DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

Antimicrobial Animal Drug Sales and Distribution Reporting

Docket No. FDA-2012-N-0447

Final Regulatory Impact Analysis

Final Regulatory Flexibility Analysis

Unfunded Mandates Reform Act Analysis

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I. Introduction and Summary

We have examined the impacts of the final rule under Executive Order 12866, Executive Order 13563, the Regulatory Flexibility Act (5 U.S.C. 601-612), and the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4). Executive Orders 12866 and 13563 direct us 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). We have developed a comprehensive Economic Analysis of Impacts that assesses the impacts of the final rule. We believe that this final rule is not a significant regulatory action as defined by Executive Order 12866.

The Regulatory Flexibility Act requires us to analyze regulatory options that would minimize any significant impact of a rule on small entities. Because the final rule will impose average annualized costs that amount to less than 0.01 percent of average annual revenues on those small entities that currently sponsor or we expect to sponsor new animal drug applications, we have determined that the final rule will not have a significant economic impact on a substantial number of small entities.

The Unfunded Mandates Reform Act of 1995 (section 202(a)) requires us to prepare a written statement, which includes an assessment of anticipated costs and benefits, before proposing "any rule that includes any Federal mandate that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of $100,000,000 or more (adjusted annually for inflation) in any one year." The current threshold after adjustment for inflation is $144 million, using the most current (2014) Implicit Price Deflator for the Gross Domestic Product. This final rule will not result in an expenditure in any year that meets or

exceeds this amount.

A. Summary of Final Regulatory Impacts Analysis

1. Industry Costs

We estimate one-time costs to industry from this final rule at about $134,600. We estimate annual costs at about $57,300. These costs equate to an estimated total annualized cost of about $76,500 at a 7 percent discount rate over 10 years and about $73,100 at a 3 percent discount rate over 10 years (table 1). The total annualized costs include the administrative cost to review the rule ($8,800) plus the cost to request the change of date and prepare the special one-time Drug Experience Report (DER) ($4,900) plus the cost of providing the species-specific estimates of the percent of the drug product distributed domestically ($62,700).

2. Benefits

The final rule will improve the new animal drug records and reporting process. It will also enhance our understanding of antimicrobial animal drug sales intended for use in specific food-producing animal species and the contribution of these drugs to the emergence or selection of antimicrobial resistant bacteria.

The final rule will provide some flexibility in terms of the manner in which new animal drug sponsors report the sales and distribution data under both § 514.80(b)(4) and final § 514.87, by allowing the sponsor the option to satisfy its obligations under both provisions by submitting only one set of report submissions under certain circumstances. We estimate that this will reduce labor costs for new animal drug sponsors by $103,200 annually.

Another benefit of this final rule will be the cost savings associated with sponsors reporting monthly sales and distribution data in terms of units of product sold or distributed rather than calculating the amount of antimicrobial active ingredients associated with these

monthly product sales and distribution data, as is currently the case. We estimate the calculation reductions will amount to an annual benefit to animal drug sponsors of about $19,100. We estimate total annual benefits to industry at about $122,300.

Table 1.--Costs and Benefits of Final Rule ($ million)

	1-Time Cost and Benefits	Total Annualized Costs and Benefits at 7%[1]
Industry Costs	$134,600	$76,500
Government Costs		N/A
Industry Benefits		$122,300

[1]Total annualized costs and benefits are equal to annualized one-time cost at 7 percent over 10 years.

In table 2, we provide the Regulatory Information Service Center/Office of Information and Regulatory Affairs Consolidated Information System accounting information.

Table 2.--Economic Data: Costs and Benefits Statement

				Units			
Category	Primary Estimate	Low Estimate	High Estimate	Year Dollars	Discount Rate	Period Covered	Notes
Benefits							
Annualized	$0.122			2014	7%		
Monetized $millions/year	$0.122			2014	3%		
Annualized Quantified					7%		
					3%		
Qualitative							
Costs							
Annualized	$.076			2014	7%		
Monetized $millions/year	$.073			2014	3%		
Annualized Quantified					7%		
					3%		
Qualitative							
Transfers							
Federal					7%		
Annualized Monetized $millions/year					3%		
From/To	From:			To:			
Other					7%		
Annualized Monetized $millions/year					3%		
From/To	From:			To:			
Effects							
State, Local or Tribal Government: No Effect							
Small Business: No effect							
Wages: No estimated effect							
Growth: No estimated effect							

