

---

# Guidance for Industry

## **Reporting Harmful and Potentially Harmful Constituents in Tobacco Products and Tobacco Smoke Under Section 904(a)(3) of the Federal Food, Drug, and Cosmetic Act**

### ***DRAFT GUIDANCE***

**This guidance document is being distributed for comment purposes only.**

Comments and suggestions regarding this draft document should be submitted within 60 days of publication in the *Federal Register* of the notice announcing the availability of the draft guidance. Submit comments to the Division of Dockets Management (HFA-305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. Alternatively, electronic comments may be submitted to <http://www.regulations.gov>. All comments should be identified with the docket number listed in the notice of availability that publishes in the *Federal Register*.

For questions regarding this draft document, contact the Office of Science in the Center for Tobacco Products at 877-CTP-1373 or by e-mail at [TobaccoIndustryQuestions@fda.hhs.gov](mailto:TobaccoIndustryQuestions@fda.hhs.gov).

**U.S. Department of Health and Human Services  
Food and Drug Administration  
Center for Tobacco Products (CTP)**

**March 2012**

---

# Guidance for Industry

## **Reporting Harmful and Potentially Harmful Constituents in Tobacco Products and Tobacco Smoke Under Section 904(a)(3) of the Federal Food, Drug, and Cosmetic Act**

### ***DRAFT GUIDANCE***

*Additional copies are available from:*

*Food and Drug Administration  
Center for Tobacco Products  
Document Control Center  
Building 71, Room G335  
10903 New Hampshire Avenue  
Silver Spring, MD 20993-0002  
Phone: 240-276-1717  
<http://www.fda.gov/tobaccoguidance>*

**U.S. Department of Health and Human Services  
Food and Drug Administration  
Center for Tobacco Products (CTP)**

**March 2012**

*Contains Nonbinding Recommendations*

*Draft — Not for Implementation*

**TABLE OF CONTENTS**

<b>I.</b>	<b>INTRODUCTION.....</b>	<b>1</b>
<b>II.</b>	<b>BACKGROUND.....</b>	<b>2</b>
<b>III.</b>	<b>HPHCS TO BE REPORTED TO FDA.....</b>	<b>3</b>
<b>IV.</b>	<b>WHO SUBMITS 904(a)(3) REPORTS.....</b>	<b>5</b>
<b>V.</b>	<b>WHEN 904(a)(3) REPORTS ARE SUBMITTED TO FDA.....</b>	<b>5</b>
A.	PRODUCTS MARKETED PRIOR TO JUNE 22, 2012: TOBACCO PRODUCT MANUFACTURERS THAT ARE NOT SMALL TOBACCO PRODUCT MANUFACTURERS.....	6
B.	PRODUCTS MARKETED PRIOR TO JUNE 22, 2012: SMALL TOBACCO PRODUCT MANUFACTURERS.....	6
C.	PRODUCTS FIRST MARKETED ON OR AFTER JUNE 22, 2012.....	6
<b>VI.</b>	<b>WHAT INFORMATION IS TO BE REPORTED TO FDA.....</b>	<b>7</b>
A.	MANUFACTURER OR IMPORTER IDENTIFICATION.....	7
B.	TOBACCO PRODUCT IDENTIFICATION.....	8
C.	HPHC QUANTITIES AND TESTING INFORMATION.....	8
<b>VII.</b>	<b>HOW 904(a)(3) REPORTS SHOULD BE SUBMITTED.....</b>	<b>9</b>

## Guidance for Industry<sup>1</sup>

# Reporting Harmful and Potentially Harmful Constituents in Tobacco Products and Tobacco Smoke Under Section 904(a)(3) of the Federal Food, Drug, and Cosmetic Act

This draft guidance, when finalized, will represent the Food and Drug Administration's (FDA's) current thinking on this topic. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. You can use an alternative approach if the approach satisfies the requirements of the applicable statutes and regulations. If you want to discuss an alternative approach, contact the FDA staff responsible for implementing this guidance. If you cannot identify the appropriate FDA staff, call the appropriate number listed on the title page of this guidance.

