FDA U.S. FOOD & DRUG ADMINISTRATION

Technical Project Lead (TPL) Review:

SE0000097

SE0000097: Timber Wolf Pouches Mint[1]	
Package Type	Plastic Can and Lid with disposal reservoir
Package Quantity	23.25 g
Portion Count	15 pouches
Portion Mass	1.55 g
Portion Length	41 mm
Portion Width	17 mm
Portion Thickness	6 mm
Tobacco Cut Size	(b) (4) CPI
Characterizing Flavor	Peppermint
Additional Properties	(b) (4)
Common Attributes of SE Reports	
Applicant	Swedish Match USA, Inc.
Report Type	Provisional
Product Category	Smokeless Tobacco Product
Product Sub-Category	Portioned Moist Snuff
Recommendation	
Issue a Substantially Equivalent (SE) order.	

[1] While the name of the new product appears to imply that the characterizing flavor is mint, the characterizing flavor of the new product is peppermint.

Technical Project Lead (TPL):

Matthew J. Walters -S
2018.05.17 15:19:51 -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: 2018.05.18 07:26:54 -04'00'

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

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1. BACKGROUND

1.1. PREDICATE TOBACCO PRODUCT

The applicant submitted the following predicate tobacco product:

SE0000097: Timber Wolf Pouches Mint	
Product Name	Timber Wolf Packs Wintergreen
Package Type	Plastic Can and Lid with disposal reservoir
Package Quantity	23.25 g
Portion Count	15 pouches
Portion Mass	1.55 g
Portion Length	41 mm
Portion Width	17 mm
Portion Thickness	6 mm
Tobacco Cut Size	(b) (4) CPI
Characterizing Flavor	Wintergreen
Additional Properties	(b) (4)

The predicate tobacco product is a portioned moist snuff smokeless tobacco product manufactured by the applicant.

1.2. REGULATORY ACTIVITY RELATED TO THIS REVIEW

FDA received one SE Report (SE0000097) from Swedish Match North America, Inc. (SMNA) on March 10, 2011. FDA issued an Acknowledgment letter on July 19, 2011. FDA issued an Advice/Information (A/I) Request letter on December 27, 2012. FDA received the response to the A/I Request letter on January 25, 2013 (SE0006487). On April 17, 2013, FDA called SMNA to request full identification of the predicate product. FDA received a response to the predicate product information request on April 23, 2013 (SE0008261). FDA issued a Notification letter on August 11, 2015, to inform the applicant that scientific review would begin on September 25, 2015. On September 23, 2015, FDA received an amendment (SE0012385), requesting to change the predicate tobacco product from (b) (4) to Timber Wolf Packs Wintergreen. FDA issued an A/I letter on August 25, 2017. FDA received a general correspondence stating that the name of the company changed from Swedish Match North America, Inc. to Swedish Match USA, Inc. on September 7, 2017 (TC0002691). On October 10, 2017, FDA issued a Correction letter to correct a numerated item in the August 25, 2017, A/I letter. FDA received a response to the A/I letter on October 23, 2017 (SE0014390). FDA issued a Preliminary Finding (PFind) letter on January 12, 2018. FDA received a response to the PFind letter on February 7, 2018 (SE0014504).

Product Name	SE Report	Amendments
Timber Wolf Pouches Mint 23.25 g	SE0000097	SE0006487 SE0008261 SE0012385 SE0014390 SE0014504

1.3. SCOPE OF REVIEW

This review captures all regulatory, compliance, and scientific reviews completed for this SE Report.

2. REGULATORY REVIEW

Regulatory reviews were completed on December 27, 2012, by Stephanie Redus and on February 19, 2013, by Joanna Randazzo.

The final review concludes that the SE Report is administratively complete.