The Economic Analysis of Impacts of the final rule performed in accordance with Executive Order 12866, Executive Order 13563, the Regulatory Flexibility Act, and the Unfunded Mandates Reform Act is available at http://www.regulations.gov under the docket number(s) for this final rule and at http://www.fda.gov/AboutFDA/ReportsManualsForms/Reports/EconomicAnalyses/default.htm

II. Objective and Description of the Final Rule

This final rule amends the Agency's existing records and reports regulation in part 514 (21 CFR 514) to incorporate sales and distribution data reporting requirements specific to sponsors of antimicrobial new animal drugs sold or distributed for use in food-producing animals who must report annually under section 512(l)(3) of the Federal Food, Drug, and Cosmetic Act (FD&C Act). These requirements were added to the FD&C Act by section 105 of the Animal Drug User Fee Amendments of 2008 (ADUFA 105)(Public Law 110-316). This final rule also includes a reporting provision, based on our broader authority under 512(l)(1), intended to further enhance our understanding of antimicrobial animal drug sales intended for use in specific food-producing animal species and the relationship between such data and antimicrobial resistance.

The final rule adds procedures for the submission of annual sales and distribution data reports by sponsors of approved or conditionally approved antimicrobial new animal drug products sold or distributed for use in food-producing animals. The rule includes specific reporting criteria, including the requirement that sponsors submit species-specific estimates of product sales as a percentage of total sales. It also includes procedures applicable to our preparation and publication of annual summary reports of the sales data we receive from

antimicrobial new animal drug sponsors. These include specific content requirements for the annual summary reports, as well as explicit provisions intended to protect confidential business information and national security. And lastly, it contains provisions that give sponsors of approved antimicrobial new animal drug products the opportunity to avoid duplicative reporting of product sales and distribution data to us under part 514.

Background

Section 512(l)(1) of the FD&C Act (21 U.S.C. 360b(l)(1)) requires sponsors of approved new animal drugs to establish and maintain records and make such reports of data relating to experience with uses and other data or information received or obtained by the sponsor with respect to such drug as required by regulation or order. Part 514 of FDA's regulations (21 CFR part 514) implements section 512(l) and requires new animal drug sponsors to report various types of information to FDA relating to their approved drug products, including periodic drug experience reports under 21 CFR 514.80(b)(4). Such reports must contain detailed information as specified in the regulations, including information concerning the quantities of the animal drug product distributed under the sponsor's approved application The requirement for periodic reports under section 514.80(b)(4) applies to all sponsors of approved new animal drug products and is separate from the reporting requirements subsequently established under ADUFA 105 relating to antimicrobial new animal drugs.

In an effort to address mounting public health concerns about antimicrobial drug resistance, Congress, in 2008, enacted ADUFA 105 to enhance the reports collected by FDA concerning marketed new animal drug products that contain an antimicrobial active ingredient. ADUFA 105 amended section 512(l) of FD& C Act by adding section 512(l)(3). Under new section 512(l)(3) of the FD&C Act, sponsors of approved antimicrobial new animal drugs must submit to us on an

annual basis a report specifying the amount of each antimicrobial active ingredient in the drug that is sold or distributed for use in food-producing animals. Specifically, sponsors are required to report the amount of each antimicrobial active ingredient as follows: (1) By container size, strength, and dosage form; (2) by quantities distributed domestically and quantities exported; and (3) for each dosage form, a listing of the target animals, indications, and production classes that are specified on the approved label of the product. Monthly data must be reported for the preceding calendar year no later than March 31. Section 512(l)(3) of the FD&C Act also requires us to publish an annual summary report of the antimicrobial drug sales and distribution data it collects from sponsors, and further provides that such data must be reported by antimicrobial class.

