Presentation S Purkis on CORESTA ASR variability

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Expected action: Info

Background
Presentation from Mr S Purkis at the 2nd meeting of ISO/TC 126/WG 10 on 2008-02-07 in Berlin

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Yield Variability under different regimes

CORESTA Task Force on Alternative Smoking Regimes

- Report issued in 2006
- Two phase study
- Objective - To develop correlation models for smoke yields between ISO and CA and MA regimes

First Phase

- Analysis on 19 laboratories that measured Tar, Nicotine & CO on 10 commercial products (1-12mg) and 2 Kentucky Reference cigarettes
- Study provides within- and among-laboratory variability data
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- Study data shows that highest WITHIN-Laboratory variability is associated with the lowest tar yields under the ISO regime

CORESTA ASR TaskForce data - within lab variability

- Tar yield has been plotted against the AMONG-laboratory standard deviation of tar for the 11 cigarette types having Virginia and US blended styles

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For compliance testing and verification, the important consideration is the AMONG-Laboratory variability

Tar yield has been plotted against the AMONG-laboratory standard deviation of tar for the 11 cigarette types having Virginia and US blended styles
There were statistically significant differences between tar reproducibility under the three regimes.

Higher data variability at any given tar yield may indicate less robustness during smoking in the more intensely smoked cigarette.

Therefore, higher tolerance values may be required for these more intense regimes.
Why might intense smoking regimes be less robust - Moisture differences??

As the smoking regime becomes more intense so the percentage of water in the wet TPM increases.

![Graph showing moisture differences in TPM over NFDPM]