## I. INTRODUCTION

The purpose of this guidance is to assist persons reporting to FDA the quantities of harmful and potentially harmful constituents (HPHCs) in tobacco products and tobacco smoke under section 904(a)(3) of the Federal Food, Drug, and Cosmetic Act (FD&C Act) (21 U.S.C. 387d(a)(3)). In particular, at this time, while industry is developing laboratory capacity to comply with section 904(a)(3), FDA does not intend to enforce the statutory requirement to provide quantities of all constituents identified by FDA as HPHCs by June 22, 2012, if manufacturers or importers complete testing and reporting for an abbreviated list of HPHCs as set forth in this guidance. Specifically, this guidance document explains:

- The statutory requirement for testing and reporting quantities of HPHCs,
- What HPHCs will be the focus of FDA enforcement at this time,
- Who tests and reports quantities of HPHCs to FDA,
- When reports are submitted to FDA,
- What information is reported to FDA, and
- How reports should be submitted to FDA.

FDA's guidance documents, including this guidance, do not establish legally enforceable responsibilities. Instead, guidance documents describe the Agency's current thinking on a topic and should be viewed only as recommendations, unless specific regulatory or statutory requirements are cited. The use of the word *should* in Agency guidance documents means that something is suggested or recommended, but not required.

<sup>1</sup> This guidance has been prepared by the Office of Science in the Center for Tobacco Products (CTP) at FDA.

## *Contains Nonbinding Recommendations*

*Draft — Not for Implementation*

43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82

### **II. BACKGROUND**

On June 22, 2009, the President signed the Family Smoking Prevention and Tobacco Control Act (Tobacco Control Act) (Public Law 111-31) into law. The law grants FDA important new authority to regulate the manufacture, marketing, and distribution of tobacco products to protect the public health and to reduce tobacco use by minors. It also imposes certain obligations on industry, including reporting obligations. Among its many provisions, the Tobacco Control Act added section 904(a)(3) to the FD&C Act. This section requires each tobacco product manufacturer or importer, or an agent, to begin reporting to FDA on June 22, 2012, “all constituents, including smoke constituents, identified by [FDA] as harmful or potentially harmful to health in each tobacco product, and as applicable in the smoke of each tobacco product.” Reports must be by brand<sup>2</sup> and by quantity in each brand and subbrand. For example, for a manufacturer using the brand name “Acme,” separate reports need to be submitted for the subbrands “Acme 100s” and “Acme Kings.” For tobacco products that were not on the market on the date that the Tobacco Control Act was enacted (June 22, 2009), section 904(c)(1) of the FD&C Act requires that these reports be submitted to FDA at least 90 days before the product is delivered for introduction into interstate commerce.

We have taken several steps to identify HPHCs to be reported under section 904(a)(3) of the FD&C Act. We issued a final guidance discussing our current thinking on the meaning of “harmful and potentially harmful constituent” in the context of implementing the HPHC list requirement.<sup>3</sup> In addition, on August 12, 2011, we issued a public notice in the *Federal Register* describing the criteria we had tentatively concluded we would use to assist the Agency in identifying HPHCs, listing 96 HPHCs we identified using those criteria, and asking the public and interested parties to submit relevant scientific and other information by October 11, 2011 (76 FR 50226). After reviewing comments received in response to this notice, and as directed by section 904(e) of the FD&C Act, we established the list of HPHCs and published it in the *Federal Register*.<sup>4</sup>

As described in this guidance, we do not intend, at this time, to enforce certain aspects of the requirements in section 904(a)(3) of the FD&C Act. However, we intend to move toward full implementation and enforcement of the statutory requirement to report quantities of all HPHCs on FDA’s established list, as appropriate. We anticipate that this guidance will be revised or withdrawn as we do so. We intend to use the information submitted pursuant to sections 904(a)(3) and 904(c)(1) of the FD&C Act to meet the requirements of section 904(e) of the FD&C Act regarding a list of HPHCs in each tobacco product by brand and by quantity in each brand and subbrand. Also, the information will be used to comply with section 904(d)(1) of the FD&C Act, which requires FDA to publish a list of HPHCs, by brand and by quantity in each brand and subbrand, in a format that is understandable and not misleading to lay persons.