In accordance with section 512(l)(3) of the FD&C Act, sponsors of the affected antimicrobial new animal drug products began submitting their sales and distribution data to us on an annual basis, and we have published summaries of such data for each calendar year beginning with 2009. As noted earlier, the purpose of this rulemaking is to amend our animal drug records and reports regulation at part 514 to include administrative practices and procedures for sponsors of antimicrobial new animal drugs sold or distributed for use in food-producing animals who must report under section 512(l)(3) of the FD&C Act, and to include a provision intended to enhance our understanding of antimicrobial animal drug sales intended for use in specific food-producing animal species and the relationship between such data and antimicrobial resistance.

We previously issued an Advance Notice of Proposed Rulemaking (ANPRM) to obtain public input on potential amendments to our animal drug records and reports regulation at part 514, including the provision to require sales and distribution data about specific food-producing

animal species discussed below (77 Federal Register 44177, July 27, 2012). We considered the comments received in response to the ANPRM in preparing the proposed rule that published on May 20, 2015 (80 Federal Register 28863). We prepared a Preliminary Regulatory Impacts Analysis (PRIA) for the proposed rule. The PRIA was placed in the regulatory docket, and later posted on our public internet site.

Although we received many comments on the proposed rule, none of these comments specifically addressed the cost methodology and assumptions, or the cost estimates and conclusions in the PRIA. As such, we have retained the basic cost methodology for this Final Regulatory Impact Analysis (FRIA), while adjusting for cost increases due to general inflation and the minor changes made to the substantive areas of the rule, where applicable.

III. Need for Regulation

Antimicrobial resistance, and the resulting failure of antimicrobial therapies in humans, is a mounting public health problem. This phenomenon is driven by many factors, including the use of antimicrobial drugs in both humans and animals. Due to the use of medically important antimicrobials in food-producing animals, foodborne bacteria may become resistant to antimicrobial drugs used to treat disease in humans. As a consequence, antimicrobial resistant foodborne pathogens may infect humans and thereby reduce the effectiveness of antimicrobial therapies in some people. These antimicrobial resistant foodborne pathogens are an external cost to the producers of food-producing animals and therefore not incorporated into private costs of production.

Although antimicrobial resistance is growing, we do not know how much the use of medically important antimicrobials in food-producing animals contributes to the phenomenon.

Without more information, both the cause and extent of antimicrobial resistance associated with the use of these products may not be fully appreciated. Food animal producers, veterinarians, and animal drug sponsors have no incentives to monitor certain uses of antimicrobial animal drugs and how that use may lead to the growth of antimicrobial resistant bacteria. The transaction costs for any individual food animal producer, veterinarian, or animal drug sponsor to gather or disseminate this information would exceed any private benefits. As part of the effort to address the problem of antimicrobial resistance, we need additional information on antimicrobial animal drug use in food-producing animals, including information on the sales of these animal drug products, as well as the distribution of the sales of these products among the various animal species for which they are intended for use.

Because the antimicrobial sales and distribution data reported to us by drug sponsors under section 512(l)(3) of the FD&C Act are derived from drug product sales, very little can be concluded about antimicrobial sales intended for use in any one particular species for products that are approved for use in more than one species. Having species-specific estimates of product sales and distribution for use in the four major food-producing categories of animal species reported to us by drug sponsors based on our authority under section 512(l)(1) of the FD&C Act (cattle, swine, chickens, turkeys) will support efforts such as the National Antimicrobial Resistance Monitoring System (NARMS), a surveillance program that tracks trends related to antimicrobial resistance in food-producing animals and humans, and will complement data on antimicrobial use collected under the National Animal Health Monitoring System (NAHMS). In addition, the data will also complement the data collection plan that we are developing with USDA and CDC to obtain additional on-farm use and resistance data. The collection of data from multiple sources, including enhanced sales data, are needed to provide a comprehensive

and science-based picture of antimicrobial drug use and resistance in animal agriculture. Such information will further enhance our ongoing activities related to slowing the development of antimicrobial resistance to help ensure that safe and effective antimicrobial new animal drugs will remain available for use in human and animal medicine.

These final regulations will provide specific reporting criteria for sponsors of approved or conditionally approved antimicrobial new animal drug products who must report to us data on the sales and distribution of their products for use in food-producing animals, as required by section 512(l)(3) of the FD&C Act. These final regulations will also provide for reporting sales and distribution of antimicrobial products intended for use in specific species of food-producing animals based on our broader authority under section 512(l)(1) of the FD&C Act. Currently, most antimicrobial new animal drug products that are approved for use in food-producing animals are labeled for use in more than one animal species, in some cases, five or more species.

