Technical Project Lead (TPL) Review : SE0006177 and SE0006178

SE0006177: Eclipse	
Package Type	Box
Package Quantity	20 cigarettes
Length	83 mm
Diameter	7.8 mm
Ventilation	24%
Characterizing Flavor	None
Source of Energy	Carbon heat source
SE0006178: Eclipse Menthol	
Package Type	Box
Package Quantity	20 cigarettes
Length	83 mm
Diameter	7.8 mm
Ventilation	24%
Characterizing Flavor	Menthol
Source of Energy	Carbon heat source
Common Attributes of SE Reports	
Applicant	R.J. Reynolds Tobacco Company
Report Type	Provisional
Product Category	Cigarette
Product Sub-Category	Non-Combusted Filtered
Recommendation	
Issue Substantially Equivalent (SE) orders.	

Technical Project Lead (TPL):

Matthew J. Walters -S
2018.05.02 11:54:41 -04'00'

Matthew J. Walters, Ph.D., MPH
CDR, US Public Health Service
Deputy Director
Division of Product Science

Signatory Decision:

☒ Concur with TPL recommendation and basis of recommendation

☐ Concur with TPL recommendation with additional comments (see separate memo)

☐ Do not concur with TPL recommendation (see separate memo)

Digitally signed by Matthew R. Holman -S
Date: 2018.05.02 12:41:19 -04'00'

Matthew R. Holman, Ph.D.
Director
Office of Science

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1. BACKGROUND

1.1. PREDICATE TOBACCO PRODUCTS

The applicant submitted the following predicate tobacco products:

SE0006177: Eclipse	
Product Name	Eclipse
Package Type	Box
Package Quantity	20 cigarettes
Length	83 mm
Diameter	7.79 mm
Ventilation	24%
Characterizing Flavor	None
Source of Energy	Carbon heat source
SE0006178: Eclipse Menthol	
Product Name	Eclipse Menthol
Package Type	Box
Package Quantity	20 cigarettes
Length	83 mm
Diameter	7.79 mm
Ventilation	24%
Characterizing Flavor	Menthol
Source of Energy	Carbon heat source

The predicate tobacco products are non-combusted, filtered cigarettes manufactured by the applicant.

1.2. REGULATORY ACTIVITY RELATED TO THIS REVIEW

The applicant submitted these two SE Reports on March 22, 2011. The applicant submitted a request for a 90-day extension (SE0007894) on March 21, 2013 in anticipation of FDA issuing Advice/Information Request letters (A/I letters).[1] FDA issued A/I letters on March 25, 2013. FDA issued an Extension Response letter on April 17, 2013, acknowledging the applicant's request for an extension to respond to the March 25, 2013 A/I letter. On April 11, 2013, the applicant submitted an amendment (SE0008212) to address the timeline for amending these provisional SE Reports. Because FDA did not receive adequate characterization of the products in these SE Reports in March 22, 2011, FDA sent the applicant a Public Health Impact (PHI) Advice/Information request letter

[1] On March 14, 2013, FDA issued A/I letters for (b)(4) SE Reports submitted by RAIS on March 22, 2011. On March 19, 2013, FDA conducted a telecon to confirm that RAIS would receive the additional (b) identical A/I letters; SE0006177 and SE0006178 were included among the (b) identical A/I letters.

on May 10, 2013. The applicant provided additional identifying information for these products in their September 6, 2013, amendment (SE0009725) and FDA assigned the SE reports to a PHI Tier. On May 9, 2014, FDA notified the applicant that it intended to begin scientific review on June 23, 2014. In response, the applicant submitted an amendment (SE0010541 and SE0010544 for SE0006177 and SE0006178, respectively) on June 20, 2014. Following the first round of scientific review, FDA sent the applicant an A/I letter on April 26, 2016. The applicant responded to the A/I letter with amendment SE0013461 (June 24, 2016). FDA conducted another cycle of scientific review and sent the applicant a Preliminary Finding letter (Pfind letter) on January 30, 2017. The applicant responded on February 6, 2017, with an amendment (SE0013893) requesting an approximate 2-month extension to respond to the Pfind letter. FDA granted this request on February 24, 2017. The applicant submitted additional data and information on April 28, 2017 (SE0014070).

