

IDEA 2015 Inspiring the Next Generation

6B Symposium: Workforce Management, Recruiting, Training + Retention

Princeton University's Apprenticeship Program



Thomas A. Nyquist, PE
Executive Director

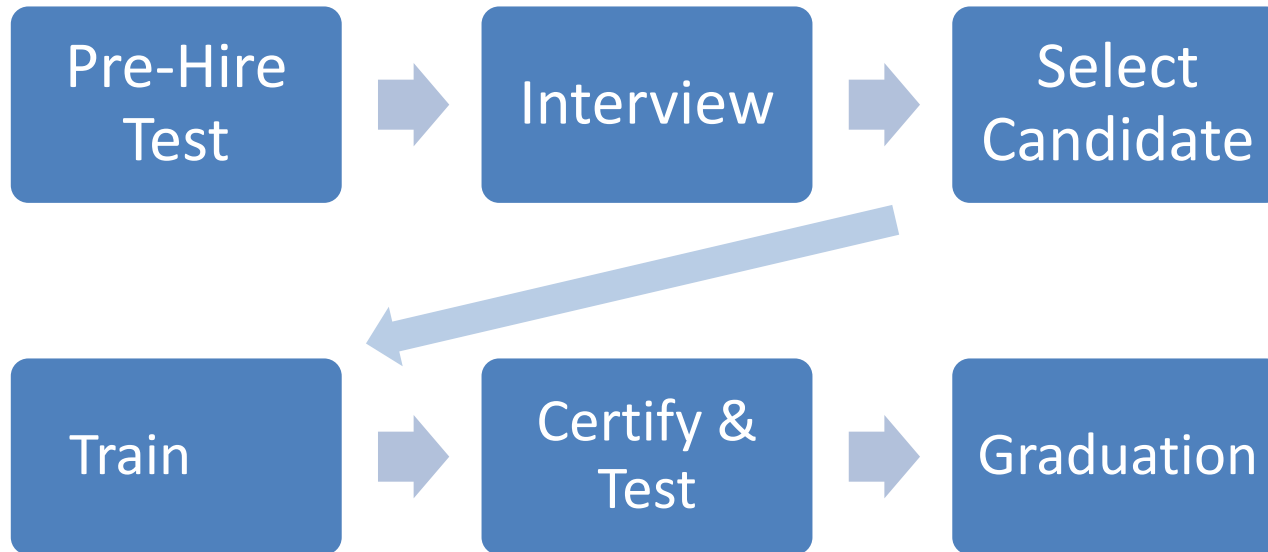


Plant Staff

- 3 management employees
- 24 union operators/maintenance technicians
 - 2 Lead Engineers
 - 5 Senior Shift Operators (SSO)
 - 2 Relief Senior Shift Operators (RSSO)
 - 2 Instrument and control technicians (I&C)
 - 12 Utility Plant Engineers (UPE)
 - Currently 1 apprentice
- UPE's operate AND maintain the plant



Hiring and Training Process

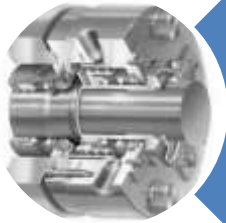


Pre-Hire Testing

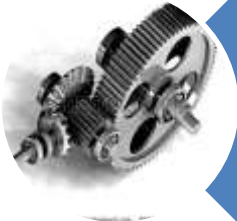
Goal – Establish a small pool of candidates with potential to succeed