IV. Benefits of the Final Rule

The benefits of this final rule result from efficiencies introduced by two provisions of the final rule, as well as the value of the estimated species-specific antimicrobial drug sales and distribution data for use in the monitoring of the development of antimicrobial resistant bacteria in animals. These changes are expected to result in a reduction in current compliance costs.

The current practice for compliance with ADUFA 105 includes the sponsors' calculations of the specific amounts of antimicrobial active ingredients associated with monthly product sales and distribution data. We include language in the preamble to the final rule establishing § 514.87 that explains the basis for our decision that sponsors no longer calculate nor provide the antimicrobial active ingredient amounts in their antimicrobial drug sales and distribution data

reports to us. The accuracy of industry reporting of this calculation shows great variability, causing additional verification efforts for our personnel. Therefore, it is more efficient for sponsors to only report product sales and distribution data, and for us to calculate the exact amounts of antimicrobial active ingredients associated with those product sales. We estimate that this will reduce the industry reporting effort by 1 hour per application. We estimate that this change in policy will affect 150 active (i.e., currently marketed) applications for antimicrobial new animal drugs that are sold or distributed for use in food-producing animals, resulting in 150 fewer compliance hours annually. We assume that one-half of the firms use general or operations managers (at small to mid-sized firms), and one-half of the firms use industrial production managers (at larger firms) to make this calculation. The Bureau of Labor Statistics (BLS) list the average labor rate for general and operations managers under the North American Industrial Classification System (NAICS) code 325400 – Pharmaceutical and Medicine Manufacturing, at about $72 per hour for 2014. We adjust this wage for overhead and other benefits by 100 percent, which results in an adjusted wage rate of about $144 per hour. BLS lists the average labor rate for industrial production managers under NAICS code 325400 at about $55 per hour for 2014. We adjust these wages for overhead and other benefits by 100 percent, which results in an average adjusted wage rate to about $110 per hour. The annual benefit of the reduction of 150 hours times an average of $127 per hour equals about $19,100.

The provision that will give sponsors the opportunity to not report distribution data under current § 514.80(b)(4)(i) for their approved applications that include the same products for which antimicrobial drug sales and distribution data need to be reported under § 514.87 will also lead to a cost savings for sponsors. We estimate that 90 percent of the sponsors that currently market approved new animal drugs containing an antimicrobial active ingredient for use in food-

producing animals will request to change the submission date for their annual periodic drug experience report such that the reporting period begins on January 1 and ends on December 31, as provided in § 514.87. Aligning the two reporting periods allows sponsors to avoid reporting the same information in two reports. These 135 approved applications (90 percent of 150) will still have to account for the costs of data collection and preparation, but they will no longer be required to include distribution data in the Drug Experience Report (DER) under § 514.80(b)(4)(i)(B). We estimate that the time saved per application from the removal of the requirement for the distribution data in the DER could be as much as 6 hours per application. Using the same adjusted wage rates and distribution of hours by adjusted wage rates (one-half of the total hours at each rate), the annual benefit of the reduction of 135 applications times an average of 6 hours at $127 per hour is about $103,100. We acknowledge some uncertainty surrounding the average labor savings from this provision of the final rule.

We estimate the total annual benefit of this final rule at $122,300 ($19,100 plus $103,100).

V. Compliance Costs

Because the first year of antimicrobial new animal drug sales and distribution data reported under ADUFA 105 was for calendar year 2009, sponsors of approved applications for antimicrobial new animal drugs sold or distributed for use in food-producing animals have been incurring compliance costs to gather the sales and distribution data, process the data, and prepare the annual reports on the amount of each antimicrobial active ingredient in the drug that is sold or distributed for use in food-producing animals for some time. Those compliance costs are not a

direct result of this rule. However, we will describe them here, for illustrative purposes only, but not include them in the total cost estimates of this analysis.