---

<sup>2</sup> The term *brand* is defined in section 900(2) of the FD&C Act (21 U.S.C. 387(2)) as “a variety of tobacco product distinguished by the tobacco used, tar content, nicotine content, flavoring used, size, filtration, packaging, logo, registered trademark, brand name, identifiable pattern of colors, or any combination of such attributes.”

<sup>3</sup> Available on the Internet at:

<http://www.fda.gov/TobaccoProducts/GuidanceComplianceRegulatoryInformation/ucm241339.htm>.

<sup>4</sup> The established list is available on the Internet (under the Regulatory Information heading) at <http://www.fda.gov/TobaccoProducts/GuidanceComplianceRegulatoryInformation/default.htm>.

## ***Contains Nonbinding Recommendations***

*Draft — Not for Implementation*

83  
84 In addition, section 915(a) of the FD&C Act (21 U.S.C. 387o(a)) requires FDA to issue  
85 regulations requiring testing and reporting of tobacco product constituents, ingredients, and  
86 additives, including smoke constituents, by brand and subbrand, that FDA determines should be  
87 tested to protect the public health. Section 915(a) of the FD&C Act calls for FDA to issue these  
88 regulations no later than April 1, 2013. Once regulations promulgated under section 915 of the  
89 FD&C Act become effective, section 904(a)(3) of the FD&C Act requires that a manufacturer,  
90 importer, or agent comply with these regulations in reporting HPHCs.

### 91 92 **III. HPHCs TO BE REPORTED TO FDA**

93  
94 We recognize that industry will have a short time between the establishment of the HPHC list  
95 and June 22, 2012 when the reporting obligations under section 904(a)(3) are effective. We also  
96 recognize that manufacturers or importers (particularly small tobacco product manufacturers<sup>5</sup>)  
97 may not currently have the in-house laboratory capabilities to test for quantities of HPHCs.  
98 Consequently, manufacturers or importers may rely on contract laboratories for HPHC testing.  
99 Because this will be the first time that tobacco product manufacturers or importers are required  
100 to report quantities of HPHCs, contract laboratories may not be prepared for the large volume of  
101 requests for the testing of quantities of the HPHCs for all brands and subbrands of tobacco  
102 products marketed prior to June 22, 2012. In addition, some contract laboratories may not yet be  
103 able to test for each of the constituents on FDA's established list of HPHCs. However, we think  
104 that within the timeframes described in section V of this guidance, there will be adequate time  
105 for manufacturers or importers, including those relying on contract laboratories, to test and report  
106 on an abbreviated list of HPHCs. Therefore, we do not intend to enforce the requirements to test  
107 and report quantities of all HPHCs on FDA's established list if manufacturers or importers  
108 report, no later than the dates described in section V, quantitative information for the abbreviated  
109 list of HPHCs (Table 1).

---

<sup>5</sup> The definition of the term *small tobacco product manufacturer* is discussed in section V.B.

## Contains Nonbinding Recommendations

Draft — Not for Implementation

110

111 **Table 1. Abbreviated List of Harmful and Potentially Harmful Constituents**

