

Combined Heating, Power, and Cooling at a VA Hospital

Jesse Brown VA Medical Center - Chicago, IL

Ray Palmer

Portfolio Manager

*Office of Asset Enterprise
Management*

Department of Veterans Affairs



Changing VA Environment



Behind the
Wheel:
Management
Focus

- Medical Care Has Changed, from
 - In-patient based care, to
 - Patient-centered care
- National Demographics
 - Veterans moved to South, West, and Southwest
 - City to suburbs
- VA Infrastructure Had Not Kept Up (as of 2004)



VA Real Property Assets



Behind the
Wheel:
Management
Focus

- 4,900 Buildings on 15,000+ Acres
- Average Facility Age Exceeds 50 Years
- 8.57 Million Square Feet of Vacant Space
 - Costing \$3.4 billion per year to maintain



Behind the
Wheel:
Management
Focus

- Capital Asset Realignment for Enhanced Services (CARES)
 - Identifying demand for VA care
 - Projecting future appropriate size, function, and location of facilities
 - CARES pilot determined that one Chicago area VAMC would be closed and services shifted to other nearby facilities
 - Westside to grow from this shift



Great Lakes Realignment



**Behind the
Wheel:
Management
Focus**





**Behind the
Wheel:
Management
Focus**

- Jesse Brown VA Medical Center (Chicago Westside)
 - 205 beds – 6,875 inpatient admissions (FY '05)
 - 540,000 outpatient visits (FY '05)





VA Project Goals



Behind the
Wheel:
Management
Focus

- Development and Construction of New Energy Center to Supply VAMC and VBA Energy Needs
- Use of Private Project Financing
- Reduction in the Cost of Energy
- Provision of Operations and Maintenance of Equipment
- Increase in VAMC Energy Efficiency (Including ESI)



Enhanced-Use Lease



Behind the
Wheel:
Management
Focus

- VA Outleases One Acre of Land and Underutilized Building
- 35-Year Lease
- No Termination for Convenience
- At End of Lease Term, Land and Improvements Revert to VA



