

FDA, in accordance with proposed § 106.120(b)(5), to provide assurance that the infant formula meets the quality factor requirements set forth in subpart E of part 106. FDA has tentatively concluded that agency access to study records and data are necessary so that it can ensure that study results are meaningfully interpretable, and that the manufacturer's conclusion that the infant formula meets the quality factor requirements withstands scientific scrutiny and evaluation. Failure to adequately document study results and interpretation raises questions as to the validity of conclusions and could mean that infants have been unnecessarily subjected to testing procedures.

Proposed § 106.121(a) requires that the manufacturer submit an explanation, in narrative form, setting forth its conclusions on how all quality factor requirements of subpart E of part 106 have been met. This narrative will facilitate the agency's review by summarizing the results, and their interpretation, that provide the basis on which the manufacturer has concluded that the quality factor requirements have been met, or that the subject infant formula is eligible for the exemptions described in proposed § 106.97(a)(2) and (b)(2).

Proposed § 106.121(b) requires that the manufacturer submit records that contain the information collected during the study for each infant enrolled in the study. The measurements and information collected for each infant enrolled in the study are necessary to an evaluation of whether the infant formula supported healthy growth. Proper identification of the records is necessary for proper use and analysis of the records.

Proposed § 106.121(c)(1) requires that the manufacturer submit a statistical evaluation of the data from the clinical study, including group means, group standard deviations, and measures of statistical significance for all measurements for each feeding group at the beginning of the study and at every point where measurements were made throughout the study. This evaluation forms the basis for the manufacturer's conclusion as to whether the formula meets the quality factor requirements. Without knowledge of the statistical basis upon which the manufacturer drew its conclusions, FDA would not have sufficient information to evaluate the conclusions reported by the manufacturer.

Proposed § 106.121(c)(2) requires that the manufacturer submit a calculation of the statistical power of the study at its completion. Proposed § 106.97(a)(1)(ii)(E) recommends that

the power calculation used to design the study be included in the study protocol. FDA is aware that circumstances (e.g., attrition, difficulty in recruiting sufficient numbers of infants, unexpectedly high measurement error in a particular variable) may unintentionally result in sample sizes and feeding group assignments that lack adequate statistical power for detecting differences between treatment and control groups, regardless of the apparent adequacy in planning for the study protocol. Reviewers must be aware of changes in the statistical power of a study so that they do not inadvertently misinterpret the absence of differences that occur between different formulas as meaning there are no differences. Failure to detect differences, if they are real, could result in erroneously concluding that a formula is safe and suitable for its intended use when, in fact, it is not. The agency is proposing to require that the manufacturer submit this calculation to FDA so that the agency can meaningfully review and interpret the data and study results contained in the submission.

Proposed § 106.121(d) requires that the manufacturer submit reports on attrition and on all occurrences of adverse events during the study.

FDA has tentatively found that information on the occurrence of adverse events is a critical element of the data that must be evaluated to determine whether a formula meets quality factor requirements and is safe and suitable for infants. Adverse events associated with the use of an infant formula, although unexpected, can be a sign or symptom of a nutritional inadequacy or of a safety problem with the infant formula, and failure to use these results could result in inadvertent release of an unsafe product. Conversely, adverse events can be unrelated to a formula product (e.g., flu), but their occurrence can affect the way in which results are interpreted and used. For example, illnesses can influence the interpretation of growth data and of the laboratory measurements collected to evaluate the infant formula.

For these reasons, FDA has tentatively concluded that complete reports, including the results of followup investigations, on the occurrence of all adverse events during the study, regardless of whether the adverse events are attributable to the use of the new infant formula or to some other illnesses, are necessary to properly evaluate the conclusions drawn from a clinical study (proposed § 106.121(d)(1)). FDA has tentatively concluded that a complete report on the

occurrence of an adverse event must include identification of the infant by subject number to permit evaluation of infant growth measurements; identification of the feeding group to show whether there is a pattern of adverse events in one feeding group versus another; and a complete description of the adverse event, including comparisons of the frequency of occurrence in each feeding group and information on the health of the infants during the course of the study, including the occurrence and duration of any illness, that occurred during the trial, so that it is possible to evaluate the significance of the illness.

