

Programmatic Environmental Assessment for Marketing Orders for New Combusted, Filtered Cigarettes Manufactured by ITG Brands, LLC

Prepared by Center for Tobacco Products U.S. Food and Drug Administration

July 9, 2021

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1. Applicant and Manufacturer Information

Applicant Name:	ITG Brands, LLC
Applicant Address:	714 Green Valley Road
	Greensboro, NC 27408
Manufacturer Name:	ITG Brands, LLC
Product Manufacturing	2525 East Market Street
Address:	Greensboro, NC 27401

2. Product Information

New Product Submission Tracking Numbers (STN), Names, and Original Products Names

New Product Name	STN	Original Product Name	STN
Kool 100s Box	EX0001504/PD1	Kool 100s Box	EX0000443
Kool Blue Box	EX0001504/PD3	Kool Blue Box	EX0000445
Kool Box	EX0001504/PD5	Kool Box	EX0000446

Product Identification

Product Category	Cigarettes
Product Subcategory	Combusted Filtered
Number of Products per Retail Unit	20 cigarettes per box
Product Package	The packaging materials consist of a foil inner liner, inner frame, box, film overlap, and carton.

3. The Need for the Proposed Actions

The proposed actions, requested by the applicant, are for the Food and Drug Administration (FDA) to issue exemptions from substantial equivalence (SE) reporting for marketing orders under section 905(j)(3) of the Federal Food, Drug, and Cosmetic Act (FD&C Act) for three combusted, filtered tobacco products. A tobacco product that is modified by adding or deleting a tobacco additive, or increasing or decreasing the quantity of an existing tobacco additive, may be considered for exemption from demonstrating substantial equivalence if (1) the product is a modification of another tobacco product and the modification is minor, (2) the modifications are to a tobacco product that may be legally marketed under the FD&C Act, (3) an SE Report is not necessary to ensure that permitting the tobacco product to be marketed would be appropriate for the protection of public health, (4) the modified tobacco product is marketed by the same organization as the original product, and (5) an exemption is otherwise appropriate.

The applicant wishes to introduce the new tobacco products into interstate commerce for commercial distribution in the United States. The applicant must obtain written notification that FDA has granted the products exemptions from demonstrating substantial equivalence under section 905(j)(3) before submitting an abbreviated report. Ninety days after FDA receipt of the abbreviated report, the applicant

may introduce or deliver for introduction into interstate commerce for commercial distribution the new products for which the applicant has obtained exemptions from demonstrating substantial equivalence.

The original products are tobacco products exempted from demonstrating substantial equivalence to original products and are commercially marketed in the United States as of March 29, 2019. The new products differ from the corresponding original products due to changes in the composition of the Fire Standard Compliant paper (Confidential Appendix 1).

4. Alternatives to the Proposed Actions

The no-action alternative is FDA does not issue marketing orders for the new tobacco products.

5. Potential Environmental Impacts of the Proposed Actions and Alternatives – Manufacturing the New Products

The Agency considered potential impacts to resources in the environment that may be affected by manufacturing the new products and found no significant impacts based on the Agency-gathered information and the following applicant-submitted information:

- The new and original products will not be marketed simultaneously after marketing orders are issued.
- The new products will replace similar tobacco products currently manufactured at the facility.
- No facility expansion or new construction is expected due to manufacturing the new products.

5.1 Affected Environment

The affected environment includes human and natural environments surrounding the manufacturing facility at the address listed in section 1 of this document (Figure 1).



Figure 1. Location of the Manufacturing Facility¹

The facility is surrounded by mixed used residential and commercial land. A main highway is located to the north and train tracks located to the west. The surrounding forest areas are considered under Maintaining Viable Urban Forest of high to very high priority, according to the North Carolina Forest Action Plan.²

5.2 Air Quality

The Agency does not anticipate that manufacturing the new products will cause the release of any new chemicals or new type of emissions into the environment. The applicant stated that manufacturing the new products is not expected to result in changes in air emissions or require any additional environmental controls for air emissions.

