEL to the appropriate MOE to obtain the acceptable acute exposure to isoxaflutole in drinking water. Based on these calculations, EPA's DWLOC for acute dietary risk is 1200 ppb for children (1–6 years old). For acute dietary risk, estimated maximum concentrations of isoxaflutole and its metabolites RPA 202248 and RPA 203328 were used. In surface water, isoxaflutole and its metabolites RPA 202248 and RPA 203328 are estimated to be 0.4 ppb, 2.0 ppb, and 10.0 ppb, respectively. Estimated maximum concentrations of isoxaflutole and its metabolites RPA 202248 and RPA 203328 in ground water are 0.00025 ppb, 0.23 ppb and 6.1 ppb, respectively. The maximum estimated concentrations of isoxaflutole and its metabolites RPA 202248 and RPA 203328 in surface and ground water were less than EPA's levels of concern for acute exposure in drinking water for infants and children. Therefore, EPA concludes with reasonable certainty that residues of isoxaflutole and its metabolites RPA 202248 and RPA 203328 in drinking water do not contribute significantly to the aggregate acute risk to infants and children at the present time.

3. *Chronic risk.* Using the exposure assumptions described above, EPA has concluded that aggregate exposure to isoxaflutole from food will utilize 1% of the RfD for infants and children. EPA generally has no concern for exposures below 100% of the RfD because the RfD represents the level at or below which daily aggregate dietary exposure over a lifetime will not pose appreciable risks to human health. Despite the potential for exposure to isoxaflutole in drinking water, EPA does not expect the aggregate exposure to exceed 100% of the RfD.

4. *Short- or intermediate-term risk.* There are no proposed residential uses for isoxaflutole. Therefore, short and intermediate aggregate risks are adequately addressed by the chronic aggregate dietary risk assessment.

5. *Determination of safety.* Based on these risk assessments, EPA concludes that there is a reasonable certainty that no harm will result to infants and children from aggregate exposure to isoxaflutole residues.

III. Other Considerations

A. Metabolism in Plants and Animals

The nature of the residue in plants is adequately understood. The major terminal residues of regulatory concern are the parent compound, isoxaflutole and its metabolites, RPA 202248 and RPA 203328. The nature of the residue in ruminants is also considered to be understood. The major terminal residues of regulatory concern are the parent compound, isoxaflutole and it metabolite, RPA 202248.

B. Analytical Enforcement Methodology

For plants, a modification of the gas chromatography/mass spectrometry detection (GC/MSD) method is used involving hydrolysis of residues of isoxaflutole to RPA 202248, conversion of RPA 202248 residues to RPA 203328, and then derivatization of RPA 203328 to a methyl ester for GC analysis. The limit of quantitation (LOQ) is 0.01 ppm. For animals, isoxaflutole is converted to RPA 202248 by base hydrolysis. RPA 202248 is with high performance liquid chromatography. The LOQ is 0.01 ppm for milk and eggs; 0.40 ppm for beef and poultry liver, 0.20 ppm for beef and poultry muscle and fat; and 0.20 ppm for beef kidney.

Adequate enforcement methodology is available to enforce the tolerance expression. The method may be requested from: Calvin Furlow, PRRIB, IRSD (7502C), Office of Pesticide Programs, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460. Office location and telephone number: Rm 101FF, Crystal Mall #2, 1921 Jefferson Davis Hwy., Arlington, VA 22202, (703–305–5229).

C. Magnitude of Residues

Residues of isoxaflutole and its metabolites are not expected to exceed the established tolerance levels in the raw agricultural commodities or on animal commodities as a result of this use.

D. International Residue Limits

There is neither a Codex proposal, nor Canadian or Mexican limits for residues of isoxaflutole and its metabolites in corn.

E. Rotational Crop Restrictions

An accumulation study on confined rotational crops was submitted. Isoxaflutole was applied to outdoor plots at a rate of 200 g a.i./hectare (0.18 lbs. ai/A) using preplant incorporation or preemergence application to separate plots. Lettuce, sorghum and radishes were planted 34 days after treatment; mustard, radishes and wheat were planted 123 days after treatment; and lettuce, sorghum and radishes were planted 365 days after treatment. All crops were harvested when mature. Immature samples of wheat and sorghum forage, radish roots and foliage and mustard or lettuce were also taken. The highest residue levels were seen in 34 days after treatment sorghum forage (0.13–0.24 ppm).

