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B&W Conversion Services, LLC



Piketon

Three lines
20,000 cylinders

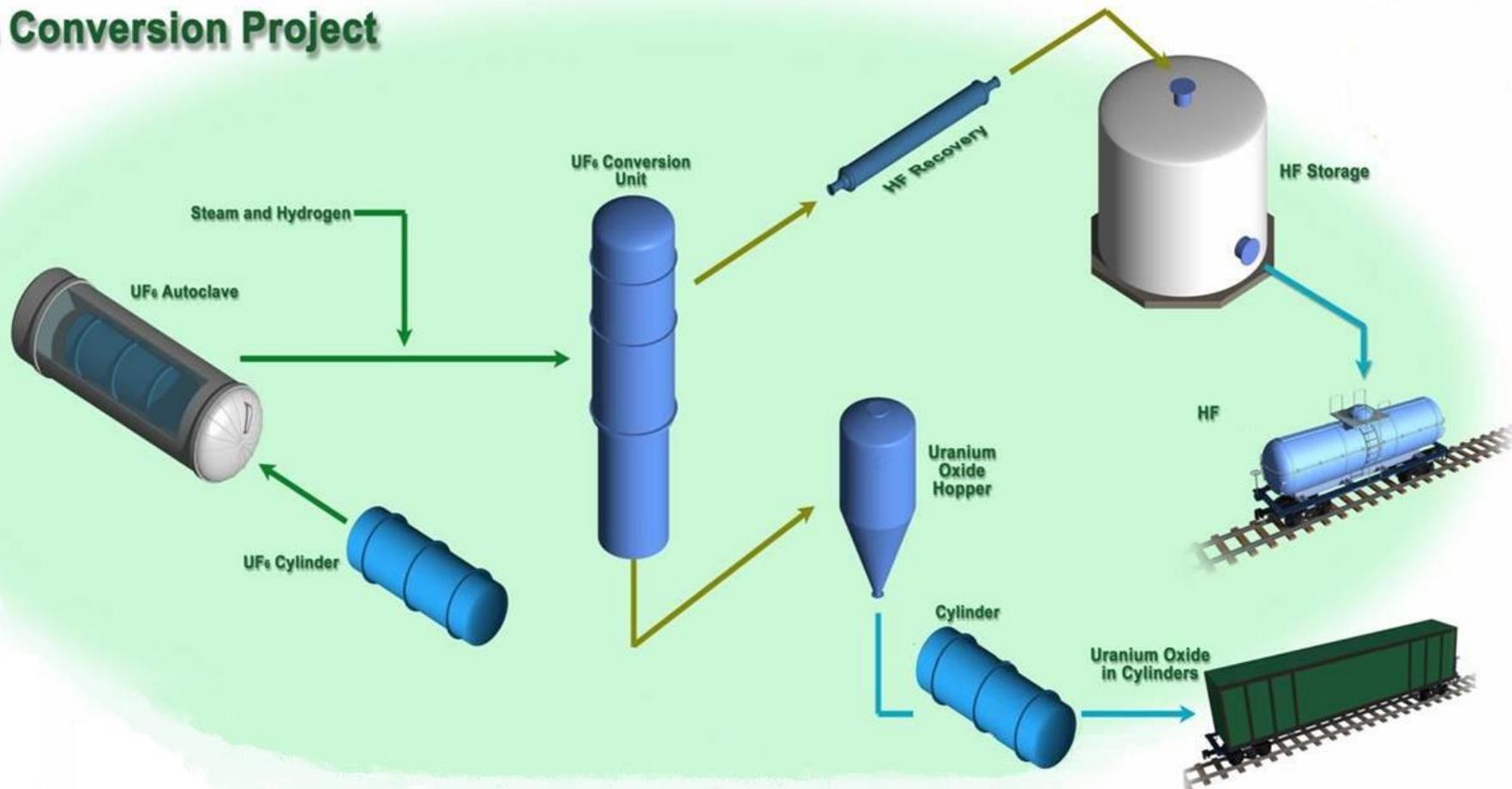
800,000 metric tons
in storage at both sites