5.3 Water Resources

The Agency does not anticipate that manufacturing the new products will cause the discharge of any new chemicals into water. The new products are intended to replace similar tobacco products currently manufactured at the facility.

5.4 Soil, Land Use, and Zoning

The Agency does not anticipate that manufacturing the new products will lead to changes in soil, land use, or zoning. The applicant stated that there will be no expected facility expansion due to

¹ Map of 2525 East Market Street, Greensboro, North Carolina 27401, Retrieved from Google maps. Accessed June 15, 2021.

² North Carolina Forest Action Plan. Available at <u>https://www.ncforestactionplan.com/assessment_document.htm</u>, and North Carolina Forest Action Plan Priority Layer Map Viewer. Available at <u>https://www.ncforestactionplan.com/.</u> Accessed June 15, 2021.

manufacturing the new products. Therefore, there will be no zone change or land conversion of prime farmland, unique farmland, or farmland of statewide importance to non-agricultural use.

5.5 Biological Resources

The Agency does not anticipate that manufacturing the new products will jeopardize the continued existence of any listed species or result in the destruction or adverse modification of the habitat of any such species identified under the Endangered Species Act (ESA). The Agency review of the storm water permit shows the outfall from the facility is Muddy Creek of the Cape Fear River Basin, under the classification Nutrient Sensitive Water, Water Supply V- Upstream, and considered impaired for aquatic life according to the Cape Fear River Basin Restoration Priorities 2009.^{3,4} In addition, the National Wetlands Inventory identified a Riverine habitat adjacent to the facility.⁵ U.S. Fish and Wildlife Service (FWS) map shows that the facility is not within or near a critical habitat, or endangered animal and plant species.⁶ The search of the U.S. FWS critical habitat and endangered species shows two fishes (*Notropis mekistocholas*, and *Percina rex*) and one flowering plant (Helianthus schweinitzii) as endangered species and identifies one threatened flowering plant species (Isotria medeoloides), and one proposed threatened clam species (Fusconaia masoni) listed in Guilford County or the surrounding area.⁷

5.6 Regulatory Compliance

The applicant stated that the manufacturing facility complies with all federal, state, and local environmental regulations. The applicant provided detailed information for the following air, storm water, and wastewater permits.

- (1) Permit for the construction and operation of the emission sources and associated air pollution control devices in the manufacturing facility issued by the State of North Carolina Division Of Air Quality with number 04398T23. The Agency review found that the emission sources, which include two boilers, tobacco screener, and ten lines of cigarette making machines, are operating in compliance with air quality rules and regulations.⁸
- (2) Permit for the discharge of stormwater at the manufacturing site in a regulated outfall issued by the State of North Carolina Department of Environmental Quality Division of Energy, Mineral, and Land Resources with number NCG060281.⁹

⁶ U.S. Fish and Wildlife Services (U.S. FWS). Critical habitat map available at:

³ State of North Carolina Department of Environmental Quality Division of Energy, Mineral, and Land Resources. Stormwater Permit NCG060281 Summary. https://deq.nc.gov/about/divisions/energy-mineral-and-land-

resources/stormwater/stormwater-program/npdes-industrial. Accessed June 15, 2021

⁴ Cape Fear River Basin Restoration Priorities 2009.

https://files.nc.gov/ncdeg/Mitigation%20Services/Watershed_Planning/Cape_Fear_River_Basin/RBRP%20CapeFear%202009% 20Revised%20032013.pdf. Targeted Local Watersheds; Muddy Creek Hydrologic Unit 03030007060010. Accessed June 15, 2021.

⁵ U.S. Fish and Wildlife Services National Wetlands Inventory (NWI), Wetlands Mapper, available at:

https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/. Accessed June 15, 2021,

https:///fws.maps.arcgis.com/home/item.html?id=794de45b9d774d21aed3bf9b5313ee24. Accessed June 15, 2021.

⁷ U.S. Fish and Wildlife Services (U.S. FWS) Endangered Species by County. Available at <u>https://www.fws.gov/endangered/</u>.

Accessed June 15, 2021.