The petitioner has provided stability data only for the parent and two metabolites instead of investigating the stability of the metabolite profile present in the samples at harvest. Further, the data submitted indicate that isoxaflutole was extensively metabolized to RPA 202248 and RPA 203328 during storage. As RPA 202248 and RPA 203328 were the only metabolites identified and these metabolites are determined in the proposed enforcement method, the petitioner will not be required to repeat the confined rotational crop study. Due to uncertainties in the composition of the samples at harvest, EPA will base its conclusions from this study on the total radioactive residue. The results of this study show that residues are 0.01 ppm or greater in all crops at the 12–month plantback interval. Field accumulation studies in rotational crops are required to determine the appropriate plantback intervals and/or the need for rotational crop tolerances. Until limited field trial data are submitted, reviewed and found acceptable, crop rotation restrictions are required. The end-use product label should contain a statement limiting the planting of rotational crops to 6 months after application.

IV. Conclusion

Therefore, tolerances are established for combined residues of isoxaflutole [5-cyclopropyl-4-(2-methylsulfonyl-4-trifluoromethyl benzoyl) isoxazole] and its metabolites RPA 202248 and RPA 203328, calculated as the parent compound, in field corn, grain at 0.20 ppm; field corn, fodder, at 0.50 ppm, field corn, forage at 1.0 ppm; and tolerances are established for combined residues of the herbicide isoxaflutole [5-cyclopropyl-4-(2-methylsulfonyl-4-trifluoromethyl benzoyl) isoxazole] and its metabolite 1-(2-methylsulfonyl-4-trifluoromethylphenyl)-2-cyano-3-cyclopropyl propan-1,3-dione, calculated as the parent compound, in or on the meat of cattle, goat, hogs, horses, poultry, and sheep at 0.20 ppm, liver of cattle, goat, hogs, horses and sheep at 0.50 ppm, meat byproducts (except liver) of cattle, goat, hogs, horses, and sheep at 0.1 ppm, fat of cattle, goat, hogs, horses, poultry, and sheep at 0.20 ppm, liver of poultry at 0.3 ppm, eggs at 0.01 ppm and milk at 0.02 ppm.

V. Objections and Hearing Requests

The new FFDCA section 408(g) provides essentially the same process for persons to ''object'' to a tolerance

regulation issued by EPA under new section 408(e) and (l)(6) as was provided in the old section 408 and in section 409. However, the period for filing objections is 60 days, rather than 30 days. EPA currently has procedural regulations which govern the submission of objections and hearing requests. These regulations will require some modification to reflect the new law. However, until those modifications can be made, EPA will continue to use those procedural regulations with appropriate adjustments to reflect the new law.

Any person may, by November 23, 1998, file written objections to any aspect of this regulation and may also request a hearing on those objections. Objections and hearing requests must be filed with the Hearing Clerk, at the address given above (40 CFR 178.20). A copy of the objections and/or hearing requests filed with the Hearing Clerk should be submitted to the OPP docket for this rulemaking. The objections submitted must specify the provisions of the regulation deemed objectionable and the grounds for the objections (40 CFR 178.25). Each objection must be accompanied by the fee prescribed by 40 CFR 180.33(i). If a hearing is requested, the objections must include a statement of the factual issues on which a hearing is requested, the requestor's contentions on such issues, and a summary of any evidence relied upon by the requestor (40 CFR 178.27). A request for a hearing will be granted if the Administrator determines that the material submitted shows the following: There is genuine and substantial issue of fact; there is a reasonable possibility that available evidence identified by the requestor would, if established, resolve one or more of such issues in favor of the requestor, taking into account uncontested claims or facts to the contrary; and resolution of the factual issues in the manner sought by the requestor would be adequate to justify the action requested (40 CFR 178.32). Information submitted in connection with an objection or hearing request may be claimed confidential by marking any part or all of that information as Confidential Business Information (CBI). Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. A copy of the information that does not contain CBI must be submitted for inclusion in the public record. Information not marked confidential may be disclosed publicly by EPA without prior notice.

