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CONDENSATE POLISHING CAN IT HELP?

ACC USERS CONFERENCE
SAN FRANCISCO
SEPTEMBER 19-21, 2011



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CHEMICAL TREATMENT

STEAM GENERATOR

OPERATING MODE

CONDENSER

ALLOYS USED IN CONSTRUCTION

WHAT DETERMINES NEED?



IS FAC AND PLATEOUT SHORTENING SG TUBE LIFE
AND STEAM TURBINE BLADE LIFE?
ARE ACC LEAKS CAUSING HIGH IRON LOAD?

WHAT DETERMINES
NEED?



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CONDENSATE TREATMENT OPTIONS

FACTORS	FILTERS ONLY	DEEP RESIN BED	FILTER + DEEP BED	PRECOAT
Nuclear Unit- PWR				
Nuclear Unit - BWR				
OTSG				
OT Chemistry				
Seawater cooling				
Contamination with high COC cooling water				
AVT chemistry				
Air cooled condenser				
Cycling unit				
Combined cycle with steam cation conductivity limit				



Prevalent Technology



Alternatives



WHICH PLANTS NEED CONDENSATE POLISHING ?

- OTSG
- ACC (WITH LEAKS)
- CYCLING PLANTS



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CAN IT BE JUSTIFIED IF

- ◉ FASTER STARTUPS CAN BE ACHIEVED ?
- ◉ LESSEN NEED FOR BLOWDOWN?
- ◉ PRESERVE SG AND STEAM TURBINE ?



SELECTION

HIGH
SUSPENDED
SOLIDS

- FILTER
- POWDEX PAK

TDS

- DEEP BED
- POWDEX PAK

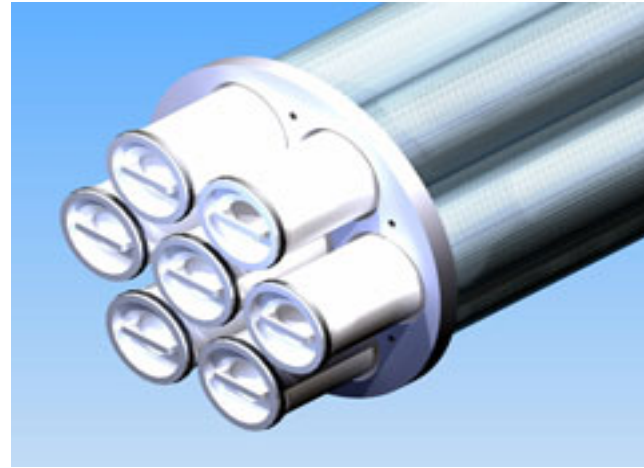


Graver Technologies' AEGIS TurboGuard





PREFILTER TURBOGUARD



- UP TO 8000 GPM PER HOUSING
- EASY CHANGEOUT
- CRUD Capture



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DEEP BED POLISHING

TO REMOVE
DISSOLVED SOLIDS



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POWDEX MINIPAK

Two 36" x 72" Vessels
Each contain 52 2" x 50" precoat Septa
Provides both particulate and IEX
Protection (N/H/OH/MORPHOLINE)
Skid mounted
PLC controlled



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