⁸ North Carolina Environmental Quality. <u>https://xapps.ncdenr.org/aq/docs/FDocs_Search.jsp</u>. Public Record Search of facility ID 4100198. Accessed June 15, 2021.

(3) Permit for the significant industrial wastewater discharge of wastewater from the manufacturing facility into the City of Greensboro Sanitary Sewer System to the T.Z. Osborne Water Reclamation Facility issued by the City of Greensboro Water Resources Department Industrial Waste Section with number P004.

The Agency's search of EPA's Enforcement and Compliance History Online (ECHO) database did not reveal any violations of the environmental laws and regulations at the facility.¹⁰

5.7 Socioeconomics and Environmental Justice

No changes on socioeconomics are anticipated due to manufacturing the new products. The Agency does not anticipate any impacts on employment revenue, or taxes because the new products are intended to replace similar tobacco products currently manufactured at the facility.

No changes in impacts on environmental justice are anticipated. The applicant stated that the future year projections of cigarette production at the facility, including the new products, are within the existing permitted manufacturing capacity and will not require facility expansion. Also, as discussed, the emissions and discharges from the facility are not expected to change due to manufacturing the new products. Thus, though 2010 U.S. Census and American Community Survey data show that 78% of the population within a three-mile radius of the manufacturing facility is minority,¹⁰ no disproportionate impacts to environmental justice populations will occur as a result of manufacturing the new products. In addition, the facility is not located within Native American lands.

5.8 Solid Waste and Hazardous Materials

The Agency does not foresee that the introduction of the new products will notably affect the current manufacturing waste generated from the facility production of all combusted, filtered cigarettes. The Agency anticipates the waste generated due to manufacturing the new products will be released to the environment and disposed of in landfills or recycle. The applicant stated that manufacturing the new products will not change the types of waste or increase the amount of waste disposal. Therefore, no new or revised waste permit or construction of new waste management facility is expected.

A search in EPA's Toxic Release Inventory (TRI) database showed that in 2019, the ITG Brands, LLC manufacturing facility released to the environment (b)(4) pounds of nicotine or nicotine salts and (b)(4) pounds of ammonia (Table 1). The TRI database search did not show that the ITG Brands, LLC manufacturing facility disposed of, treated, or released into the environment any other reportable toxicants associated with manufacturing tobacco products.¹¹

Table 1 Management of Chemical Waste Associated with Manufacturing Tobacco Products at ITGBrands, LLC in 2019

¹⁰ EPA ECHO Detailed Facility Report: ITG Brands, LLC., Greensboro, NC. Available at: <u>https://echo.epa.gov/detailed-facility-report?fid=110000346787</u>, Accessed June 15, 2021.

¹¹ U.S. Environmental Protection Agency (EPA). TRI data search of TRI 27 420LRLLR2525E. Available at: <u>https://enviro.epa.gov/facts/tri/ef-facilities/#/Facility/27420LRLLR2525E</u>. Accessed June 15, 2021.

Production-Related	Waste Managed o	r Released	Chemical Mass (Pounds)
Recycled			(b)(4)
Energy Recovery			
Ammonia	Off-Site Treated	Transfer to POTW ¹²	
		Other	
Nicotine and Nicotine	Off-Site Treated	Transfer to POTW ¹²	
Salts		Other	
Subtota	l Waste Managed		
A	On-Site	Water	
Ammonia	Disposal/ Release	Air stack	
Nicotine and Nicotine	On-Site Disposal/ Release	Water	
Salts		Air stack	
Subtoto	al Waste Released		
Total Produ	uction-Related Was	te	

5.9 Floodplains, Wetlands, and Coastal Zones

There will be no facility expansion due to manufacturing the new products and the applicant did not propose any land disturbance; therefore, there will be no effects on floodplains, wetlands, or coastal zones.

5.10 Impacts from No-Action Alternative

The environmental impacts of the no-action alternative will not change the existing condition of manufacturing cigarettes at the listed facility, as many similar tobacco products will continue to be manufactured.