A. Costs of ADUFA 105

We currently make estimates of the compliance burden for the requirements of ADUFA 105 for use in periodic reports to OMB. For 2014, data was submitted by 20 sponsors of 150 active applications for antimicrobial animal drug products that are sold or distributed for use in food-producing animals, with an average of 7.5 active approvals per sponsor. We estimate that 60 hours are required to collect the necessary data and prepare a paper submission to us for each active application. We estimate that only 50 hours are required for each electronic submission of the same information. We assume paper submissions and electronic submissions each represent one-half of total submissions, resulting in a total of 8,250 labor hours for the industry. We further assume that industry personnel at either the general and operations manager level or at the industrial production manager level will conduct this effort.

The 2014 data also showed 7 sponsors with only inactive approved applications and 17 sponsors with both active and inactive approved applications together have 211 inactive approved applications for antimicrobial animal drug products for use in food-producing animals. We estimate that the sponsors of these 211 inactive applications only require 2 hours per approved application to prepare and submit the report stating that there were no product sales for the year, regardless of whether it is submitted on paper or electronically. This labor effort amounts to 422 hours annually. The sum of all labor hours required for this provision amounts to 8,672 hours.

We again assume that one-half of the firms will use general or operations managers (at small to mid-sized firms), and one-half of the firms will use industrial production managers (at

larger firms) to collect the data and prepare the submission. If the combined 8,672 hours are evenly divided between the two adjusted wage rates, the current annual compliance costs of ADUFA 105 are about $1.10 million. If the data submitted for 2014 is representative of the data submitted for 2009 through 2013, the annual costs that were incurred by industry in those other years would be similar. None of these costs, however, are considered a direct result of this final rule.

B. Administrative Costs of Final Rule

Current sponsors of approved or conditionally approved applications for new animal drugs containing an antimicrobial active ingredient that are sold or distributed for use in food-producing animals will review the final rule and develop a plan to comply with the requirements. We believe that since the final rule mostly codifies current practices, sponsors will not require significant review time. We estimate that the same 27 sponsors (20 sponsors of active and inactive applications and 7 sponsors of only inactive applications) will need to review this rule and develop a compliance plan. We estimate this will require about 24 hours for each of the 20 sponsors with active approvals. A sponsor with only one or more inactive approvals is expected to do much less work since a compliance plan does not need to be developed; thus, we estimate that rule review for each of these sponsors will only take 1 hour. We again estimate that one-half of the sponsors use personnel at either the general and operations manager level and one-half use personnel at the industrial production manager level to perform the review and, to the extent necessary, develop a simple compliance plan.

We use the same adjusted hourly pay for general and operations managers of about $144 per hour for the 24 hours of review for one-half, or 10 sponsors of active approvals. This results in a one-time compliance cost of about $34,700, which equates to an annualized cost of about

$4,900 when discounted at 7 percent over 10 years. Using the same adjusted hourly pay for industrial production managers of about $110 per hour, the 24 hours of review for the other 10 sponsors of active approvals imposes a one-time compliance cost of about $26,500. This equates to an annualized cost of about $3,800 when discounted at 7 percent over 10 years.

For the 1-hour review time for the seven sponsors of inactive approvals, we assign one-half, or 3.5 hours, at the $144 per hour adjusted rate for general and operations managers. The review for the other 3.5 hours is assigned at the adjusted rate for industrial production managers of $110 per hour. The total cost for the review by sponsors of inactive approvals is estimated at about $900, which equates to an annualized cost of about $100 when discounted at 7 percent over 10 years.

We estimate total administrative costs for rule review and compliance plans development to be about $62,000. This equates to $8,800 when discounted at 7 percent over 10 years (and about $7,300 when discounted at 3 percent over 10 years).