As discussed above, it is very important to be able to evaluate whether the adverse event is a result of a nutritional quality factor problem with the formula product. The results and evaluation of the infant's clinical status are essential to make this evaluation, and the health of the infant is also relevant to interpreting study endpoints, for example, growth data. Therefore, knowledge of the infant's health status is an essential piece of information in evaluating the circumstances surrounding an observed adverse event associated with use of a formula product. Thus, FDA has tentatively concluded that evaluations by a health care professional are necessary to provide the agency with relevant information on the circumstances surrounding the adverse event (see § 106.121(d)(2)) to assist the agency in evaluating the nutritional adequacy and safety of the formula product for supporting healthy growth in infants. In some cases, this clinical assessment may be carried out by the infant's health care provider, rather than the investigators conducting this clinical study, because some parents will contact the infant's health care provider if the infant experiences any adverse event during the course of the study. The agency expects that the study investigators will take sufficient measures to obtain all available information to enhance the likelihood of being able to meaningfully interpret the likely relationship of the adverse event to the formula product and its impact on study conclusions.

Attrition of infants from a study can result not only from adverse events and illnesses but also from a variety of reasons having no bearing on whether the new infant formula meets the quality factor requirements. For example, an infant enrolled in the study may be withdrawn from the study because the parents moved from the area. The effect of attrition on study results, however, must be evaluated in order to be able to meaningfully

interpret those results. To properly evaluate the impact of attrition on study results, FDA must have information that permits it to evaluate the likely cause of the attrition and its relationship to product use and study measurements. Therefore, the agency is proposing to require the submission of this information on attrition under § 106.121(d)(3).

Proposed § 106.121(e) requires that the manufacturer submit the results of the Protein Efficiency Ratio. This proposed submission requirement is necessary to provide assurance that the manufacturer has complied with proposed § 106.97(b) and to provide assurance that the infant formula meets the specific quality factor for protein quality.

Under proposed § 106.121(f), the manufacturer is required to submit a statement certifying that it has collected and considered all information and data on the ability of the infant formula to meet the quality factor requirements, and that it is not aware of anything that would show that the formula does not meet the quality factors. This proposed requirement is necessary to provide assurance that the manufacturer has complied with the regulations and considered all information and data of which it is aware, and that it has not made a selective submission of information that gives a false impression of the degree or extent to which a formula meets the quality factor requirements.

5. Verification Submissions

Proposed § 106.130(a) requires that manufacturers, after the first production, but before the introduction into interstate commerce, of a new infant formula, verify in a written submission that the infant formula complies with the requirements of the act and is not adulterated. This proposed requirement implements section 412(d)(2) of the act, which requires the submission of a written verification that summarizes test results and records demonstrating that a formula meets the requirements of section 412(b)(1), (b)(2)(A), (b)(2)(B)(i), (b)(2)(B)(iii), (b)(3)(A), (b)(3)(C), and (i) of the act. The failure to provide the notice required by section 412(d) of the act is a prohibited act under section 301(s) of the act.

Proposed § 106.130(b)(1) requires that the verification submission include the name of the new infant formula, the filing date for the new infant formula submission required under proposed § 106.120, and the identification number assigned by FDA to the new infant formula submission, so that FDA is able

to match the verification submission with the appropriate new infant formula submission.

Proposed § 106.130(b)(2) requires that the verification submission include a statement that the infant formula to be introduced into interstate commerce is the same as that which was the subject of the new infant formula submission and for which the manufacturer provided assurances in accordance with the requirements of proposed § 106.120. FDA has tentatively concluded that if this statement can be made by the manufacturer, it means that the assurances that the manufacturer provided in the new infant formula submission with respect to the quality factor requirements and the safety of the ingredients remain relevant and applicable to the product. Thus, no additional information need be included in the verification to demonstrate compliance, in accordance with section 412(d)(2) of the act, with section 412(b)(1) or with this aspect of section 412(b)(2)(A).