6. Potential Environmental Impacts of the Proposed Actions and Alternatives – Use of the New Products

The Agency considered potential impacts to resources in the environment that may be affected by use of the new products and found no significant impacts based on Agency-gathered information and the applicant's submitted information. Included in the information the Agency considered were the projected market volumes for the new products (Confidential Appendix 2) and the documented decline in cigarette use in the United States.

¹² POTW = Publicly owned treatment works



6.1 Affected Environment

The affected environment includes human and natural environments in the United States because the marketing orders will allow for the introduction of the new products into interstate commerce.

6.2 Air Quality

The impacts from use of combusted tobacco products include exposure to secondhand smoke (SHS) produced from burned cigarettes. Particles emitted by smoking may remain on surfaces, be re-emitted back into the gas phase, or react with oxidants and other compounds in the environment to yield secondary pollutants, thirdhand smoke (THS). These pollutants coexist in mixtures in the environment alongside SHS (Burton, 2011; Matt et al., 2011).

There is no safe level of exposure to SHS (U.S. Department of Health and Human Services, 2006a and 2006b). Even low levels of SHS can harm children and adults in many ways, including the following:

- The U.S. Surgeon General estimates that living with a smoker increases a nonsmoker's chances of developing lung cancer by 20 to 30% (U.S. Department of Health and Human Services, 2014).
- Exposure to SHS increases school children's risk for ear infections, lower respiratory illnesses, more frequent and more severe asthma attacks, and slowed lung growth. It can cause coughing, wheezing, phlegm, and breathlessness (U.S. Department of Health and Human Services, 2006a and 2006b).
- SHS causes more than 40,000 deaths a year (U.S. Department of Health and Human Services, 2014).

However, the use of cigarettes in the United States is declining, per the U.S. Alcohol and Tobacco Tax and Trade Bureau (TTB) Statistical Release reports (Figure 2) (U.S. Alcohol and Tobacco Tax and Trade Bureau, 2021). This likely is responsible for the decline in SHS exposure observed in several studies that evaluated the levels of SHS exposure in children and nonsmokers living in homes of smokers (Homa et al., 2015; Yao et al., 2016). Despite the considerable ethnic and racial disparities in SHS exposure in vulnerable populations, data from the National Health and Nutrition Examination Survey showed a decline in SHS exposure from 1999-2000 to 2011-2012 with the highest prevalence of exposure among non-Hispanic subpopulations (46.8%), compared to Mexican Americans (23.9%) and non-Hispanic whites (21.8%) in 2011-2012 (Homa et al., 2015). There were also significant declines in SHS exposure prevalence noted in the 2000 and 2010 National Health Interview Survey Cancer Control Supplements. SHS exposure declined in Hispanics from 16.3% in 2000 to 3.1% in 2010, non-Hispanic Asians from 13.4% in 2000 to 3% in 2010, and non-Hispanic blacks from 31.2% in 2000 to 11.5% in 2010 as compared to exposures in non-Hispanic whites, which declined from 25.8% in 2000 to 9.7% in 2010 (Yao et al., 2016).

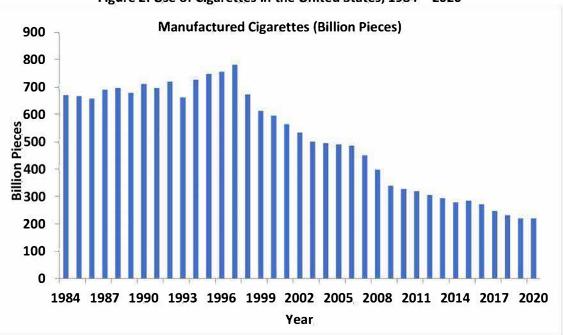


Figure 2. Use of Cigarettes in the United States, 1984 – 2020

As of December 2020, 28 states and the District of Columbia had implemented comprehensive smokefree laws (American Lung Association, 2021). Such laws are also expected to reduce the levels of nonusers' exposure to SHS and THS.

The Agency does not anticipate that new chemicals will be released into the environment as a result of use of the new products, relative to chemicals released into the environment due to use of other cigarettes already on the market because (1) the combustion products from the new products will be released in the same manner as the combustion products of the original products and any other marketed cigarettes, (2) the new products are expected to compete with, or replace, other currently marketed cigarettes, and (3) the ingredients in the new products are used in other currently marketed products.