HPHCs in Cigarette Smoke	HPHCs in Smokeless Tobacco	HPHCs in Roll-your-own Tobacco and Cigarette Filler <sup>6</sup>
Acetaldehyde	Acetaldehyde	Ammonia
Acrolein	Arsenic	Arsenic
Acrylonitrile	Benzo[a]pyrene	Cadmium
4-Aminobiphenyl	Cadmium	Nicotine (total)
1-Aminonaphthalene	Crotonaldehyde	NNK <sup>*</sup>
2-Aminonaphthalene	Formaldehyde	NNN <sup>**</sup>
Ammonia	Nicotine (total and free)	
Benzene	NNK <sup>*</sup>	
Benzo[a]pyrene	NNN <sup>**</sup>	
1,3-Butadiene		
Carbon monoxide		
Crotonaldehyde		
Formaldehyde		
Isoprene		
Nicotine (total)		
NNK <sup>*</sup>		
NNN <sup>**</sup>		
Toluene		

<sup>\*</sup> 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone

<sup>\*\*</sup> N-nitrosoornicotine

112

113 We identified the HPHCs on this list after considering several factors. We selected constituents  
 114 for which testing and analytic methods are well established and widely available. We also  
 115 selected constituents that represent several different chemical classes (e.g., polyaromatic  
 116 hydrocarbons, tobacco-specific nitrosamines, carbonyl compounds, aromatic amines, metals, and  
 117 volatile organic compounds). These constitute a representative sample of the HPHCs on FDA’s  
 118 established HPHC list, providing a basis for beginning to study regulated tobacco products  
 119 pending submission of information for all HPHCs on the established list. Finally, we selected a  
 120 small number of constituents so that industry can begin testing and reporting, and FDA can begin  
 121 analyzing HPHC information, in a relatively short time. We have identified HPHCs by product  
 122 type because different product types may contain different HPHCs. For example, carbon  
 123 monoxide is produced during combustion so it is included on the abbreviated list of HPHCs for  
 124 cigarette smoke, but not included on the list for smokeless tobacco products, roll-your-own  
 125 tobacco, or cigarette filler.

<sup>6</sup> *Roll-your-own tobacco* is defined in section 900(15) of the FD&C Act to mean “any tobacco product which, because of its appearance, type, packaging, or labeling, is suitable for use and likely to be offered to, or purchased by, consumers as tobacco for making cigarettes.” The term *cigarette filler* is not defined in the FD&C Act. For purposes of this guidance, we intend *cigarette filler* to mean the cut, ground, powdered, or leaf tobacco that is a component of a cigarette.

## ***Contains Nonbinding Recommendations***

*Draft — Not for Implementation*

126  
127  
128  
129  
130  
131  
132  
133  
134  
135  
136  
137  
138  
139  
140  
141  
142  
143  
144  
145  
146  
147  
148  
149  
150  
151  
152  
153  
154  
155  
156  
157  
158  
159  
160  
161  
162  
163  
164  
165  
166  
167

### **IV. WHO SUBMITS 904(a)(3) REPORTS**

Under section 904(a)(3) of the FD&C Act, “each tobacco product manufacturer or importer, or agents thereof” must report quantities of HPHCs for tobacco products by brand and subbrand. We interpret this to mean that domestic manufacturers, or their agents, are to submit the required HPHC information for products they manufacture. For imported tobacco products, the required HPHC information is to be submitted by either the foreign manufacturer or the importer, or an agent, of the product. The definition of *tobacco product* in section 201(rr)(1) of the FD&C Act includes “any component, part, or accessory of a tobacco product (except for raw materials other than tobacco used in manufacturing a component, part, or accessory of a tobacco product)” (21 U.S.C. 321(rr)(1)). We therefore interpret section 904(a)(3) of the FD&C Act to cover any regulated tobacco product, whether for sale to consumers or for further manufacturing.<sup>7</sup> At this time, however, we intend to enforce the HPHC reporting requirements for finished tobacco products for consumer use in the following categories:

- Cigarettes (report HPHC quantities in smoke and filler)
- Smokeless tobacco (e.g., snus, snuff, plug, chew, loose leaf)
- Roll-your-own tobacco

At this time, we do not intend to enforce the requirement to report HPHCs under section 904(a)(3) against manufacturers and importers of other products (e.g., manufacturers of components sold to manufacturers or to consumers for incorporation into finished tobacco products for consumer use). We are not aware of established test methods to measure HPHCs in separated or unincorporated components of tobacco products other than cigarette filler and roll-your-own tobacco, and we also believe that testing finished products that are ready for consumer use without further assembly will provide information about the potential exposure of consumers and others, taking into account the effect of components and product design. If we find that additional information is needed to protect the public health, we may reconsider these enforcement policies.

