McIlvaine Teleconference

August 11, 2011

Selecting a Filter Media

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Filter Resources, Inc.

SELECTING A FILTER MEDIA

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CHOICES

- COLLECTOR
- ELEMENT
- MEDIA

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MEDIA AND DESIGN

ELEMENT DESIGN

- BAGS
- PLEATED BAGS

MEDIA MATERIALS

- FELT
- WOVEN
- MEMBRANE

MEDIA TYPES

- POLYESTER
- ARAMID
- PPS

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- P-84
- GLASS
- BLENDS
- WITH OR WITHOUT MEMBRANE

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MEDIA PROPERTY SHEET

Fiber	Available in	Tensile Strength	Abrasion Resistance	Chemi-cal Acids	Resis-tance Alkalies	Support Com-bustion	Tempera-ture **
Aramid	Woven / Felted	Very Good	Excellent	Fair	Good	No	375ºF
Cotton	Woven	Good	Good	Poor	Good	Yes	180ºF
Fiberglass	Woven / Felted	Excellent	Fair	Good	Fair	No	500ºF
Homo-polymer Acrylic	Woven / Felted Knit/Spun	Good	Good	Very Good	Fair	Yes	260ºF
Nylon	Woven	Excellent	Excellent	Poor	Excellent	Yes	200ºF
P-84	**Woven / Felted**	**Very Good**	**Excellent**	**Very Good**	**Fair**	**No**	**350-500ºF**
PPS	Woven / Felted	Very Good	Excellent	Excellent	Very Good	No	375ºF
Polyester	Woven / Felted Knit	Excellent	Excellent	Fair	Fair	Yes	275ºF
Polypro-pylene	Woven / Felted	Excellent	Excellent	Excellent	Excellent	Yes	200ºF
Teflon	Woven / Felted	Average	Fair	Excellent	Excellent	No	500ºF
Wool	Woven / Felted	Poor	Fair	Good	Poor	No	200ºF

*Maximum operating temperature. Temperature stability is adversely affected by moisture.

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PPS

GLASS WITH HIGH-EFFICIENCY ePTFE MEMBRANE

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MEDIA PROPERTY SHEET

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Aramid	Woven / Felted	Very Good	Excellent	Fair	Good	No	375ºF
Cotton	Woven	Good	Good	Poor	Good	Yes	180ºF
Fiberglass	Woven / Felted	Excellent	Fair	Good	Fair	No	500ºF
Homo-polymer Acrylic	Woven / Felted Knit/Spun	Good	Good	Very Good	Fair	Yes	260ºF
Nylon	Woven	Excellent	Excellent	Poor	Excellent	Yes	200ºF
P-84	**Woven / Felted**	**Very Good**	**Excellent**	**Very Good**	**Fair**	**No**	**350-500ºF**
PPS	Woven / Felted	Very Good	Excellent	Excellent	Very Good	No	375ºF
Polyester	Woven / Felted Knit	Excellent	Excellent	Fair	Fair	Yes	275ºF
Polypro-pylene	Woven / Felted	Excellent	Excellent	Excellent	Excellent	Yes	200ºF
Teflon	Woven / Felted	Average	Fair	Excellent	Excellent	No	500ºF
Wool	Woven / Felted	Poor	Fair	Good	Poor	No	200ºF