3. COMPLIANCE REVIEW

The Office of Compliance and Enforcement (OCE) completed reviews to determine whether the applicant established that the predicate tobacco product is a grandfathered product (i.e., was commercially marketed in the United States other than exclusively in test markets as of February 15, 2007). The OCE reviews dated September 15, 2015, and November 16, 2015, conclude that the evidence submitted by the applicant is adequate to demonstrate that the predicate tobacco product is a grandfathered product and, therefore, is an eligible predicate tobacco product.[2]

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 Jeffrey Ammann on January 13, 2016, and by Changyu Chae on December 22, 2017.

The final chemistry review concludes that the new tobacco product has different characteristics related to product chemistry compared to the predicate tobacco product but the differences

[2] Addendum reviews were completed on May 17, 2018 for SE0000097 to clarify the characterizing flavor for the predicate tobacco product. Since the initial grandfather determination on September 15, 2015, was based on the same product characteristics apart from characterizing flavor, the addendum review does not change the conclusion of the initial determination.

does not cause the new tobacco product to raise different questions of public health. The review identified the following differences:

- Addition of [redacted] to the can lid
- Lower HPHC levels (including acetaldehyde, arsenic, benzo[a]pyrene, cadmium, crotonaldehyde, formaldehyde, nicotine, NNK, and NNN)
- Addition of [redacted] mg/g product), [redacted] mg/g product), and [redacted] mg/g product)[3]
- Removal of [redacted] mg/g product)
- Increase in specially [redacted] compared to the predicate product (from [redacted] mg/g product)

The new and predicate tobacco products contain the same tobacco composition. Although there are differences in ingredients between the new and predicate tobacco products, these differences do not result in increased HPHC levels in the new tobacco product compared to the predicate tobacco product. Therefore, the differences in characteristics between the new and predicate tobacco product do not cause the new tobacco product to raise different questions of public health from a chemistry perspective.

4.2. ENGINEERING

Engineering reviews were completed by Erdit Gremi on January 13, 2016, and by Julie Morabito on December 21, 2017.[4]

The final engineering review did not identify any differences in characteristics between the new and predicate tobacco products that could cause the new tobacco product to raise different questions of public health from an engineering perspective. Therefore, the differences in characteristics between the new and predicate tobacco products do not cause the new tobacco product to raise different questions of public health related to product engineering.

4.3. MICROBIOLOGY

Microbiology reviews were completed by Almaris Alonso on January 26, 2016 and December 21, 2017.[5]

The final microbiology review concludes that the new tobacco product has different characteristics related to product microbiology compared to the predicate tobacco product but

[3] The 2nd chemistry review indicated that Deficiency 5 of the Preliminary Finding letter was not resolved, however, this was a typo, as this deficiency was resolved because the applicant provided sufficient information explaining the meaning of N/A and the reporting of "mg/unit of use."

[4] The 2nd engineering review dated December 21, 2017 contained the incorrect predicate product name for this SE Report. The 1st engineering review dated January 13, 2016 was accurate with the correct predicate name for this SE Report. Additionally, the 2nd engineering review indicated there was a decrease in the package quantity, however, this was not accurate as both the new and predicate product contained the same quantity of pouches (15 pouches).

[5] The 2nd microbiology review dated December 21, 2017 references the predicate product as Timber Wolf Pouches Mint 23.25 g whereas the correct predicate name should be Timber Wolf Pouches Wintergreen 23.25 g. This does not change the conclusion of the 2nd microbiology review.

the differences do not cause the new tobacco product to raise different questions of public health. The review identified the following differences:

- Decrease in NNN+NNK (24%) and total TSNAs (30%) levels during the product storage period[6]
- Increase in TAMC[7] at the beginning (27%), middle (33%) and end (109%) of product storage time

The applicant provided stability data for pH, moisture content (OV%), NNN, NNK, total TSNAs measured over the storage time of the new and predicate tobacco products. The pH and moisture data of the new tobacco product showed little variation compared to the predicate tobacco product over product storage time. The new tobacco product showed an increase in TAMC in comparison to the predicate tobacco product at the beginning, middle and end of product storage time, however these changes are not significant during the overall storage time of the product. Furthermore, this increase is adequately addressed based on the decreases in NNN+NNK and total TSNA levels over the new tobacco product storage time. There were no changes in TYMC[8] over the course of the storage time. Therefore, the differences in characteristics between the new and predicate tobacco products do not cause the new tobacco product to raise different questions of public health related to microbiology.