This guidance does not apply to the testing and reporting of quantities of HPHCs for tobacco products that are not currently subject to Chapter IX of the FD&C Act (see section 901(b) of the FD&C Act (21 U.S.C. 387a(b))).

### **V. WHEN 904(a)(3) REPORTS ARE SUBMITTED TO FDA**

Section 904(a)(3) of the FD&C Act requires the reporting of quantities of all HPHCs on FDA’s established list, by brand and subbrand, beginning no later than June 22, 2012. As described in section III of this guidance, at this time we do not intend to enforce this requirement against manufacturers or importers of finished tobacco products provided that quantities of the HPHCs

---

<sup>7</sup> See the guidance for industry, *Listing of Ingredients in Tobacco Products*, available on the Internet at <http://www.fda.gov/TobaccoProducts/GuidanceComplianceRegulatoryInformation/ucm191982.htm> (explaining that the definition of tobacco product in the FD&C Act includes components, parts, and accessories of tobacco products, whether they are sold for further manufacturing or for consumer use).



## ***Contains Nonbinding Recommendations***

*Draft — Not for Implementation*

168 identified in Table 1 are reported for all of their products, by brand and subbrand, no later than  
169 the dates identified in the following sections.

170

### **A. Products Marketed Prior to June 22, 2012: Tobacco Product Manufacturers That Are Not Small Tobacco Product Manufacturers**

173

174 At this time, for a manufacturer or importer (or agents thereof), other than a small tobacco  
175 product manufacturer, we do not intend to enforce the requirement to test and report quantities of  
176 all HPHCs on FDA’s established list if manufacturers or importers report quantities of the  
177 HPHCs identified in Table 1 for all of their products, by brand and subbrand, no later than  
178 September 22, 2012.

179

### **B. Products Marketed Prior to June 22, 2012: Small Tobacco Product Manufacturers**

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

We recognize that small tobacco product manufacturers are unlikely to have their own laboratory facilities for the testing of HPHCs and are likely to be particularly reliant on contract laboratories that may have limited capacity at this time. Accordingly, at this time we do not intend to enforce the requirement for small tobacco product manufacturers to test and report quantities of all HPHCs on FDA’s established list, provided that such a manufacturer report quantities of the HPHCs identified in Table 1, for all its products, by brand and subbrand, no later than December 22, 2012.<sup>8</sup> This additional 3months from the date that other manufacturers will report quantities of HPHCs should allow contract laboratories sufficient time to complete testing for HPHCs identified in Table 1 for both large and small tobacco product manufacturers and importers within the extended timeframes set forth in this guidance.

Section 900(16) of the FD&C Act defines a *small tobacco product manufacturer* as “a tobacco product manufacturer that employs fewer than 350 employees. For purposes of determining the number of employees of a manufacturer under the preceding sentence, the employees of a manufacturer are deemed to include the employees of each entity that controls, is controlled by, or is under common control with such manufacturer.”<sup>9</sup> A small tobacco product manufacturer submitting 904(a)(3) information should certify on the eSubmitter or paper form (described in section VII) that it has fewer than 350 employees at the time of submission and should have documentation available for submission to FDA on request or for inspection to demonstrate that it meets the statutory definition of a small tobacco product manufacturer.

### **C. Products First Marketed On or After June 22, 2012**

---

<sup>8</sup> Section 915 of the FD&C Act provides that regulations issued under its authority are to have separate compliance dates for small tobacco product manufacturers, providing additional time for initial compliance. Section 904(a)(3) of the FD&C Act does not contain similar provisions. In addition, section 915(f) of the FD&C Act explicitly states that these small tobacco product manufacturer provisions must not be construed to authorize the extension of any deadline or otherwise affect any timeframe under any other provision of the FD&C Act. Therefore, an extension in time to comply is not required by the FD&C Act.