Proposed § 106.130(b)(3) requires a summary of test results that show the levels of each nutrient required by § 107.100 in the formula and of any nutrient added by the manufacturer. This proposed requirement is necessary to demonstrate compliance with section 412(i) of the act. Section 412(i) of the act sets forth those nutrients that an infant formula must contain in order not to be adulterated, and the submission of a summary of test results as required by section 412(d)(2), and implemented by § 106.130(b)(3), is necessary to show that an infant formula, after the first production, contains all of the required nutrients at the required levels.

FDA has tentatively concluded that it is not necessary to require that the verification submission summarize test results or records demonstrating compliance with sections 412(b)(2)(A) and (b)(2)(B)(iii) of the act because the underlying records will be available for inspection by FDA. FDA has tentatively concluded that to require the manufacturer to create a report based on these records would be to require an unnecessary expenditure of effort. However, the agency is proposing to require (under § 106.130(b)(4)) that the manufacturer certify as a part of its verification submission that it has established procedures that comply with sections 412(b)(2)(A) and (b)(2)(B)(iii) of the act.

FDA has tentatively concluded that requiring additional test results or records demonstrating compliance with section 412(b)(2)(B)(i), (b)(3)(A), and (b)(3)(C) of the act would be unnecessary because such showings

would be subsumed in the testing to show whether the formula meets the requirements of § 107.100 (under § 106.130(b)(3)).

Proposed § 106.130(c) makes clear the consequences of failing to comply with § 106.130 and that in such circumstances, the agency will notify the submitter that the notice is not adequate, and that the manufacturer has not met the requirements of section 412(d)(2) of the act.

6. Submissions Concerning a Change in Infant Formula That May Adulterate the Product

Proposed § 106.140(a) provides that, when a manufacturer makes a change in the formulation or processing of the formula that may affect whether the formula is adulterated under section 412(a) of the act, it shall make a submission to FDA before the first processing of such formula. This proposed requirement implements section 412(d)(3) of the act, which requires that manufacturers make the submission to FDA required by section 412(d)(1) of the act before first processing when they determine that a change in formulation or in the processing of an infant formula may affect whether the formula is adulterated under section 412(a) of the act. Examples of changes that may affect whether a formula is adulterated under section 412(a) of the act include, but are not limited to:

(1) A change in the level of an ingredient that does not constitute a major change but that may affect whether the formula meets the requirements of section 412(i) of the act (for example, decreasing the amount of an ingredient such as sodium chloride could affect whether the formula provides two nutrients required by § 107.100);

(2) A change in an ingredient in an infant formula that does not constitute a major change but that may affect whether the formula meets the quality factor requirements of subpart E of part 106 (for example, a change in the level of an emulsifier could result in a change in the bioavailability of fat because the emulsifier may interfere with fat digestion); or

(3) A change in the processing of the infant formula that does not constitute a major change but that may affect whether the CGMP requirements or the quality control procedures of subparts B and C of part 106 are met (for example, a change in the processing of the infant formula may affect whether a specification or a standard for a particular point in the manufacturing process where control is deemed

necessary to prevent adulteration is met; a change in a processing temperature or holding time may allow microorganisms to develop in violation of § 106.55; or a change in a processing temperature may affect the level of a labile (temperature sensitive) nutrient in the formula).

Proposed § 106.140(b)(1) requires that the submission include information on the name and physical form of the product, so that the change in the formula can be evaluated with other information that the agency has received on the formula, and so that an accurate evaluation of the product can be made because different requirements may apply to different forms of a formula.