6.3 Environmental Justice

No new emissions are expected due to use of the new products. Therefore, there will be no new disproportionate impacts on minority or low-income populations.

6.4 Impacts from No-Action Alternative

The environmental impacts of the no-action alternative will not change the existing condition of use of cigarettes, as many similar tobacco products will continue to be used in the United States.

7. Potential Environmental Impacts of the Proposed Actions and Alternatives – Disposal of the New Products

The Agency considered potential impacts to resources in the environment that may be affected by disposal of the new products. Based on publicly available information such as the documented

continuous decline of cigarette use in the United States, and the applicant's submitted information, including market volume projections for the new products, the Agency found no significant impacts.

7.1 Affected Environment

The affected environment includes human and natural environments in the United States because the marketing orders will a llow for the new products to be sold to consumers and be disposed of in the United States.

7.2 Air Quality

The Agency does not anticipate disposal of the new products or the packaging material will lead to the release of new or increased chemicals into the air.

No changes in air quality are anticipated from disposal of the cigarette butts of the new products. The chemicals in the new products' cigarette butts are commonly used in other currently marketed cigarettes. Therefore, the fate and effects of any materials emitted into the air from disposal of the new products are anticipated to be the same as any materials from other cigarettes disposed of in the United States.

No changes in air quality from disposal of the new products' package materials will be expected because the paper and plastic components of the packages are more likely to be recycled, or at least a portion of the packaging waste is likely to be recycled and the waste generated due to disposal of the new products' packaging is a minuscule portion of the municipal solid waste in the United States (U.S. EPA 2019) per FDA's experience in evaluating the packaging waste generated from cigarettes.

7.3 Water Resources

The Agency does not anticipate any new impacts on water resources due to disposal of the cigarette butts and packaging from the new products because the chemicals in the new products are used in currently marketed cigarettes. Furthermore, the new products will compete with other cigarettes currently on the market and will replace the original product.

7.4 Biological Resources

The proposed actions are not expected to change the continued existence of any endangered species or result in the destruction or adverse modification of the habitat of any such species, as prohibited under the U.S. ESA. The disposal of smoldering cigarettes has been implicated in many fire incidents.^{13,14} The Agency does not anticipate the new products will change the fire frequency as (1) the disposal of the new products and packaging materials will be the same as the disposal of other similar tobacco products that are currently marketed in the United States, and (2) there will be no anticipated increase in number

¹³ National Fire Protection Asso ciation. The smoking-material fire problem. Available at: <u>https://www.nfpa.org/News-and-Research/Fire-statistics-and-reports/Fire-statistics/Fire-causes/Smoking-Materials</u>. Accessed June 15, 2021.

¹⁴ UC Davis Health News. Availabl e at: <u>https://www.ucdmc.ucdavis.edu/publish/news/newsroom/2763</u>. Accessed June 15, 2021.

of cigarettes being disposed of as the new products are anticipated to replace similar marketed cigarettes.

7.5 Solid Waste

A major existing environmental consequence of the use of the new products, as well as other conventional cigarettes, is littering of discarded cigarette filters or butts (Novotny and Zhao, 1999). Cigarette butts are among the most common forms of litter found on beaches (Claereboudt, 2004; Smith et al., 1997), near streams, night clubs (Becherucci and Pon, 2014), bus stops (Wilson et al., 2014), roads, and streets (Healton et al., 2011; Patel et al., 2013). Cigarette butts have been found at densities averaging more than four cigarette butts per meter squared of urban environments (Seco Pon and Becherucci, 2012).