Product Name	SE Report	Amendments
Eclipse	SE0006177	SE0007894 SE0008212 SE0009725 SE0010541 SE0013461 SE0013893 SE0014070
Eclipse Menthol	SE0006178	SE0007894 SE0008212 SE0009726 SE0010544 SE0013461 SE0013893 SE0014070

1.3. SCOPE OF REVIEW

This review captures all regulatory, compliance, and scientific reviews completed for these SE Reports.

2. REGULATORY REVIEW

Regulatory reviews were completed by Marcella White on March 25, 2013 and by Ryan Nguy on July 12, 2017.

The reviews conclude that the SE Reports are administratively complete.

3. COMPLIANCE REVIEW

The Office of Compliance and Enforcement (OCE) completed reviews to determine whether the applicant established that the predicate tobacco products are grandfathered products (i.e., were commercially marketed in the United States other than exclusively in test markets as of February 15, 2007). The OCE reviews dated May 28, 2014, conclude that the evidence submitted by the applicant is adequate to demonstrate that the predicate tobacco products are grandfathered and, therefore, are eligible predicate tobacco products.

4. SCIENTIFIC REVIEW

Scientific reviews were completed by the Office of Science (OS) for the following disciplines:

4.1. CHEMISTRY

Chemistry reviews were completed by Katherine Lovejoy on August 19, 2014, Jeffrey Ammann on September 1, 2016, and by Changyu Chae on June 20, 2017.

The final chemistry review concludes that the new tobacco products have different characteristics related to product chemistry compared to the corresponding predicate tobacco products but the differences do not cause the new tobacco products to raise different questions of public health. The review identified the following differences:

- Decreases or minimal increases in HPHC yields
- Addition of the humectant - (b) (4) [redacted]
- Minimal ingredient changes in the cigarette paper and tipping paper including changes in the quantities of the adhesive, (b) (4) [redacted], and (b) (4) [redacted]

As a result of the different suppliers for the cigarette paper and tipping paper, the new products have minimal ingredient changes in their cigarette and tipping papers relative to the predicate tobacco products (*e.g.*, changes in the quantities of adhesive, (b) (4) [redacted], and (b) (4) [redacted] with many of the ingredients in the cigarette and tipping papers of the predicate tobacco product not being employed in the new tobacco products. Furthermore, the applicant was unable to provide the single ingredient breakdown of the complex ingredients that were not made to their specifications, however these complex ingredients were from materials such as the tipping paper and foil which were replaced with functionally similar material in the new tobacco products. These differences in these ingredients do not cause the new products to raise different questions of public health as these differences are minimal. In addition, the new products contain the humectant, (b) (4) [redacted]. (b) (4) [redacted] is chemically the same as (b) (4) [redacted].

Although [redacted] can form [redacted] when pyrolyzed, there were no significant differences in [redacted] yields between the new and predicate tobacco products. Accordingly, the addition of [redacted] does not cause the new product to raise different questions of public health. Finally, the HPHC yields in the new tobacco products, relative to the corresponding predicate tobacco products, either decreased or increased within the expected variability of the analytical methods. Therefore, the differences in characteristics between the new and corresponding predicate tobacco products do not cause the new tobacco products to raise different questions of public health from a chemistry perspective.

4.2. ENGINEERING

Engineering reviews were completed by Komal Ahuja on August 19, 2014 and by James Cheng on August 22, 2016.

The final engineering review concludes that the new tobacco products have different characteristics related to product engineering compared to the corresponding predicate tobacco products but the differences do not cause the new tobacco products to raise different questions of public health. The review identified the following differences:

- Increase of 14% in cigarette paper base paper porosity

The new products had an increase of 14% in the cigarette paper base paper porosity and such an increase may increase the exposure of HPHCs to the user. However, the HPHC yields in the new tobacco products, relative to the corresponding predicate tobacco products, either decreased or increased within the expected variability of the analytical methods and therefore, the change in the cigarette paper base paper porosity does not cause the new products to raise different questions of public health. Therefore, the differences in characteristics between the new and corresponding predicate tobacco products do not cause the new tobacco products to raise different questions of public health from an engineering perspective.