Energy Center Building



**Behind the
Wheel:
Management
Focus**





Energy Center Construction



**Behind the
Wheel:
Management
Focus**





Absorption Chiller Delivery



**Behind the
Wheel:
Management
Focus**





New Energy Center

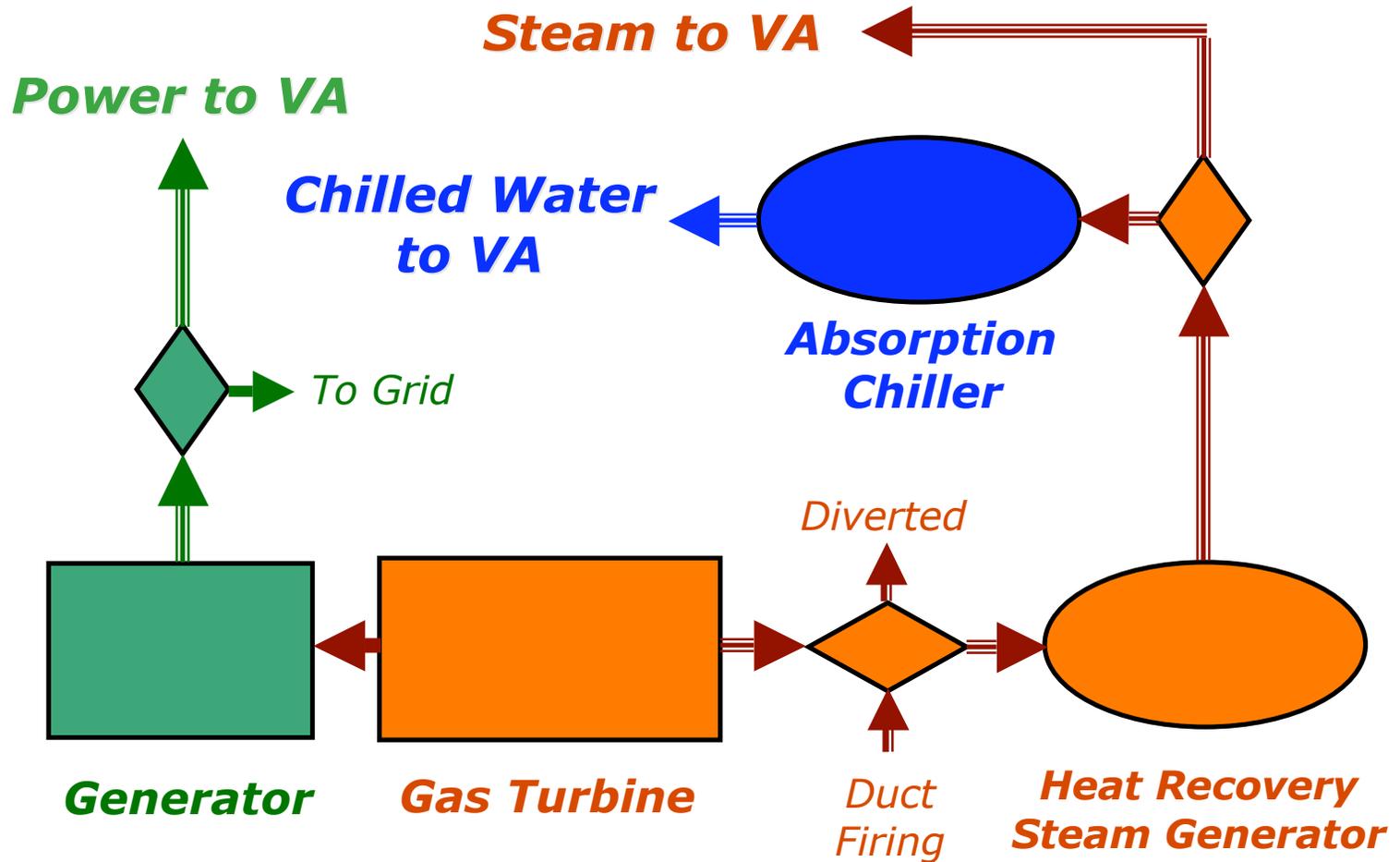


**Behind the
Wheel:
Management
Focus**





Behind the
Wheel:
Management
Focus





Turbine-Generator Set

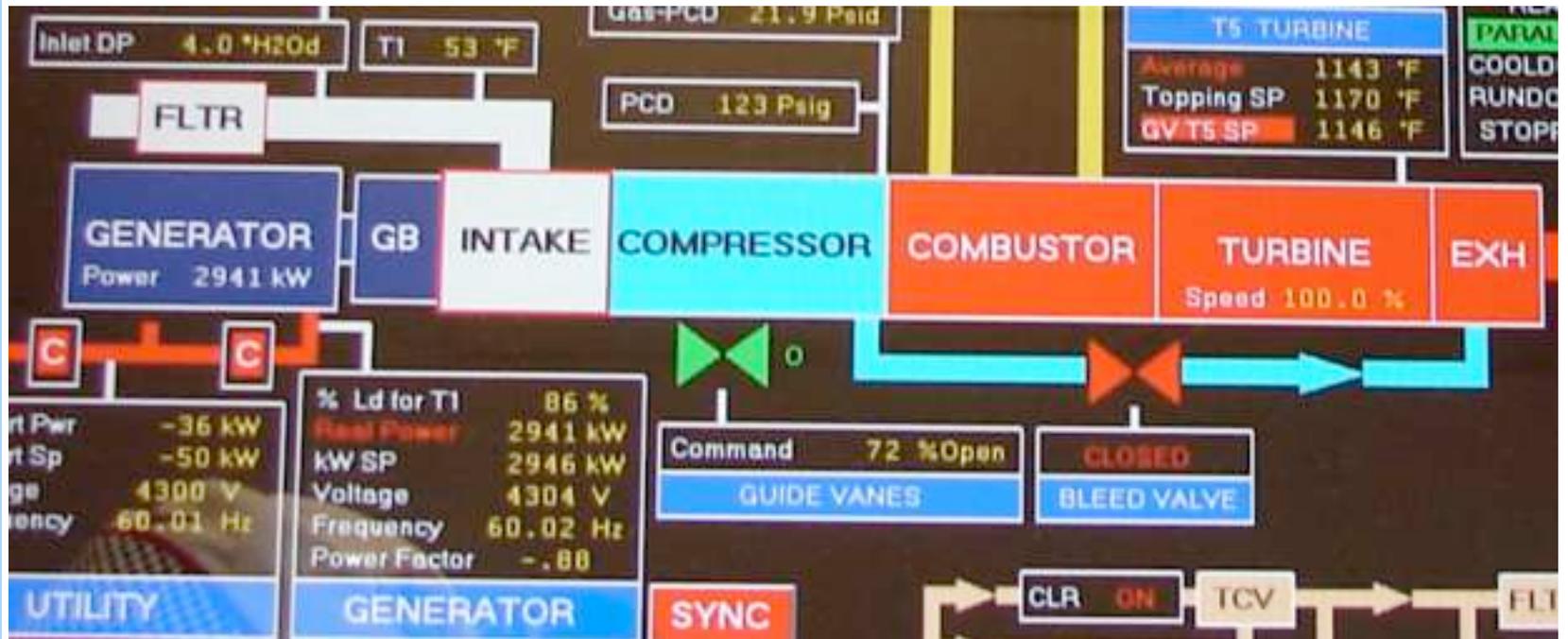


**Behind the
Wheel:
Management
Focus**





Behind the Wheel:
Management Focus



Diverter and Duct Firing



Behind the
Wheel:
Management
Focus





HRSG – 2 Floor View