VI. Public Record and Electronic Submissions

EPA has established a record for this rulemaking under docket control number [OPP–300713] (including any comments and data submitted electronically). A public version of this record, including printed, paper versions of electronic comments, which does not include any information claimed as CBI, is available for inspection from 8:30 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The public record is located in Room 119 of the Public Information and Records Integrity Branch, Information Resources and Services Division (7502C), Office of Pesticide Programs, Environmental Protection Agency, Crystal Mall #2, 1921 Jefferson Davis Hwy., Arlington, VA.

Electronic comments may be sent directly to EPA at:

opp-docket@epamail.epa.gov.

Electronic comments must be submitted as an ASCII file avoiding the use of special characters and any form of encryption.

The official record for this rulemaking, as well as the public version, as described above will be kept in paper form. Accordingly, EPA will transfer any copies of objections and hearing requests received electronically into printed, paper form as they are received and will place the paper copies in the official rulemaking record which will also include all comments submitted directly in writing. The official rulemaking record is the paper record maintained at the Virginia address in ''ADDRESSES'' at the beginning of this document.

VII. Regulatory Assessment Requirements

A. Certain Acts and Executive Orders

This final rule establishes tolerances under FFDCA section 408(d) in response to a petition submitted to the Agency. The Office of Management and Budget (OMB) has exempted these types of actions from review under Executive Order 12866, entitled Regulatory Planning and Review (58 FR 51735, October 4, 1993). This final rule does not contain any information collections subject to OMB approval under the Paperwork Reduction Act (PRA), 44 U.S.C. 3501 *et seq.*, or impose any enforceable duty or contain any unfunded mandate as described under Title II of the Unfunded Mandates Reform Act of 1995 (UMRA) (Pub. L. 104–4). Nor does it require any prior consultation as specified by Executive Order 12875, entitled Enhancing the Intergovernmental Partnership (58 FR 58093, October 28, 1993), or special considerations as required by Executive Order 12898, entitled Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (59 FR 7629, February 16, 1994), or require OMB review in accordance with Executive Order 13045, entitled Protection of Children from Environmental Health Risks and Safety Risks (62 FR 19885, April 23, 1997).

B. Executive Order 12875

Under Executive Order 12875, entitled Enhancing Intergovernmental Partnerships (58 FR 58093, October 28, 1993), EPA may not issue a regulation that is not required by statute and that creates a mandate upon a State, local or tribal government, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by those governments. If the mandate is unfunded, EPA must provide to the Office of Management and Budget (OMB) a description of the extent of EPA's prior consultation with representatives of affected State, local and tribal governments, the nature of their concerns, copies of any written communications from the governments, and a statement supporting the need to issue the regulation. In addition, Executive Order 12875 requires EPA to develop an effective process permitting elected officials and other representatives of State, local and tribal governments ''to provide meaningful and timely input in the development of regulatory proposals containing significant unfunded mandates.''

Today's rule does not create an unfunded federal mandate on State, local or tribal governments. The rule does not impose any enforceable duties on these entities. Accordingly, the requirements of section 1(a) of Executive Order 12875 do not apply to this rule.

C. Executive Order 13084

Under Executive Order 13084, entitled Consultation and Coordination with Indian Tribal Governments (63 FR 27655, May 19,1998), EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments. If the mandate is unfunded, EPA must provide OMB, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation

with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected and other representatives of Indian tribal governments ''to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities.''

Today's rule does not significantly or uniquely affect the communities of Indian tribal governments. This action does not involve or impose any requirements that affect Indian Tribes. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this rule.

In addition, since tolerances and exemptions that are established on the basis of a petition under FFDCA section 408(d), such as the tolerances in this final rule, do not require the issuance of a proposed rule, the requirements of the Regulatory Flexibility Act (RFA) (5 U.S.C. 601 *et seq.*) do not apply. Nevertheless, the Agency has previously assessed whether establishing tolerances, exemptions from tolerances, raising tolerance levels or expanding exemptions might adversely impact small entities and concluded, as a generic matter, that there is no adverse economic impact. The factual basis for the Agency's generic certification for tolerance actions published on May 4, 1981 (46 FR 24950) and was provided to the Chief Counsel for Advocacy of the Small Business Administration.