Proposed § 106.140(b)(2) requires an explanation of why the change in formulation or processing may affect whether the formula is adulterated, so that the agency can determine what type of evaluation the submission requires. For example, if a change in formulation may affect nutrient levels, the agency needs to evaluate the nutrient content of the formula to be assured that this formulation change will not lead to production of a formula that will not provide a required nutrient at the required amount. Likewise, if a change in processing may affect whether the formula is adulterated, the agency will need to evaluate the formula's processing to be assured that the processing of the formula will still comply with the CGMP regulations in subpart B of part 106.

Proposed § 106.140(b)(3) requires that the submission comply with § 106.120(b)(3), (b)(4), (b)(5), and (b)(6). This proposed requirement implements section 412(d)(3) of the act, which provides that manufacturers make the submission required by section 412(d)(1). FDA has tentatively concluded that requiring that the submission comply with these aspects of § 106.120(b) will promote consistency in the form and substance of the information that industry must submit, and FDA must review. If the information required on processing by § 106.120(b)(4) has already been provided in compliance with § 106.140(b)(2) as a part of the explanation of why the change in processing may affect whether the formula is adulterated, the same information does not need to be repeated in the submission. To avoid redundant submissions, proposed § 106.140(b)(3) further provides that if the information required by § 106.120(b)(3), (b)(4), (b)(5), or (b)(6) has been provided to the agency previously, and that information is not affected by the change that is the subject of the submission, a statement to that

effect, together with the identification number assigned by the agency to the relevant infant formula submission, can be provided in lieu of a new submission.

Proposed § 106.140(b)(3) requires inclusion of the identification number assigned by the agency to the infant formula submission so that the agency can have ready access to the relevant information that was previously submitted. For example, if the manufacturer makes a submission as a result of a change in processing, but the formulation will remain the same, the manufacturer need not provide the information required by § 106.120(b)(3). Likewise, if the manufacturer makes a submission as a result of a change in formulation, but the processing of the formula remains the same, the manufacturer need not submit the information required by § 106.120(b)(4).

A determination of whether the assurances required by § 106.120(b)(5) and (b)(6) need to be given is based on the manufacturer's reason for providing the submission. For example, if the submission is provided because a change in formulation or processing may affect whether the formula is adulterated because it does not meet the quality factors set forth in subpart E of part 106, the assurance required by § 106.120(b)(5)(i) would have to be provided. Likewise, if the submission is provided because a change in formulation or processing may affect whether the formula is adulterated because it does not meet the nutrient requirements of § 107.100, the assurance required by § 106.120(b)(5)(ii) would have to be provided. Further, if the submission is provided because a change in processing may affect whether the formula is adulterated because the processing of such formula may no longer be in compliance with CGMP or with appropriate quality control, as set forth in subparts B and C of part 106, or whether the formula is manufactured in a manner designed to prevent adulteration, the assurance required by § 106.120(b)(6) would have to be provided.

In proposed § 106.140(c), the agency sets forth requirements necessary to ensure that the data and other information provided in the submission are in a form that will allow FDA to complete its review in a timely manner and to advise the manufacturer if the agency has any concerns about the marketing of the formula. Proposed § 106.140(c) also makes clear that the agency will notify the submitter if the notice is not adequate because it does not meet the requirements of section 412(d)(3) of the act.

7. Notification of an Adulterated or Misbranded Infant Formula

If FDA adopts the other regulations that it has proposed, it will redesignate current §§ 107.240(a) and (b) as § 106.150 so that all notification requirements on infant formulas can be found in one place in the agency's regulations. In § 106.150(b), FDA has revised the address to reflect the reorganization of CFSAN.

H. Conforming and Editorial Changes to Part 107—Infant Formula

The agency is making conforming and editorial changes to part 107 to reflect the changes made by the 1986 amendments and the regulations that FDA is proposing to adopt in part 106. The references in part 107 to the Division of Regulatory Guidance are being changed to the Division of Enforcement to reflect the reorganization of CFSAN in November 1992.