<sup>9</sup> The definition of a *tobacco product manufacturer* in the FD&C Act includes any person “who imports a finished tobacco product for sale or distribution in the United States” (section 900(20) of the FD&C Act). Therefore, the 350 employee threshold applies to importers.

## ***Contains Nonbinding Recommendations***

*Draft — Not for Implementation*

206 For a tobacco product that was not on the market on or after June 22, 2009, section 904(c)(1) of  
207 the FD&C Act requires all tobacco product manufacturers, regardless of their size, to submit  
208 HPHC quantities and other information at least 90 days prior to marketing the product. We do  
209 not intend, at this time, to enforce this requirement in section 904(c)(1) to test and report  
210 quantities of all HPHCs on FDA’s established list for products not previously on the market, if a  
211 manufacturer or importer reports quantities for the HPHCs identified in Table 1 of this guidance  
212 at least 90 days prior to marketing the product in the United States.  
213

214 It is important to remember that the section 904(c)(1) testing and reporting requirement is  
215 separate from the requirements that must be satisfied before you may market a new tobacco  
216 product (sections 905 and 910 of the FD&C Act (21 U.S.C. 387e and 387j)), or modified risk  
217 tobacco product (section 911 of the FD&C Act (21 U.S.C. 387k)). Depending on the nature of a  
218 new tobacco product or modified risk tobacco product, testing and reporting HPHCs on the list in  
219 Table 1 may not be adequate to meet the statutory standards for marketing authorization;  
220 quantities for additional HPHCs may be necessary. This guidance does not represent any  
221 intention to exercise enforcement discretion with respect to the statutory requirements for the  
222 marketing authorization of new tobacco products or modified risk tobacco products.  
223

224 If the only change to your product after June 22, 2012, is a change to the product label or  
225 labeling that will not alter the quantities of HPHCs found in the tobacco product or its smoke,  
226 you do not need to conduct additional testing to comply with section 904(c)(1) of the FD&C Act.  
227 However, if changes to the product label or labeling include a product name change, then you  
228 must report the name change to FDA so that we may associate the quantities of HPHCs with the  
229 marketed product bearing that brand or subbrand name.  
230

231

## **VI. WHAT INFORMATION IS TO BE REPORTED TO FDA**

232

### **A. Manufacturer or Importer Identification**

233

234 The name and address of each tobacco product manufacturer or importer, and the name and  
235 address of any agent reporting HPHCs on their behalf, are to be submitted along with HPHC  
236 information. FDA requests that you also provide information to assist us in communicating with  
237 you:  
238  
239

240

- 241 • Telephone and FAX numbers of the manufacturer or importer;
- 242 • FDA Establishment Identifier (FEI) number, if known;
- 243 • A Data Universal Numbering System (D-U-N-S) number for your headquarters, if you  
244 have one;
- 245 • Contact information for your point of contact including
  - 246 ○ Title, name, and mailing address;
  - 247 ○ E-mail address;
  - 248 ○ Telephone and FAX numbers.

249

250 The business entity identifier recognized by the FDA Data Council is the D-U-N-S number.  
251 Providing the site-specific D-U-N-S number for your headquarters will help prevent inaccuracies

## ***Contains Nonbinding Recommendations***

*Draft — Not for Implementation*

252 in FDA’s database. Dun & Bradstreet assigns and maintains a database of the D-U-N-S numbers,  
253 which serve as unique identifiers of business entities. Upon application, each business entity is  
254 assigned a distinct site-specific 9-digit D-U-N-S number. If the D-U-N-S number for a location  
255 has not been assigned, a business may obtain one for no cost directly from Dun & Bradstreet  
256 (<http://www.dnb.com>).

