

Unit ID: R&DTOTAL Unit Mgr: Appleton/Lauterbach
 Unit Name: Research and Development

SubUnit: Appleton/Lauterbach

NHM: Tilford Riehl
 Dept: R&D

IDEA NUMBER : 292

MAE : 4.1.4

BRIEF : Change NPD to FID for nicotine and combine with smoke menthol.
 DESCRIPTION :

FULL DESCRIPTION : Most smoking laboratories use the more universal flame ionization detector (FID) for the determination of nicotine in smoke condensate. BW used the Nitrogen Phosphorus Detector (NPD) because of its superior sensitivity and element selectivity. This eliminates any non-nitrogenous coeluting components from the chromatogram.

BENEFITS : Selectivity (minimum interferences) - potentially faster sample turn around time. Might be able to do smoke menthols with nicotine. FID is more sensitive and robust & will eliminate ~ 9 down days / GC / year.

ADVERSE CONSEQUENCES : FID might require us to slow chromatography and GC productivity. We might not be able to quantitate nicotine and menthol in a reasonable amount of time.

IMPLEMENTATION CONSIDERATIONS : will require ~ \$800/GC for FID components.

~ 2 man months for method revision and documentation.

START UP	\$ 7,500
COSTS OTHER	\$ 3,200
TOTAL (000's)	\$ 10,700
PAYBACK (YEARS)	15 months

NHM COMMENTS :

Unit Mgr COMMENTS :

STC COMMENTS :

RISK STATUS INITIAL

Unit Mgr: _____
 NHM: _____
 S/U/R: L G _____
 STATUS: _____
 STC: _____

	UNIT SAVINGS (COST)	OTHER UNIT SAVINGS (COST)	NET UNIT SAVINGS	(OVERLAP DATA)		FORM 20 UNIT SAVINGS	FORM 20 NET UNIT SAVINGS
				UNIT SAVINGS (COST)	OTHER UNIT SAVINGS (COST)		
FTE #0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PERSONNEL \$10,000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NONPERSONNEL \$2,600	0.0	0.0	0.0	0.0	0.0	0.0	0.0
\$ 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL (000's) \$	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	12,600						

Note : Negative entries denote costs.

Recycle

To do

IDEA EVALUATION

Brown & Williamson Tobacco Corp.

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MAE :

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DESCRIPTION :

FULL : Most laboratories use the more universal flame ionization detector (FID) for the determination of nicotine in smoke condensate. B&W used the nitrogen-phosphorus detector (NPD) because of its superior sensitivity and element selectivity. This eliminates any non-nitrogenous collecting components from the chromatogram. Selectivity (minimum interference) - potentially faster sample turnaround time. FID is more robust & will eliminate ~ 9 down days / GC/YR. FID might require us to slow chromatography and reduce GC productivity. We might not be able to quantify nicotine and menthol in a reasonable amount of time.

not be able to meet the needs with the current

ADVERSE :

CONSEQUENCES :

IMPLEMENTATION :
 CONSIDERATIONS :

Will require ~ \$500/GC for FID components
 ~ 2 man-months for method revision, evaluation & final documentation

START UP	Method	MTS	\$ 7,500.00
COSTS	OTHER		\$ 3,200.00
TOTAL (000's)			\$ 10,700.00
PAYBACK (YEARS)			15 months

NHM COMMENTS :

/R COMMENTS :

COMMENTS :

Need to see cost

KLU

RISK STATUS INITIAL

Unit Mgr: _____
 NHM: *TR* _____
 S/U/R: _____
 STATUS: _____
 STC: _____

UNIT SAVINGS (COST)	OTHER UNIT SAVINGS (COST)	NET UNIT SAVINGS	(OVERLAP DATA)		FORM 2D UNIT SAVINGS	FORM 2D NET UNIT SAVINGS
			UNIT SAVINGS (COST)	OTHER UNIT SAVINGS (COST)		
FTE # 0.28 0.00	0.00	0.00	0.00	0.00	0.00	0.00
PERSONNEL \$ 10,000.00	0.0		0.0	0.0	0.0	
NONPERSONNEL \$ 3,600.00	0.0		0.0	0.0	0.0	
\$ 0.0	0.0		0.0	0.0	0.0	
TOTAL (000's) \$ 12,600	0.0	0.0	0.0	0.0	0.0	0.0

Note : Negative entries denote costs.

Recycle

To do

591003314

IDEA EVALUATION

Unit ID: R&DTOTAL Unit Mgr: Appleton/Lauterbach
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IMPLEMENTATION CONSIDERATIONS : will require ~ \$800/GC for FID components.

~ 2 man months for method revision evaluation and documentation.

START UP	\$\$\$ \$7,500
COSTS	OTHER \$3,200
TOTAL (000's)	\$10,700
PAYBACK (YEARS)	15 months

NHM COMMENTS :

SR COMMENTS :

COMMENTS :

[Handwritten signatures and scribbles]

RISK STATUS INITIAL

Unit Mgr: _____
 NHM: _____
 S/U/R: L G _____
 STATUS: _____
 STC: _____

UNIT SAVINGS (COST)	OTHER UNIT SAVINGS (COST)	NET UNIT SAVINGS	(OVERLAP DATA)		FORM 2D UNIT SAVINGS	FORM 2D NET UNIT SAVINGS
			UNIT SAVINGS (COST)	OTHER UNIT SAVINGS (COST)		
FTE \$0.28	0.00	0.00	0.00	0.00	0.00	0.00
PERSONNEL \$10,000	0.0		0.0	0.0	0.0	
NONPERSONNEL \$2,600	0.0		0.0	0.0	0.0	
\$ 0.0	0.0		0.0	0.0	0.0	
TOTAL (000's) \$ 0.0	0.0	0.0	0.0	0.0	0.0	0.0
	<u>12,600</u>					

Note : Negative entries denote costs.

Recycle

To do

591003315