C. Conforming Changes to § 514.80

Final § 514.80(b)(4)(i)(B) will allow sponsors submitting annual sales and distribution reports for antimicrobial new animal drug products under § 514.87 the option to not report distribution data under final § 514.80(b)(4)(i)(A) in their annual Drug Experience Report (DER), but only provided certain specific conditions are met. One condition is that sponsors must ensure that the beginning of the reporting period for the annual periodic drug experience reports for antimicrobial new animal drug product applications subject to reporting under § 514.87 is January 1. For applications that currently have a reporting period that begins on a date other than January 1, applicants must request a change in reporting submission date for their annual periodic drug experience report such that the reporting period begins on January 1 and ends on

December 31, as described in § 514.80(b)(4). A second, and related, condition is that sponsors who change their reporting submission date must also, on a one-time basis, submit a special drug experience report, as described in current § 514.80(b)(5)(i), that addresses any gaps in distribution data caused by the change in reporting periods. The final condition with cost implications is that sponsors who meet the criteria under § 514.80(b)(4)(i)(B) and choose not to report under § 514.80 (b)(4)(i)(A) must ensure that full sales and distribution data for each product approved under such applications are alternatively reported under § 514.87.

We estimate that 90 percent of the sponsors that currently market approved new animal drugs containing an antimicrobial active ingredient for use in food-producing animals will make the request to change the submission date for their annual periodic drug experience report such that the reporting period begins on January 1 and ends on December 31. Ninety percent of 150 active applications equates to 135 applications held by approximately 18 sponsors. We estimate that it will take about 2 hours for personnel to meet the first two conditions, making the change of date request for each application and preparing the one-time special drug experience report for each application. This results in 270 hours. At the overhead and other benefits-adjusted wage rate of about $144 per hour for general and operations manager for one-half of the hours, and at $110 per hour for industrial production managers for the other one-half of the hours, the one-time cost will be about $34,400. This equates to an annualized cost of about $4,900 when annualized over 10 years at a 7 percent discount rate (and about $4,000 at a 3 percent discount rate).

D. Costs of § 514.87

§ 514.87(c) will require that antimicrobial sales and distribution data reports contain a species-specific estimate of the percentage of each antimicrobial new animal drug product that is sold or distributed domestically in the reporting year for use in any of the following four major

food-producing animal species, but only for species that appear on the approved label: cattle, swine, chickens, and turkeys. The total of the species-specific percentages reported for each product must account for 100% of its sales and distribution; therefore, a fifth category of "other species/unknown" will also be reported. This category will be used to capture the estimated percentage of each new animal drug product that is sold or distributed for use in animal species other than the four major food-producing species or otherwise unknown to the reporting drug sponsor.

We estimate that an individual will spend about 5 hours complying with this requirement in the first year. Subsequent years are estimated to require about 3 hours to comply. The additional 2 hours in the first year is a one-time cost incurred as individual company personnel discuss and settle upon a method to calculate these species-specific estimates. With the labor split evenly over the 2 wage rates, these 2 hours amount to a one-time cost of about $38,200 for the 150 applications. This equates to $5,400 in annualized costs over 10 years at a 7 percent discount rate (and $4,500 at a 3 percent discount rate). Under the same assumptions, the 3 hours needed to gather the necessary information and calculate the percentage estimate will cost about $57,300 annually. The average total annualized cost for this provision over 10 years equals about $62,700 ($5,400 annualized one-time cost plus the $57,300 annual cost).

E. Total Industry Costs

In table 3, we estimate the total one-time costs for this final rule at $134,600, about one-half of which are unavoidable costs for reviewing the rule and making a compliance plan. On an annualized basis, the cost of the rule is about $76,500 when discounted at 7 percent over 10 years ($73,100 at a 3 percent discount rate).

Table 3.--Industry Compliance Costs[1]

Type of Cost	1-Time Cost	Annual Cost	Annualized Cost
Administrative Review of the Rule	$62,000		$8,800
Request a Change of Date and Submit Special Drug Experience Report	$34,400		$4,900
Report Species-Specific Estimate of Percent of Products Distributed Domestically	$38,200	$57,300	$62,700
Total Industry Costs	$134,600	$57,300	$76,500

[1]Columns may not add to total costs due to rounding.

F. Government Costs

We estimate that the review of annual reports submitted by sponsors of new animal drugs containing antimicrobial active ingredients and the preparation and publication of our annual summary report required under § 514.87(f) will require four additional full-time employees. Based on the FDA Budget Office, the average annual cost of one FTE is about $250,000, including the cost of all overhead support for, and benefits to, that FTE. This equates to an hourly cost per FTE of about $120. We estimate the cost of these four employees at about $1,000,000. We emphasize that the great majority of these costs are already being incurred because sponsors have been required to annually report antimicrobial sales and distribution data as required by ADUFA 105 since March 2010. We do not expect the cost to administer this program to change significantly.