### **B. Tobacco Product Identification**

259 Under section 904(a)(3), tobacco product manufacturers or importers are required to submit a  
260 listing of HPHCs for “each tobacco product by brand and by quantity in each brand and  
261 subbrand.” Each product for which a listing of HPHCs is submitted is to be clearly and uniquely  
262 identified by its brand and subbrand, which includes identifying the type of tobacco product (i.e.,  
263 cigarette, smokeless (e.g., snus), or roll-your-own tobacco), and any brand and subbrand names.  
264 Also, include the package size or sizes for each product brand and subbrand. If the package size  
265 will not affect quantities of HPHCs, you do not have to test each package size. FDA also  
266 recommends that a unique product identification number, such as a Universal Product Code, be  
267 included for each product to help the Agency track and file your submission, and communicate  
268 with you about your submission. In addition, we request that you provide the name, mailing  
269 address, telephone number, and FAX number for the testing laboratory or laboratories.

### **C. HPHC Quantities and Testing Information**

271 Section 904(a)(3) of the FD&C Act requires the reporting of quantities of HPHCs in each  
272 tobacco product and as applicable in the smoke of each tobacco product. This information is  
273 intended to provide the Agency with information (1) to assist with implementation of the FD&C  
274 Act (e.g., developing tobacco product standards and making substantial equivalence  
275 determinations) and (2) to assist with the publication of a list of HPHCs by brand and subbrand  
276 that is useful for comparing HPHC levels in tobacco products. We therefore understand the  
277 statute to require that quantities must be reported in a manner that provides a basis for  
278 understanding levels of HPHCs in individual tobacco products or their smoke per unit of use, and  
279 for comparing relative quantities of HPHCs associated with different products or their smoke.  
280 Consequently, FDA interprets the term *quantity* to mean a unit of mass per unit of use (e.g., per  
281 cigarette or per pouch) or a unit of mass per mass of tobacco. For portioned tobacco products,  
282 you should report HPHC quantities per unit of use, and include a measurement of the mean mass  
283 with standard deviation of the mean. For non-portioned tobacco products, (e.g., a container of  
284 loose snuff or of roll-your-own tobacco), you should report HPHC quantities per gram of the  
285 product with standard deviation of the mean. For cigarette smoke, you should report HPHC  
286 quantities per cigarette. HPHC quantities and tobacco mass should be reported in terms of the  
287 International System of Units (e.g., grams, micrograms, nanograms, picograms, or milligrams),  
288 which provides a consistent, reliable system of measurement, and you should use at least three  
289 significant figures.<sup>10</sup>

---

<sup>10</sup> When reporting a quantity, you should round to the last appropriate significant figure. For example, if an HPHC quantity is determined to be 54.321 nanograms (ng)/cigarette and the measurement should be expressed as three significant figures, then the quantity should be rounded and reported as 54.3 ng/cigarette. It would not be appropriate to report the quantity as 50.0 ng/cigarette or 54.0 ng/cigarette.

## ***Contains Nonbinding Recommendations***

*Draft — Not for Implementation*

294 Section 904(a)(3) is also intended to provide information that is representative of your product as  
295 marketed. Use a testing protocol to measure HPHCs in tobacco products or tobacco smoke that  
296 involves appropriate sampling techniques to select samples for testing, and provides reproducible  
297 results based on multiple measurements. In reporting quantities derived from such tests, we  
298 believe it is necessary to include a statement of average values and variability among these  
299 multiple measurements. Therefore, you are to report the mean mass and a measure of the  
300 variability among multiple measurements. We strongly recommend that you provide the standard  
301 deviation of the mean to report variability and that you report the number of replicate  
302 measurements made in determining the mean mass and standard deviation. For portioned  
303 products, you also are to include a statement of the mean mass of tobacco in each product and a  
304 measure of the variability among multiple measurements. We strongly recommend using  
305 standard deviation of the mean to describe the variability among measurements.