VIII. Submission to Congress and the Comptroller General

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. This rule is not a ''major rule'' as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 180

Environmental protection, Administrative practice and procedure, Agricultural commodities, Pesticides and pests, Reporting and recordkeeping requirements.

Dated: September 11, 1998.

Stephen L. Johnson,

Acting Director, Office of Pesticide Programs.

Therefore, 40 CFR chapter I is amended as follows:

PART 180—[AMENDED]

1. The authority citation for part 180 continues to read as follows:

Authority: 21 U.S.C. 346a and 371.

2. By adding § 180.537 to read as follows:

§ 180.537 Isoxaflutole; tolerances for residues.

(a) *General.* (1) Tolerances are established for combined residues of the herbicide isoxaflutole [5-cyclopropyl-4-(2-methylsulfonyl-4-trifluoromethyl benzoyl) isoxazole] and its metabolites 1-(2-methylsulfonyl-4-trifluoromethylphenyl)-2-cyano-3-cyclopropyl propan-1,3-dione (RPA 202248) and 2-methylsulphonyl-4-trifluoromethyl benzoic acid (RPA 203328), calculated as the parent compound, in or on the following raw agricultural commodities:

Commodity	Parts per million
Field corn, fodder	0.50
Field corn, forage	1.0
Field corn, grain	0.20

(2) Tolerances are established for combined residues of the herbicide isoxaflutole [5-cyclopropyl-4-(2-methylsulfonyl-4-trifluoromethyl benzoyl) isoxazole] and its metabolite 1-(2-methylsulfonyl-4-trifluoromethylphenyl)-2-cyano-3-cyclopropyl propan-1,3-dione (RPA 202248), calculated as the parent compound, in or on the following raw agricultural commodities:

Commodity	Parts per million
Cattle, fat	0.20
Cattle, liver	0.50
Cattle, meat	0.20
Cattle, meat byproducts (except liver)	0.10
Eggs	0.01
Goat, fat	0.20
Goat, liver	0.50
Goat, meat	0.20
Goat, meat byproducts (except liver)	0.10
Hogs, fat	0.20
Hogs, liver	0.50
Hogs, meat	0.20
Hogs, meat byproducts (except liver)	0.10
Horses, fat	0.20
Horses, liver	0.50
Horses, meat	0.20
Horses, meat byproducts (except liver)	0.10
Milk	0.02
Poultry, fat	0.20
Poultry, liver	0.30
Poultry, meat	0.20
Sheep, fat	0.20
Sheep, liver	0.50
Sheep, meat	0.20
Sheep, meat byproducts (except liver)	0.10

(b) *Section 18 emergency exemptions.* [Reserved]

(c) *Tolerances with regional registrations.* [Reserved]

(d) *Indirect or inadvertent residues.* [Reserved]

[FR Doc. 98–25449 Filed 9–22–98; 8:45 am]

BILLING CODE 6560–50–F

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 180

[OPP–300712; FRL–6028–8]

RIN 2070–AB78

Flufenacet; Time-Limited Pesticide Tolerance

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This regulation establishes a time-limited tolerance for indirect or inadvertent residues of *N*-(4-fluorophenyl)-*N*-(1-methylethyl)-2-[[5-(trifluoromethyl)-1,3,4-thiadiazol-2-yl]oxy]acetamide and its metabolites containing the 4-fluoro-*N*-methylethyl benzenamine moiety hereafter referred to as flufenacet, the proposed common chemical name, in or on certain raw agricultural commodities when present therein as a result of the application of flufenacet to field corn and soybeans as a herbicide. Bayer Corporation requested this tolerance under the Federal Food, Drug and Cosmetic Act (FFDCA), as amended by the Food Quality Protection Act of 1996 (Pub. L. 104-170). The tolerance will expire on April 30, 2003.

DATES: This regulation is effective September 23, 1998. Objections and requests for hearings must be received by EPA on or before November 23, 1998.

ADDRESSES: Written objections and hearing requests, identified by the docket control number, [OPP–300712],