Test of Adult Basic Education



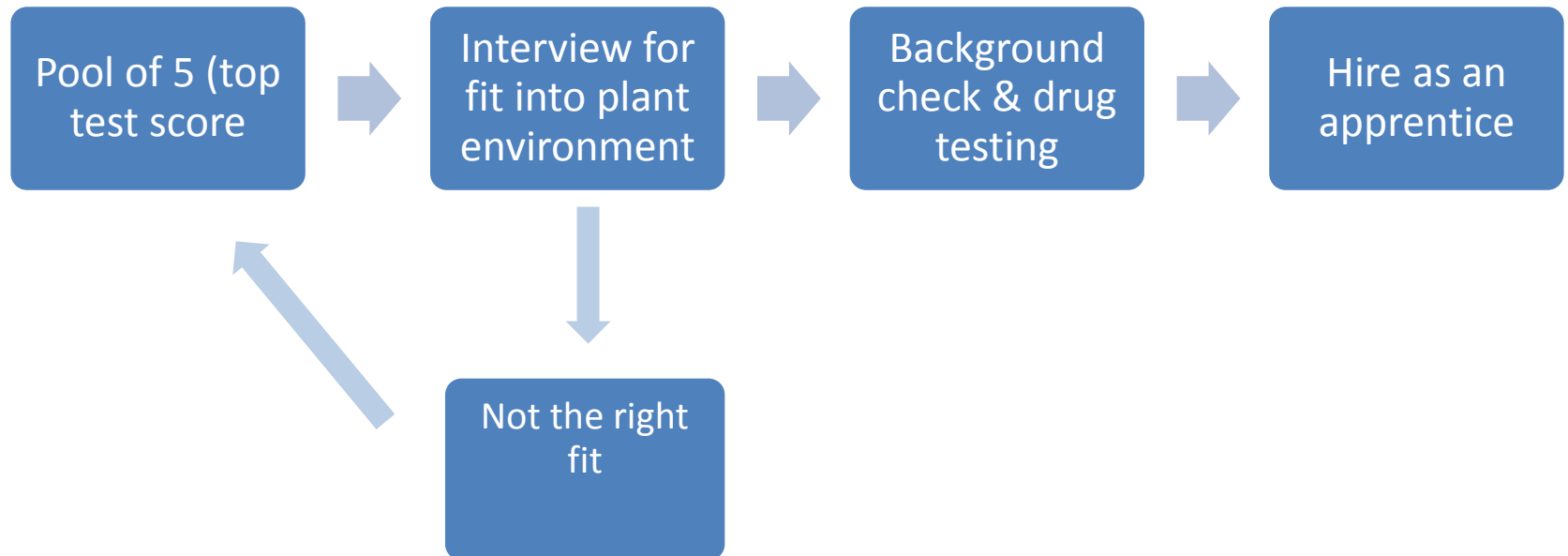
Minn. Paper Form Board Test



Ramsey Mechanical Aptitude Test



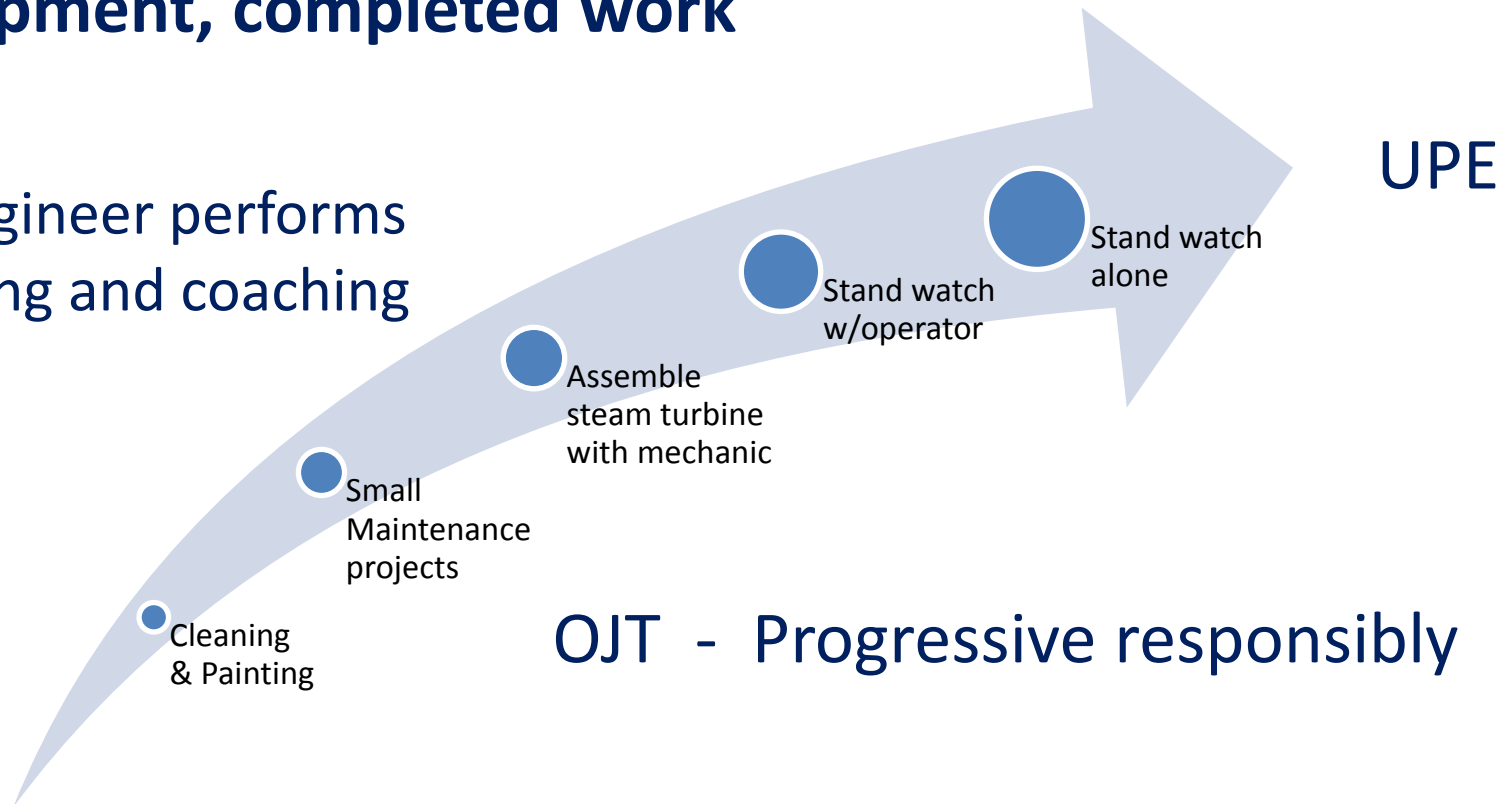
Candidate Interview and Selection



Training – In Plant

Goals – work ethic, responsibility, core technical knowledge of plant and equipment, completed work

Chief engineer performs counseling and coaching



Training – In plant

Environmental Health and Safety (EHS)

PPE, Confined space, AED, first aid, fall protection, hearing safety, emergency procedures, fork lift, skyjack, asbestos awareness

Vendor

- Water Treatment
- Equipment
- Consulting Engineers



Training – Community College

- 440 hours of classes
- 9 month of the year for four years
- Work during the day – classes at night
- Typical courses
 - Basic math
 - Refrigeration
 - Blueprint reading
 - Electrical and controls

Certifications & Testing

- Steam Certifications - Black Seal, Blue Seal, Red Seal
- Refrigeration Certification - Blue Seal
- One-line diagram of every system in the plant – approved by the Lead Engineers
- Assistant Chief Engineer tests the apprentice to ensure he/she understands how to operate the plant.

Graduation

- Journeyman certificate for Operating Engineer Apprentice Program from the Federal Government Office of Labor.
- Promoted to Utility Plant Engineer
- Fully qualified to stand watch
- All plant staff Celebration Party



Final Remarks

- Aptitude testing
- Labor Pool
- Duration
- Plant Staff
- Effectiveness