Toxic compounds in cigarette butts leach out into water, potentially threatening human health and the environment, especially marine ecosystems (Kadir and Sarani, 2015; Venugopal et ai., 2021). The environmental toxicity of cigarette butts due to air emissions is not well studied. The chemicals in cigarette butts can be the original chemicals in the unsmoked cigarettes or the pyrolysis and distillation products deposited in the cigarette butts. Airborne emissions from cigarette butts after disposal depend on the environmental conditions and the chemicals in the butts. These emissions can be influenced by several factors, such as the cigarette brand, cigarette length, filter material, types of tobacco, ingredients in the cigarette and tobacco filler, number of puffs, and the mass transfer behavior of combustion products along the cigarette.¹⁵

The Agency does not foresee the introduction of the new products will notably affect the current cigarette butt waste generated form all cigarettes. The waste generated due to disposal of the new products will be handled in the same manner as any other waste generated from any other cigarettes disposed of in the United States. The number of cigarette butts generated is equivalent to the market projections (Confidential Appendix 2) and a portion of those will be littered.

7.6 Socioeconomics and Environmental Justice

The Agency does not anticipate changes in impacts on socioeconomic conditions or environmental justice from disposal of the new products. The waste generated due to disposal of the new products will be handled in the same manner as the waste generated from disposal of other cigarettes in the United States. No new emissions are expected due to disposal of the new products. Therefore, there will be no disproportionate impacts on minority or low-income populations.

7.7 Impacts from No-Action Alternative

The environmental impacts of the no-action alternative will not change the existing condition of disposal of cigarettes and cigarette packaging, as many other similar products will continue to be disposed of in the United States.

¹⁵ NIST Technical Report 8147 available at: <u>http://dx.doi.org/10.6028/NIST.IR.8147</u>. Accessed June 15, 2021.

8. List of Preparers

The following individuals were primarily responsible for preparing and reviewing this programmatic environmental assessment:

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9. A Listing of Agencies and Persons Consulted

Not applicable.

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U.S. Department of Health and Human Services. 2006a. The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Coordinating Center for Health Promotion, Office on Smoking and Health. Atlanta, GA.

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Yao T, Sun HY, Wang Y, Lightwood J, Max W. Sociodemographic differences among U.S. children and adults exposed to secondhand smoke at home: National Health Interview Surveys 2000 and 2010. *Public Health Reports*. 2016;131:357-366.



Confidential Appendix 1: Modifications: New Products as Compared with the Corresponding Original Products

STN	Modification
EX0001504/PD1	 Deletion of complex ingredient FSC cigarette paper (b) (4) (b)(4) (b)(4) Addition of complex ingredient FSC cigarette paper (b)(4)
EX0001504/PD3	Deletion of complex ingredient FSC cigarette paper ^{(b)(4)} (b)(4) Addition of complex ingredient FSC cigarette paper ^{(b)(4)}
EX0001504/PD5	Addition of complex ingredient FSC cigarette paper (^{(b)(4)} Addition of complex ingredient FSC cigarette paper (^{(b)(4)}

Confidential Appendix 2: Current Market Volume for the Original Products, First- and Fifth-Year **Market Volume Projections for the New Products**

First- and fifth-year market volume projections of the new products were compared to the total forecasted use of cigarettes in the United States.¹⁶ The projected use of the new products in the first and fifth year of marketing after marketing orders are issued account for about (b)(4)% and

(h)(4)]%, respectively, of the forecasted cigarette use in the United States. The applicant stated that the new products will replace the original product.

	Projected Market Volume			
	First Year		Fifth Year	
STN	New Tobacco Product (Thousands of Cigarettes)	New Product as a Percent of Total Cigarettes Used ¹⁷	New Product (Thousands of Cigarettes)	New Product as a Percent of Total Cigarettes Used ¹⁷
EX0001504/PD1				(b)(4)
EX0001504/PD3				
EX0001504/PD5				
Total				Ţ

¹⁶ The Agency used historical data regarding total use of cigarettes from 1997 to 2020 to mathematically estimate the total number of cigarettes used in the United States. Using the best-fit trend line with an R² value of 0.9844, the forecasted number of cigarettes that will be used in the United States is estimated at 228.441 billion cigarettes in the first year and 161.201 billion cigarettes in the fifth year of marketing the new products,

¹⁷ Projected Market Occupation of the New Product in the United States (%)= Projected Market Volume of the New Product (cigarette pieces) $x \ 100$

Projected Use of Cigars in United States (cigarette pieces)