306  
307 With respect to the requirement in section 904(a)(3) that manufacturers and importers report  
308 quantities of HPHCs “in the smoke of each tobacco product,” we note that different smoking  
309 regimens (e.g., intense or non-intense)<sup>11</sup> are designed to collect different amounts of smoke from  
310 a given tobacco product for analysis and would be expected to provide a range of quantities of  
311 HPHC levels for the smoke of a given tobacco product. Therefore, we believe that information  
312 about the smoking regimen that was used to determine reported HPHC values is necessary for  
313 the interpretation and comparison of HPHC quantities reported, and you are to include this  
314 information in your report. FDA recommends that you also provide information on the smoking  
315 machine used to collect mainstream smoke (i.e., linear or rotary).

316  
317 We recommend that the quantity of each HPHC in cigarette smoke be determined by both the  
318 non-intense and intense smoking regimens. The two smoking regimens are expected to provide  
319 the Agency with information about different deliveries of HPHCs possible for each tobacco  
320 product. FDA recommends seven replicates for the determination of quantities for all HPHCs,  
321 except nicotine and carbon monoxide in cigarette smoke. For nicotine and carbon monoxide in  
322 cigarette smoke, we recommend 20 replicates.

323  
324 FDA also recommends that the following information be submitted for each HPHC, which will  
325 aid FDA in evaluating the data:

- 326  
327
- Number of replicate measurements;
  - 328 • Date (or date range) of testing;
  - 329 • Date (or date range) when the tested product was manufactured; and
  - 330 • Analytical methods used to extract, separate, and detect the HPHCs.
- 331

332 For smokeless tobacco products, FDA recommends that you use the CDC method to calculate  
333 free nicotine (74 FR 712, January 7, 2009).

### **VII. HOW 904(a)(3) REPORTS SHOULD BE SUBMITTED**

334  
335  
336  
337

---

<sup>11</sup> By intense smoking regimen we mean Canadian Intense, Health Canada Test Method T-401, and by non-intense smoking regimen we mean ISO 3308:2008 and ISO 5387:2000.

## ***Contains Nonbinding Recommendations***

*Draft — Not for Implementation*

338 The FDA eSubmitter tool is an electronic application designed to streamline the data entry and  
339 submission process for reporting HPHCs. Users of the eSubmitter tool first download and install  
340 the computer application and then enter all data. To facilitate data entry in relevant sections,  
341 users can populate an Excel file and import data into eSubmitter. The tool alerts the user if there  
342 is missing information. The eSubmitter tool is available at  
343 <http://www.fda.gov/ForIndustry/FDAeSubmitter>.

344 Users of the eSubmitter tool can use the FDA Electronic Submissions Gateway (ESG) to  
345 securely submit their report to CTP and receive an automatic acknowledgement of FDA receipt.  
346 The FDA ESG is used across FDA as the portal for receipt of electronic regulatory submissions.  
347 The FDA ESG system requires users to apply for a free account before submitting data, a process  
348 which can take one to three weeks. FDA therefore urges the user to apply for ESG accounts well  
349 in advance of the deadline for data submission. Once approved, the user can send all submissions  
350 to CTP using the eSubmitter tool and FDA ESG. Instructions on obtaining an ESG account are  
351 available at <http://www.fda.gov/ForIndustry/ElectronicSubmissionsGateway/ucm188949.htm>.

352  
353 Although electronic submission is not required, FDA strongly encourages electronic submission  
354 for efficient and timely data submission and management. If an electronic submission is not  
355 possible or practical, an alternative tool for paper submissions is available at  
356 [www.fda.gov/tobaccoinfoindustry](http://www.fda.gov/tobaccoinfoindustry). If the ESG is not used, submissions can be mailed to:

357  
358 Food and Drug Administration  
359 Center for Tobacco Products  
360 Document Control Center  
361 Building 71, Room G335  
362 10903 New Hampshire Avenue  
363 Silver Spring, MD 20993-0002  
364  
365  
366