1. Changes in Subpart A

The agency is proposing to add a new § 107.1 which will parallel proposed § 106.1. Proposed § 107.1 describes the authority for each of the proposed subparts and the consequences under the act of failure to comply with any of the regulations in the proposed subparts.

2. Changes in Subpart B of Part 107—Labeling

The agency is proposing to amend § 107.10 to require a statement of the amount, supplied by 100 kcal, of each of any nutrient added by the manufacturer as well as of the listed nutrients. As discussed previously in the quality control section of this document, infant formula manufacturers are adding ingredients to infant formula to provide nutrients, such as selenium, that are not required by § 107.100 to be in infant formulas. The proposed change to § 107.10 requires that the amount of the added nutrients supplied by 100 kcal of the formula be declared on the label of the infant formula. This proposed requirement is necessary to inform the consumer on a consistent basis of the level of all nutrients included in an infant formula.

3. Subpart C of Part 107—Exempt Infant Formulas

At this time the agency is not proposing to revise the regulations in § 107.50 pertaining to infant formulas that are subject to section 412(h) of the act. These regulations were finalized in 1985 (50 FR 48183), before passage of the 1986 amendments. In the near future, the agency intends to reevaluate

the exempt infant formula regulations and the effect of the 1986 amendments on exempt infant formulas and to issue a proposed rule to reflect the results of this reevaluation. The agency also plans to evaluate the effect of the Nutrition Labeling and Education Act of 1990 (Pub. L. 101-535) (the 1990 amendments) on the regulations for exempt infant formulas. Exempt infant formulas are specifically exempted from requirements for health claims and nutrient content claims by section 403(r)(5)(A) of the act. The basis for being an exempt infant formula, according to section 412(h)(1) of the act, is how the product is represented and labeled for use. This category of infant formula recognizes that infants who suffer from special medical disorders, such as maldigestion and malabsorption, inborn errors of metabolism such as phenylketonuria or maple syrup urine disease, or severe kidney disease, require formulas tailored specifically to their medical needs. Therefore, it is important that any claims made for these products be truthful, not misleading, and adequately substantiated because these infants make up a vulnerable population and must receive the appropriate nutrients for their medical condition. Because these formulas are exempt from the regulations governing claims that were developed under the 1990 amendments, the agency plans to evaluate how claims for these products need to be substantiated to ensure that infants with special nutritional needs are receiving appropriate infant formulas.

4. Subpart E—Infant Formula Recalls

Current § 107.240(a) sets out the requirements for notification of a violative infant formula, and current § 107.240(b) sets out the method of notification. As stated above, the agency is moving the provisions of current § 107.240(a) and (b) to § 106.150, so that all of the agency's notification requirements are in one place. The agency is renumbering current § 107.240(c)(1), (c)(2), and (c)(3) as § 107.240(a), (b), and (c).

Section 107.250 gives directions on the termination of an infant formula recall. The agency is changing the reference to the Division of Regulatory Guidance to the Division of Enforcement in § 107.250 to reflect the 1992 reorganization of CFSAN.

V. Environmental Impact

The agency has carefully considered the potential environmental effects of this action. FDA has concluded that the action will not have a significant impact on the human environment, and that an

environmental impact statement is not required. The agency's finding of no significant impact and the evidence supporting that finding, contained in an environmental assessment, may be seen in the Dockets Management Branch (address above) between 9 a.m. and 4 p.m., Monday through Friday.

VI. Analysis of Impacts

FDA has examined the impacts of the proposed rule under Executive Order 12866 and the Regulatory Flexibility Act (Pub. L. 96-354). Executive Order 12866 directs agencies to assess all costs and benefits of available regulatory alternatives and, when regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity). According to Executive Order 12866, a regulatory action is "economically significant" if it meets any one of a number of specified conditions, including having an annual effect on the economy of \$100 million or adversely affecting in a material way a sector of the economy, competition, or jobs. A regulation is considered "significant" under Executive Order 12866 if it raises novel legal or policy issues.