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A MEMBRANE

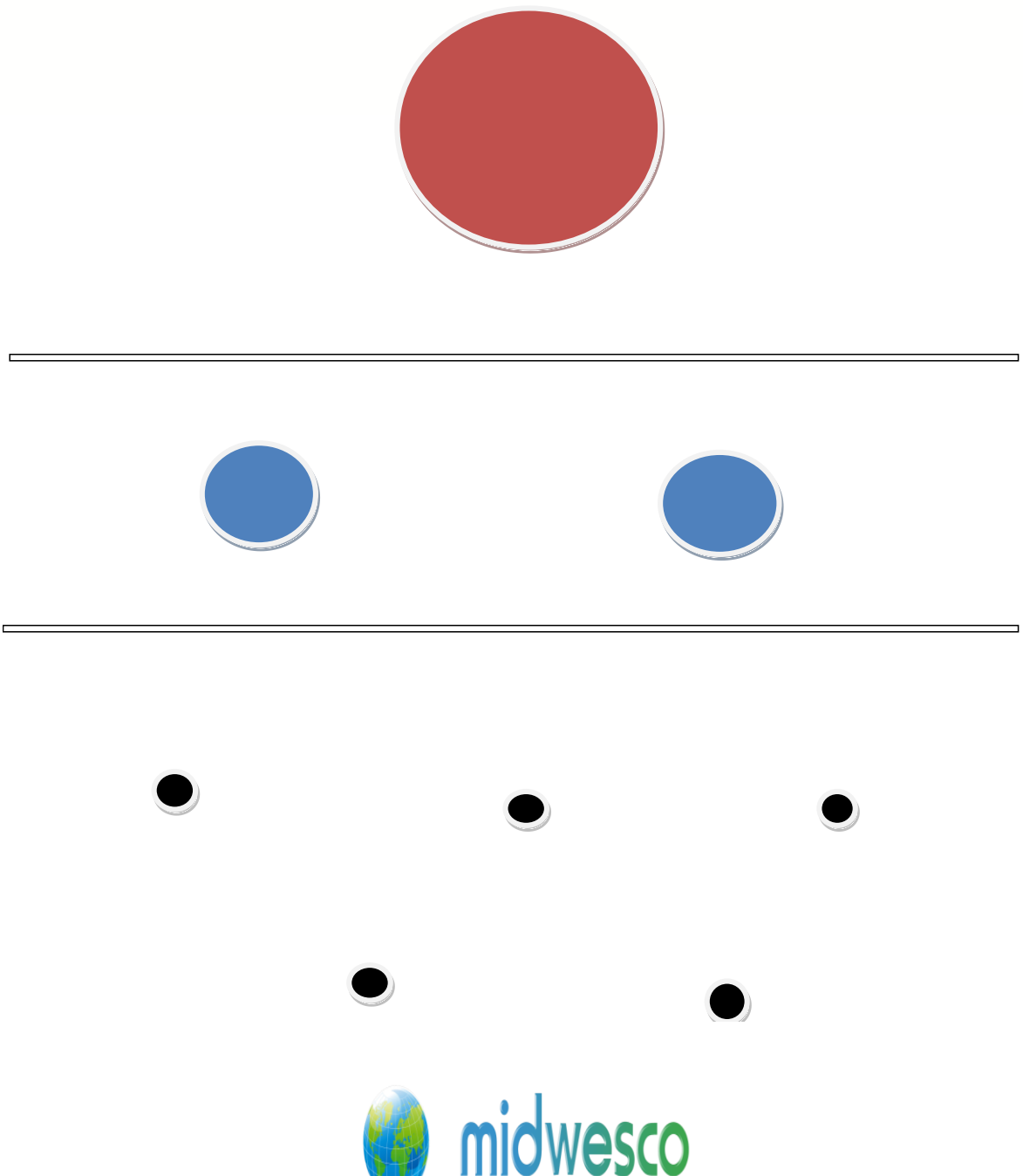
IS A MEMBRANE

IS A MEMBRANE

NOT

HIGH-EFFICIENCY ePTFE MEMBRANE VS HIGH-FLOW ePTFE MEMBRANE

PERMEABILITY
3 FEET PER MINUTE



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KEY FACTORS

- TEMPERATURE
- CHEMISTRY

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CONTRIBUTING FACTORS

- SIZE
- LOADING
- MOISTURE
- ABRASION

DESIRED RESULTS

- EFFICIENCY
- EFFICIENCY
- EFFICIENCY

EMISSION STANDARDS

PM 2.5

IS

THE

STANDARD.

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LOOKING AHEAD TO 2020

ADVANCED COMBUSTION BURNER

AND

FABRIC FILTER WITH HIGH-EFFICIENCY ePTFE MEMBRANE BAGS

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OR

PLEATED

PLEATED AND CONDENSIBLES

SOx -- Hg

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ATTAINMENT

COLLECTOR OPERATION PARAMETERS

IT IS

A

WHOLE

NEW

WORLD

RECORDKEEPING AND REPORTING CONSEQUENCES

PLAN NOW

START EARLY!

THANK YOU

I appreciate the opportunity to present this material to you. I acknowledge that these are optimum operating conditions, which you may not be able to attain. However, the closer you can come to these parameters, the better we see collectors work. This is true regardless if they are filter bags or pleated bags with or without membrane. If you have any questions, you can reach me at:

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