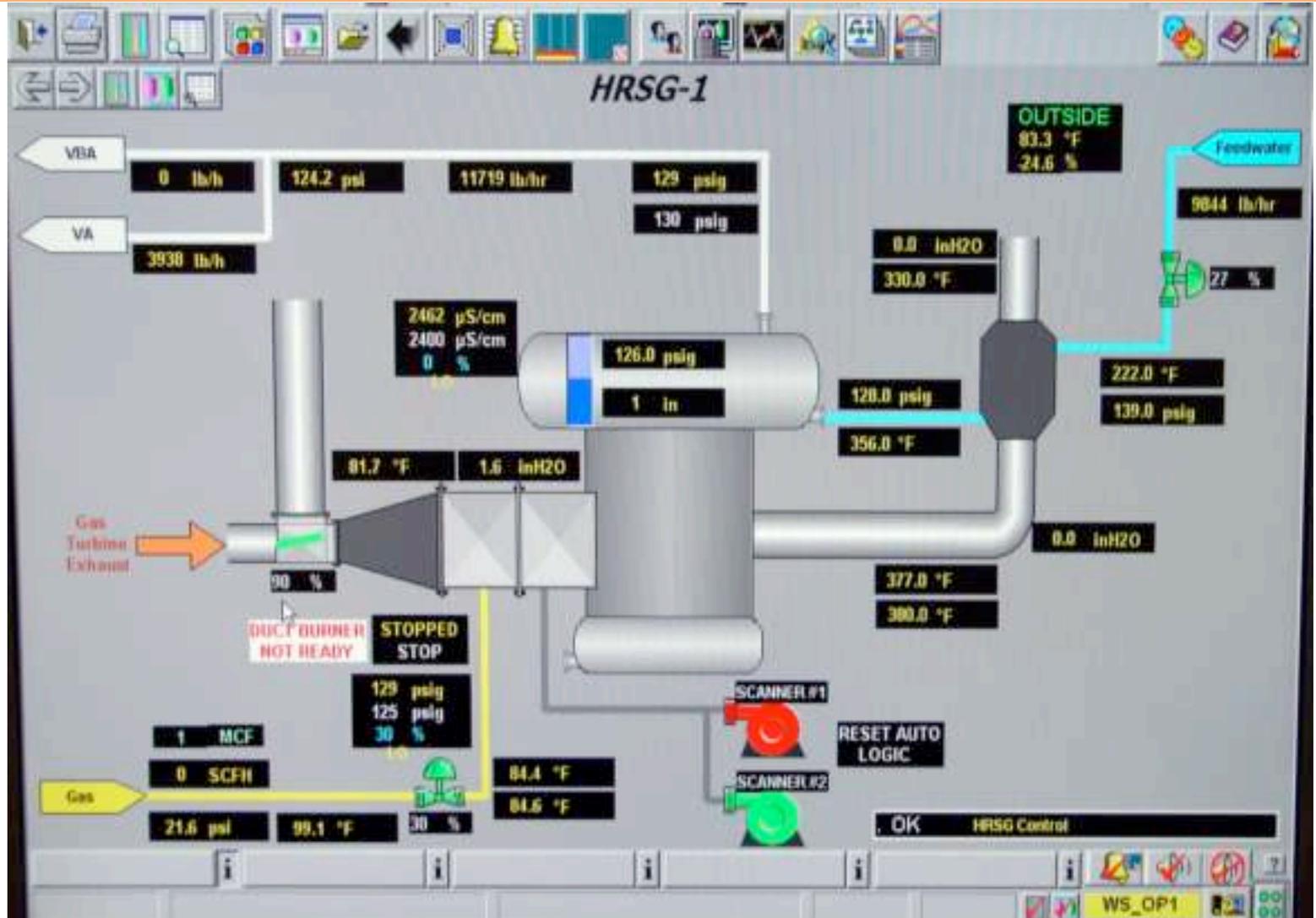
**Behind the
Wheel:
Management
Focus**



HRSG Operation



Behind the Wheel:
Management Focus



Absorption Chiller



**Behind the
Wheel:
Management
Focus**



Chilled Water Lines



**Behind the
Wheel:
Management
Focus**





Behind the
Wheel:
Management
Focus

- Savings to VA
 - \$32.7 million in discounted non-recurring expenses
 - Capital cost avoidance of \$12.5 million
- Reliable Energy
 - 100% backup
 - Independence from older steam loop



Behind the
Wheel:
Management
Focus

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