The Regulatory Flexibility Act requires Federal agencies to minimize the economic impact of their regulations on small businesses. FDA finds that this proposed rule is neither an economically significant nor a significant regulatory action as defined by Executive Order 12866. In compliance with the Regulatory Flexibility Act, the agency certifies that this proposed rule, if issued, will not have a significant impact on a substantial number of small businesses. Therefore, under the Regulatory Flexibility Act, no further analysis is required. The agency examined three options in determining the economic impact of this proposed regulations. A summary of the options follow:

A. Options

FDA has three primary options: (1) Adopt regulations with more stringent requirements than the proposed regulations; (2) adopt the proposed regulations; or (3) adopt regulations with less stringent requirements than the proposed regulations.

1. Option 1—Adopt Regulations More Stringent Than the Proposed Regulations

FDA believes infant formula manufacturers already comply with most of the requirements of this

proposed rule. One option would be to add provisions to this proposed rule that would require activity beyond that which is currently engaged in by infant formula manufacturers or that is likely to be engaged in by manufacturers entering the infant formula industry. Potential requirements of this type include specific production and in-process control systems, specific equipment or types of personnel, and additional testing and recordkeeping.

Under this option, incumbent manufacturers would face higher production costs and would pass most of the costs on to consumers of infant formula. In addition, the startup and operating costs would increase, and thus discourage entry into the infant formula industry. The ability of new firms to enter an industry is an important element in promoting price competition and innovation. These additional requirements would reduce price competition in the infant formula industry.

The price of infant formula is probably linked to certain risky infant feeding practices. With very high infant formula prices, some consumers may increase risks to infants by improperly diluting formula with water or other substances; using inappropriate substitutes for formula or breast milk; or prematurely switching from formula to cow's milk. For example, preliminary results of an FDA study on infant formula feeding practices showed that approximately 20 percent of infants (younger than 2 months) had their formula diluted by cereal, which is cheaper than infant formula.

2. Option 2—Adopt the Proposed Regulations

There are two types of costs associated with this option: precluded future cost cutting behavior and direct compliance costs.

a. *Future cost cutting behavior.* This type of cost may arise because the proposed rule precludes cost cutting behavior by either incumbent firms or firms entering the infant formula industry. Infant formula manufacturers currently undertake a considerable amount of activity, such as infant growth studies, that is designed to ensure the safety of infant formula but is not explicitly required by either current law or regulation. In the absence of this regulation, which mandates this activity, either incumbent or future manufacturers may choose not to undertake this activity in the future. However, because of reputation effects and liability laws, these costs are likely to be low.

b. *Direct compliance costs.* (i). *CGMP.*

FDA believes that infant formula manufacturers already comply with most of the proposed CGMP's. These CGMP's include those dealing with: (1) Production and in-process control systems, including the evaluation of any deviation from these procedures or from established standards or specifications; (2) controls designed to prevent adulteration of infant formula by workers, by facilities, and during packaging and labeling; (3) controls to prevent adulteration during manufacturing, including recording and justifying deviations from the master manufacturing order and evaluating deviations from processing times; (4) controls on the release and storage of finished infant formula; (5) all requirements relating to batch production and control records, and to coding; and (6) all requirements dealing with general quality control procedures, including the testing of one batch of each physical form of infant formula at least once every 3 months.

If all manufacturers already comply with these proposed CGMP's, then no compliance costs will result from them. FDA requests comments on whether all infant formula manufacturers are already in compliance with the proposed CGMP's listed above.

FDA believes that all infant formula manufacturers already comply with the proposed CGMP's dealing with controls to prevent adulteration caused by ingredients, containers, and closures. The provision that FDA may object to the use of a particular substance in an infant formula during its prenotification review of ingredients used in a formula because it believes that the substance is not safe and suitable for that use does not represent a change in the way FDA reviews infant formula ingredients. This provision recognizes the fact that manufacturers may make independent GRAS determinations about ingredients. When a manufacturer makes such a determination, that manufacturer is not necessarily required to have the relevant ingredient affirmed as GRAS by FDA. However, FDA is reserving the right to review infant formula ingredient lists and documentation concerning whether particular ingredients are safe and suitable for use in infant formula. Theoretically, this provision could lead to a reduction in the number of ingredients that are independently determined to be GRAS and a corresponding increase in the number of ingredients for which food additive petitions are required. Petitions for direct food additives can take between 1 to 6 years to complete and cost approximately \$1 million per year.