4.4. TOXICOLOGY

Toxicology reviews were completed by James Hobson on March 10, 2016, and Dana Lauterstein on January 4, 2018, and on March 19, 2018.

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

- Lower HPHC levels (including acetaldehyde, arsenic, benzo[a]pyrene, cadmium, crotonaldehyde, formaldehyde, nicotine, NNK, and NNN)
- Addition of [redacted] mg/g product), [redacted] mg/g product), and [redacted] mg/g product)
- Removal of [redacted] mg/g product)
- Increased specially [redacted] (from [redacted] mg/g product)

Although there are differences in ingredients between the new and predicate tobacco products, the applicant provided adequate evidence to demonstrate that the ingredient differences do not cause the new products to raise different questions of public health. For example, the applicant provided peer reviewed literature to demonstrate that user exposure to [redacted] the active metabolite of [redacted], is unlikely to be increased from use of the new product as compared to the predicate product. Additionally, based on the reduction of the

[6] The product storage includes the beginning (0 weeks), middle (14 weeks), and end of the measured time course (26 weeks)
[7] TAMC: total aerobic microbial count
[8] TYMC: total combined yeasts and molds count

total level of (b)(4) -containing ingredients and (b) (4) in the new product compared to the predicate product, the amount of (b)(4) added to the new product is unlikely to cause the new product to raise different questions of public health. Furthermore, these differences do not result in increased HPHC levels in the new tobacco product compared to the predicate tobacco product. Therefore, the differences in characteristics between the new and predicate tobacco products does not cause the new tobacco product to raise different questions of public health related to toxicology.

4.5. SOCIAL SCIENCE

Social science reviews were completed by Joelle Robinson on January 27, 2016, and by Rhonda Moore on December 22, 2017.

The final social science review concludes that the characteristics will not affect consumer perception and use of the new and predicate tobacco products since both products contain a charactering flavor. The new product contains the characterizing flavor peppermint whereas the predicate product contains the charactering flavor wintergreen. Since the differences in flavor between the new and predicate products are not changes between non-characterizing and characterizing flavors, as indicated by use of flavor descriptors in the new and predicate products, it is unlikely that these changes in flavor will cause the new products to raise different questions of public health beyond those of the predicate product, from a social science perspective.

The review also evaluated the health information summary for the SE Report. FDA has determined that the health summary provided for the SE Report would not cause a violation of section 911 of the FD&C Act upon introduction or delivery for introduction of the new product into interstate commerce.

4.6. BEHAVIORAL AND CLINICAL PHARMACOLOGY

A behavioral and clinical pharmacology review was completed by Kia Jackson on January 14, 2016.

The behavioral and clinical pharmacology review concludes that the new tobacco product has different characteristics related to consumer use of the product and impact on exposure and behavior compared to the predicate tobacco product, but the differences do not cause the new tobacco product to raise different questions of public health. The review identified the following differences:

- Addition of mg/g product), mg/g product), mg/g product)
- Removal of mg/g per product)

This review evaluated the change in flavor profile from wintergreen in the predicate product to peppermint in the new product. While a change from a non-flavored (e.g., tobacco, original) to flavored smokeless tobacco product raises different questions of public health, there is insufficient evidence, at this time, to suggest that a change from one characterizing flavor to a

different characterizing flavor (e.g., a change from “wintergreen” to “peppermint”) in a smokeless tobacco product will promote changes in use behavior. The type and level of sweetener and flavor component levels are also similar between the new and predicate product. Therefore, the differences in characteristics between the new and predicate tobacco products do not cause the new tobacco product to raise different questions of public health from a behavioral and clinical pharmacology perspective.

