Heated Tobacco Products (HTP) Task Force: Update

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HTP – 27 April 2020, Update for ISO

Objectives

1. Establish standardized terminology and definitions that encompass all categories of Heated Tobacco Products
2. Define one or more specific approaches and regimes for the generation and collection of emissions for Heated Tobacco Products
3. Define and agree on priority compounds to be analysed (or not); review current CRM suitability, edit, or develop methods for Heated Tobacco Products

Objective 1:
Establish standardized terminology and definitions that encompass all categories of Heated Tobacco Products

Jason Flora

Purpose of the Definitions

- **Providing consensus on definitions:**
  - **Heated Tobacco Product (as a category)**
  - **Sub-Categories**
  - **Terminology**
- **Creating consistency across the scientific community**
  - **Attributes within and differentiating between the category(s) and sub-categories**
- **Technical Report drafted, in review**

Category Definition

❖ Heated Tobacco Product (HTP)

- ➢ A product containing a tobacco substrate that is designed to be heated and not combusted by a separate source (e.g., electrical, aerosol, carbon, etc.) to produce a nicotine containing aerosol

❖ Example Considerations

- ➢ Tobacco Heating System (THS) or Product (THP) could suggest that the tobacco is doing the heating
- ➢ Heat-not-Burn (HnB) does not include tobacco in the category name

Sub-Categories

- Electrically Heated Tobacco Product (eHTP)
- Aerosol Heated Tobacco Product (aHTP) – also known as a hybrid
- Carbon Heated Tobacco Product (cHTP)
- Other: Sub-categories that may heat tobacco but are currently out of scope:
  - Waterpipe Heated Tobacco Product (wpHTP)- Shisha/Hookah
  - Loose-leaf heating tobacco products (e.g. PAX)

Sub-Categories and Terminology

- Each sub-category has a definition and is broken down in to:
  - Includes
  - May include
  - Does not include
  - Commercial examples

- Additional “terminology” has been defined

Objective 2:
Define one or more specific approaches and regimes for the generation and collection of emissions for Heated Tobacco Products

Colin Sinclair

Conditioning and Testing

- **The conditioning atmosphere is according to ISO 3402 (Tobacco and Tobacco Products - Atmosphere for Conditioning and Testing)**
  - **HTPs are hygroscopic in nature, and effects to consumables are variable within the category**
  - **The purpose of conditioning is to ensure a uniform product temperature**
  - **Samples should be equilibrated in sealed packaging and tested as soon as they have been opened**
- **The testing atmosphere is ISO 3402**
  - **Devices must be fully charged and cleaned according to manufacturer's instructions prior to each test run**

Proposed Aerosol Generation Regimes

- **eHTP: ISO 20778: 2018 (Cigarettes - Routine analytical cigarette smoking machine – Intense smoking regime)**
  - **55ml (puff volume); 2 second (puff duration); 30 second (puff interval)**
  - **Vent blocking only if it is possible for user to do so and device function is not compromised**
- **aHTP - ISO 20768:2018/ CRM 81 (Vapour products – Routine analytical vaping machine)**
  - **55ml (puff volume); 3 second (puff duration); 30 second (puff interval)**
- **cHTP - ISO 20778: 2018.**
  - **Filter vent blocking required if it is possible for user to do so and product function is not compromised**

Conditioning and Regimes

- **Proposed conditioning and aerosol generation regimes drafted in a technical report**

- **Consideration:**
  - **Review whether CRMs are required for HTP specific conditioning and Aerosol Generation Regimes**

Objective 3:

Define and agree on priority compounds to be analysed (or not); review current CRM suitability, edit, or develop methods for Heated Tobacco Products

Maxim Belushkin

What Analytes Do We Test (Priorities)?

- **Priority analytes identified:**

1	2	3
Basic analytes: Propylene glycol, glycerine, nicotine CO, NO, NOx	Carbonyls	TSNAs Volatiles B[a]P / PAHs

- **Review of methodologies currently used, to identify potential method development options:**
  - **What existing ISO or CRM methods can be utilized**
  - **Where no standard analytical methods are used, diversity of methods between laboratories was assessed**

Workstream 3 - Next Steps and Actions:

- **Basic Analytes and CO, NO, NOx:**
  - **Proficiency study: first draft protocol circulated**
  - **Calibration range considerations for sub-categories required**
  - **Confirmation of products for inclusion**
    - Manufacturer volunteers required
- **Next Steps:**
  - **Agreement through CORESTA of Proficiency study project**
  - **Evaluate appropriate justification for LOD/LOQ for "non-detectable" analytes**

Key Activities and Next Steps

- **Technical report approval (submitted SC – Q2, 2020)**
  - **Definitions and terminology**
  - **Proposed conditioning, aerosol generation regimes**
- **Review whether methods required for HTP specific:**
  - **Conditioning and testing environment**
  - **Aerosol generation regimes**
- **Finalise proficiency study on: basic analytes and CO, NO, NOx**
- **Align with ISO technical advisory committee - ISO/TC 126/WG 22, tobacco heating systems**
  - **Collaborative studies**