Paducah

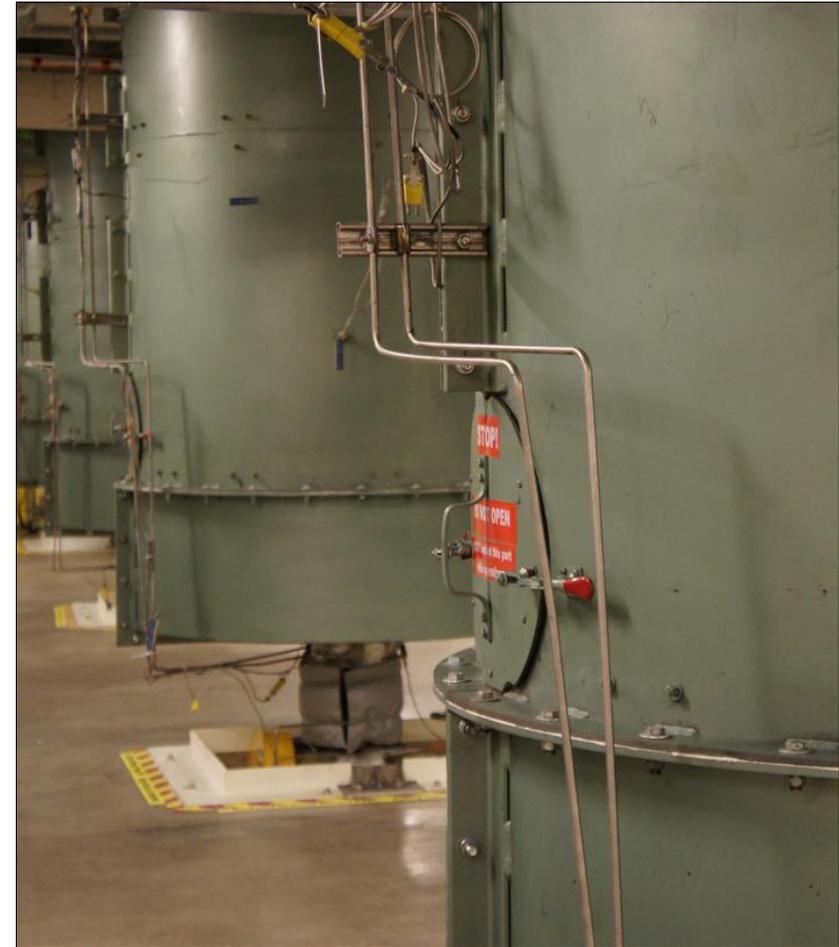
Four lines
45,000 cylinders

DUF₆ Conversion Project



FY2013 Production Results

- 13,579 metric tons of DUF₆ processed
- 2,279,000 gallons of Hydrofluoric Acid safely shipped offsite
- Increased availability by approximately 150% from 2012
- Increased process throughput by 38% from 2012
- More than doubled FY2012 production



Conversion of DUF₆:

2011	270 metric tons
2012	6,170 metric tons
2013	<u>13,579</u> metric tons
Total	20,019 metric tons



HF safely shipped:

2011 21,000 gallons

2012 1,501,000 gallons

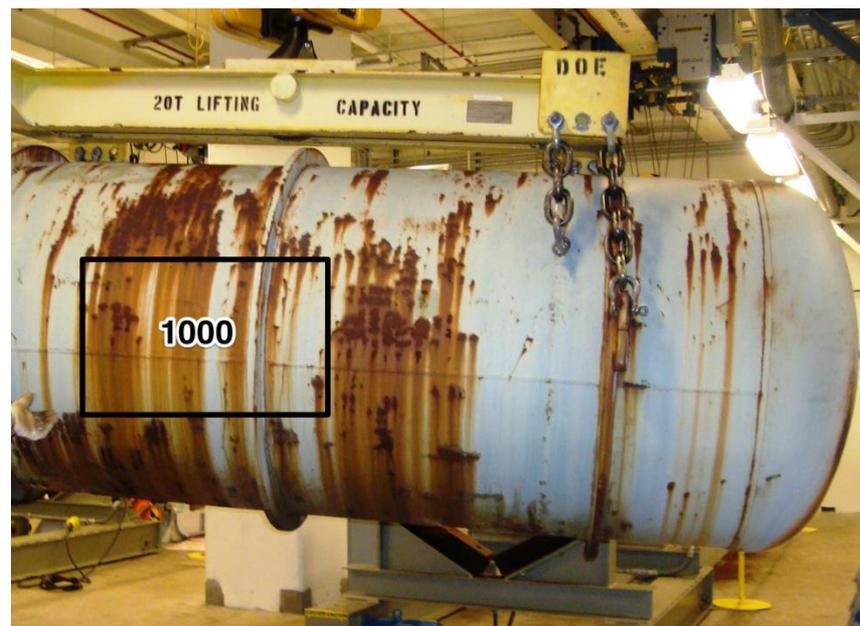
2013 2,279,000 gallons

Total 3,801,000 gallons

2014 target: 4,300,000 gallons



Moving from start-up to full operations



Each plant has processed 1,000 cylinders as of January 2014

**Increasing both throughput and availability
at both plants**



Increasing availability by:

- Adding off-gas blowers for redundancy
- Improving support system operation
 - H2 generator system
 - Deionized water system
 - Plant chilled water system
- Correcting material compatibility conditions
 - Valve position indicators
 - Rotary valve rotors
 - Distributor plates
 - Off-gas blowers



Increasing availability:

- Providing isolation capability to support maintenance
 - Off-gas isolation valves
 - Boiler isolation valves
 - HF storage tank pump isolation

- Application of lessons learned and increased operating experience



Increasing throughput by:

- Addressing powder discharge limitations
- Optimizing fluidizing bed process kinetics
- Improving cylinder heating, feed-out, and heeling



Commissioning challenges:

- Integrated facility testing
- Immature programs
- Scale-up/first-of-a-kind process
- Multiple separate, but dependent, operating units
- Specialty parts/foreign suppliers
- Staff training



Increasing effectiveness of business processes:

- Updating baseline and aligning contract this year
- Working toward certified procurement system