However, because manufacturers of infant formula generally obtain FDA concurrence on the safety and suitability of ingredients used in infant formula before making these determinations, FDA believes no additional compliance costs will be generated by this provision.

FDA also believes that infant formula manufacturers already comply with many of the other proposed CGMP's. Provisions of CGMP's that some infant formula manufacturers may not currently be in compliance include the following:

(1) Controls to prevent adulteration caused by equipment or utensils. Some manufacturers may not repair or replace instruments and controls when those instruments and controls cannot be adjusted to within essential agreement with the reference standard. In addition, most manufacturers probably do not perform a written evaluation of all affected product, or of actions taken when calibration results indicate that a specification or standard for a point where control is deemed necessary to prevent adulteration has not been met. FDA cannot estimate the repair or replacement costs of instruments and controls at this time. Written evaluations will take a supervising technician an estimated 2 hours to complete, which will generate some small compliance costs.

(2) Controls to prevent adulteration because of automatic, mechanical, and electronic equipment. Most manufacturers will probably have to perform additional analysis of software modifications. FDA preliminarily estimates this analysis will add approximately 1 month to the time required to analyze programming and software modifications. One or two software modifications are probably made each year at each of the fifteen plants that produce infant formula. Assuming that a single computer scientist works on the additional activity required, compliance costs are estimated to be about \$100,000 per year.

ii. *Audits, Quality factors, registration and notification requirements, and infant formula recalls.* FDA believes that infant formula manufacturers already comply with the following provisions: (1) Regularly scheduled audits to determine compliance with CGMP's and Quality Control Procedures (QCP's), (2) growth and development studies to be submitted under certain conditions and new notification requirements (FDA already requests and receives these quality factor growth and development studies and notification material based on FDA's interpretation of the language of the 1986

amendments), and (3) all provisions involving registration and notification requirements.

If infant formula manufacturers are already complying with these provisions, then no compliance costs will be generated by these provisions.

FDA requests information on whether all infant formula manufacturers already comply with all provisions listed above, particularly those provisions dealing with quality factors.

iii. *Records.* Under the current proposal, the records produced and maintained by infant formula manufacturers to establish compliance with FDA regulations will have to be expanded to include all new CGMP's and QCP's. FDA believes most of the specified records are already being kept by all firms; however, some records may not be. A plausible assumption is that current annual industry expenditures on recordkeeping may increase by about 10 percent, or \$450,000 per year based on information received from industry on current recordkeeping costs. FDA requests information on the cost of increased recordkeeping.

iv. *Administrative costs.* Interpreting and implementing changes in CGMP and QCP regulations generate administrative costs even when all activity required in those CGMP's and QCP's is already being done. FDA does not have information on the administrative costs involved in interpreting and implementing changes in CGMP and QCP regulations; however, it is plausible to suppose that 20 percent of the total compliance costs other than administrative costs may be used to reflect administrative costs.

Administrative costs under this assumption would be approximately \$100,000 and would accrue in the first year only. FDA requests information on administrative costs.

3. Option 3—Adopt Regulations Less Stringent Than the Proposed Regulations

Another option is to limit the activity required by this proposed rule to activity already engaged in by all incumbent infant formula manufacturers. In this case, there would be no compliance costs based on current behavior. However, in the absence of this proposed rule, incumbent or new manufacturers might choose not to undertake all activity specified in this proposed rule. Therefore, the only costs associated with this option are the costs associated with precluded potential future behavior on the part of incumbent or new manufacturers.