VI. Analysis of Alternatives

An alternative to the final rule that would require a slightly larger effort by the sponsor would include reporting of the methodology used to estimate the species-specific estimate of the percentage of each product distributed domestically. We considered including this provision in both the proposed and final rules. In the end, we decided not to include it because it would not

add to the quality or timeliness of the data submitted, and could be seen as adding an additional burden to industry. We have not estimated this burden but believe it would not have been significant.

VII. Regulatory Flexibility Act

The Regulatory Flexibility Act requires Agencies to prepare a regulatory flexibility analysis if a rule is expected to have a significant economic impact on a substantial number of small entities. The discussion in this section and the previous sections of the economic analysis constitute the final regulatory flexibility analysis of this final rule.

One requirement of the Regulatory Flexibility Act is a succinct statement of any objectives of the rule. As stated in the preamble to the final rule, we are issuing these administrative practices and procedures for animal drug sponsors who must report their sales and distribution data to us as required by section 512(l)(3) of the FD&C Act. This rule also includes an additional reporting provision, based on our broader authority under section 512(l)(1), intended to improve our understanding of antimicrobial animal drug sales intended for use in specific food-producing animal species and the relationship between such data and antimicrobial resistance to help ensure that safe and effective antimicrobial drugs will remain available for use in human and animal medicine.

A. Description of Small Entities

The Regulatory Flexibility Act also requires a description of the small entities that will be affected by the rule, and an estimate of the number of small entities to which the rule will apply. The Small Business Administration (SBA) considers any pharmaceutical manufacturer (NAICS code 325412--Pharmaceutical Preparation Manufacturing, which includes Type A medicated

article sponsors) with fewer than 750 employees to be small. Table 4 presents U.S. Census data from 2012. In 2012, there were 1,165 establishments in NAICS 325412. Approximately 95 percent to 98 percent of the establishments in NAICS code 325412 had fewer than 750 employees and would be considered small business establishments. However, those firms with multiple establishments that in total exceed 750 employees would reduce the percent of firms that are considered small businesses. In any case, we believe that a substantial number of firms in NAICS 325412 could qualify as small business entities.

Table 4 also illustrates the distribution of revenues by type and size of manufacturer establishment. Average annual revenues per firm for the pharmaceutical preparation manufacturers range from less than $1.0 million for small firms with fewer than 10 employees to over $1 billion for large firms with 1,000 or more employees.

Table 4.--Establishments and Revenues for Pharmaceutical Preparation Manufacturers[1]

Employment size	No. of Establishments	Annual Value of Shipments ($ mil)	Average Annual Value of Shipment per Establishment ($ mil)
0-9	487	413.7	0.9
10-99	431	3,537.7	8.2
100-249	105	22,850.3	217.6
250-499	89	38,824.1	436.2
500+	53	70,827.4	1,336.4
Industry total	1,165	136,453.1	117.1

[1] Source: 2012 Economic Census

B. Costs to Small Entities

Table 5 shows the relative burden that establishments of different sizes can expect from the final rule. For pharmaceutical preparation manufacturers, both the one-time costs and annualized costs are less than 1 percent of the value of shipments for those establishments with zero to nine employees. We do not expect establishments or companies of this size to sponsor new animal drug applications. For those establishments with 100 or more employees, which are

the type that are most likely to sponsor new animal drug applications, the one-time and annualized costs are less than 0.01 percent of the value shipments. We do not expect this final rule to cause significant impacts on a substantial number of small entities.

Table 5 - Costs by Establishment Size for Pharmaceutical Preparation Manufacturers

Employment Size	No. of Establishments	One-Time Costs as a Percent of Average Revenues	Annualized Costs as a Percent of Average Revenues
NAICS-325412--Pharmaceutical Preparation Manufacturing			
0-9	487	0.79%	0.45%
10-99	431	0.08%	0.05%
100-249	105	<0.01%	<0.01%
250-499	89	<0.01%	<0.01%
500+	53	<0.01%	<0.01%