10/9/00

Bill Kuen - GE Dense Pack
turbine modification

Bill Ray - Prod line manager Atlanta

① Advanced design steam path - fixed stages
~early 90's to in op. " dia

② Dense pack (2 yrs ago) - new rotor
smaller dia
add staging
full arc admission
No nozzle box

opt vortex stage design
bucket tip leakage controls
optimized stage design
SPE protection

Dense pak -
- decrease rotor dia (steam path)
- opt # stages

Tip seals - vernier seals

Losses

Nozz rough	10%	
" repair	15%	HP 90-93
shaft packleak	10%	IP 93-95
Radial SS leak	30%	
SPE	10%	
Dep		0.25%/yr

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Situations

- Zero ht input - higher RH dist
- Constant flow model
- Increased flow available

Condition based maint

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