4.3. TOXICOLOGY

Toxicology reviews were completed by Brian Erkkila on December 21, 2015, and by Anna Depina on December 23, 2016 and June 28, 2017.

The final toxicology review concludes that the new tobacco products have different characteristics related to product toxicology compared to the corresponding predicate tobacco products but the differences do not cause the new tobacco products to raise different questions of public health. The review identified the following differences:

- Minimal ingredient changes in the cigarette paper and tipping paper such as the addition or increase of (b) (4)
- Increases in the (b) (4) and (b) (4) derivatives in the heated component of the new tobacco products

The new tobacco products have a different supplier for the cigarette paper and tipping paper compared to the predicate tobacco products resulting in minimal changes in ingredients (e.g. (b) (4)) in their cigarette and tipping papers. There are also increases in (b) (4) and (b) (4) derivatives in the heated component of the new tobacco product. The differences in these ingredients between the new and predicate products do not cause the new products to raise different questions of public health as these differences are minimal. Additionally, given the likelihood that the new product will not undergo pyrolysis (as the new products will not exceed more than (b) (4) and, accordingly, will not result in increased HPHC exposure, the differences in ingredients do not cause the new tobacco products to raise different questions of public health. Indeed, the HPHC yields in the new tobacco products, relative to the corresponding predicate tobacco products, either decreased or increased within the expected variability of the analytical methods. Therefore, the differences in characteristics between the new and corresponding predicate tobacco products do not cause the new tobacco products to raise different questions of public health from a toxicology perspective.

5. ENVIRONMENTAL DECISION

Under 21 CFR 25.35(a), issuance of SE orders under section 910(a) of the FD&C Act for these provisional SE Reports (SE0006177 and SE0006178) is categorically excluded and, therefore, normally does not require the preparation of an environmental assessment (EA) or an environmental impact statement (EIS). FDA has considered whether there are extraordinary circumstances that would require the preparation of an EA and has determined that none exist.

6. CONCLUSION AND RECOMMENDATION

The following are the differences in characteristics between the new and predicate tobacco products:

- Decreases or minimal increases in HPHC yields
- Increase of 14% in cigarette paper base paper porosity
- Minimal ingredient changes in the cigarette paper and tipping paper such as (b) (4)
- Increases in the (b) (4) and (b) (4) derivatives in the heated component of the new tobacco product
- Addition of the humectant - (b) (4)

The applicant has demonstrated that these differences in characteristics do not cause the new tobacco products to raise different questions of public health. The differences in ingredients in the cigarette paper and tipping papers as well as the increases in (b) (4) [redacted] and (b) (4) [redacted] derivatives in the heated component of the new tobacco product are minimal. Additionally, given the likelihood that the new product will not undergo pyrolysis and, accordingly, will not result in increased HPHC exposure, these differences do not cause the new tobacco products to raise different questions of public health. Indeed, the HPHC yields in the new tobacco products, relative to the corresponding predicate tobacco products, either decreased or increased within the expected variability of the analytical methods. Additionally, although the new tobacco products had an increase of 14% in the cigarette paper base paper porosity, which may increase HPHC exposure, as well as the addition of a humectant, which can form acrolein when pyrolyzed, given the comparable HPHC yields, these differences do not cause the new product to raise different questions of public health. Therefore, the differences in characteristics between the new and corresponding predicate products do not cause the new tobacco products to raise different questions of public health.

The predicate tobacco products meet statutory requirements because they are grandfathered products (i.e., were commercially marketed in the United States other than exclusively in test markets as of February 15, 2007).

All of the scientific reviews conclude that the differences between the new and corresponding predicate tobacco products are such that the new tobacco products do not raise different questions of public health. I concur with these reviews and recommend that SE order letters be issued.

Because the proposed action is issuing SE orders for these provisional SE Reports, it is a class of action that is categorically excluded under 21 CFR 25.35(a). FDA has considered whether there are extraordinary circumstances that would require the preparation of an environmental assessment (EA) and has determined that none exist. Therefore, the proposed action does not require the preparation of an EA or an environmental impact statement.

SE order letters should be issued for the new tobacco products in SE0006177 and SE0006178, as identified on the cover page of this review.