5. ENVIRONMENTAL DECISION

An environmental review was completed by Christine Modovsky on May 7, 2018.

The environmental review found the manufacturing facility where the new product will be manufactured is in violation of the Clean Water Act. As this is an extraordinary circumstance, the action cannot be categorically excluded. Additional information is needed to determine whether to prepare an Environmental Impact Statement (EIS) or Finding of No Significant Impact (FONSI).

6. CONCLUSION AND RECOMMENDATION

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

- Addition of [redacted] to the can lid
- Lower HPHC levels (including acetaldehyde, arsenic, benzo[a]pyrene, cadmium, crotonaldehyde, formaldehyde, nicotine, NNK, and NNN)
- Addition of [redacted] mg/g product), [redacted] mg/g product), and [redacted] mg/g product)
- Removal of [redacted] mg/g product)
- Increased specially [redacted] (from [redacted] mg/g product)
- Decrease in NNN+NNK (24%) and total TSNAs (30%) levels during the product storage period
- Increase in TAMC at the beginning (27%), middle (33%) and end (109%) of product storage time
- Change in characterizing flavor from wintergreen to peppermint

The applicant has demonstrated that these differences in characteristics does not cause the new tobacco product to raise different questions of public health. The applicant indicated the tobacco blend remained unchanged between the new and predicate tobacco products. The applicant provided data demonstrating HPHC quantities, including aldehydes, NNN, NNK, nicotine, and benzo[a]pyrene, are up to 11% lower in the new compared to predicate tobacco product. The applicant also provided information on the stability of the new and predicate products by providing NNN, NNK, mold counts, and yeast counts. This data demonstrated that these stability indicators were not significantly different between the new and predicate tobacco products. Additionally, the new product contains the characterizing flavor peppermint whereas the predicate tobacco product contains the characterizing flavor wintergreen. Since the differences in flavors between the new and predicate products are not changes between non-characterizing and characterizing flavors, as indicated by use of flavor descriptors in the new and predicate products, it is not expected that

these changes in flavor will cause the new products to raise different questions of public health. Therefore, the differences in characteristics between the new and predicate products do not cause the new tobacco product to raise different questions of public health.

The predicate tobacco product meets statutory requirements because it was determined that it is a grandfathered product (i.e., was 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 predicate tobacco products are such that the new tobacco product does not raise different questions of public health. I concur with these reviews and recommend that an SE order letter be issued.

However, FDA has identified that the manufacturing facility where the new products will be manufactured is in violation of the Clean Water Act. As this is an extraordinary circumstance, the action cannot be categorically excluded. Additional information is needed to determine whether to prepare an Environmental Impact Statement (EIS) or Finding of No Significant Impact (FONSI). An inadequate resolution of this issue may delay or prevent issuance of the SE order letter.

An Advice/Information Request letter should be issued requesting the following information:

1. Your SE Report lacks sufficient information on the environmental effects from manufacturing the new tobacco product. In April 2018, FDA became aware that the U.S. Environmental Protection Agency's "Enforcement and Compliance History Online" (ECHO) database indicates "Noncompliance" or "Violation" status concerning the manufacturing facility of the new product and the requirements of the Clean Water Act. The presence of extraordinary circumstances (and thus the applicability of a categorical exclusion) is indicated by whether a normally excluded action may have a significant environmental effect (40 CFR 1508.4), which is in turn indicated in part by whether the action may violate federal, state, or local law or requirements imposed for the protection of the environment (40 CFR 1508.27(b)(10)). Provide information on the status of the violation listed in ECHO. For example, you could provide documentation from the Kentucky Department for Environmental Protection (KYDEP) that the violation listed in ECHO has been resolved or that a solution satisfactory to KYDEP is in progress.

If the applicant adequately responds to this request and an EIS or FONSI is completed, an SE order letter should be issued for the new tobacco product in SE0000097, as identified on the cover page of this review.