Construction Readiness Update

Commission Briefing - Oct. 22, 2008

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Fluor Current Nuclear Activities

◆ **EPC contractor for Toshiba on STP 3&4**

◆ **Duke Oconee Tornado Barrier Capital Project**

◆ **EPC contractor for USEC Uranium Enrichment Plant**

◆ **Savannah River Site M&O Contract**
  – Other DOE clean-up activities

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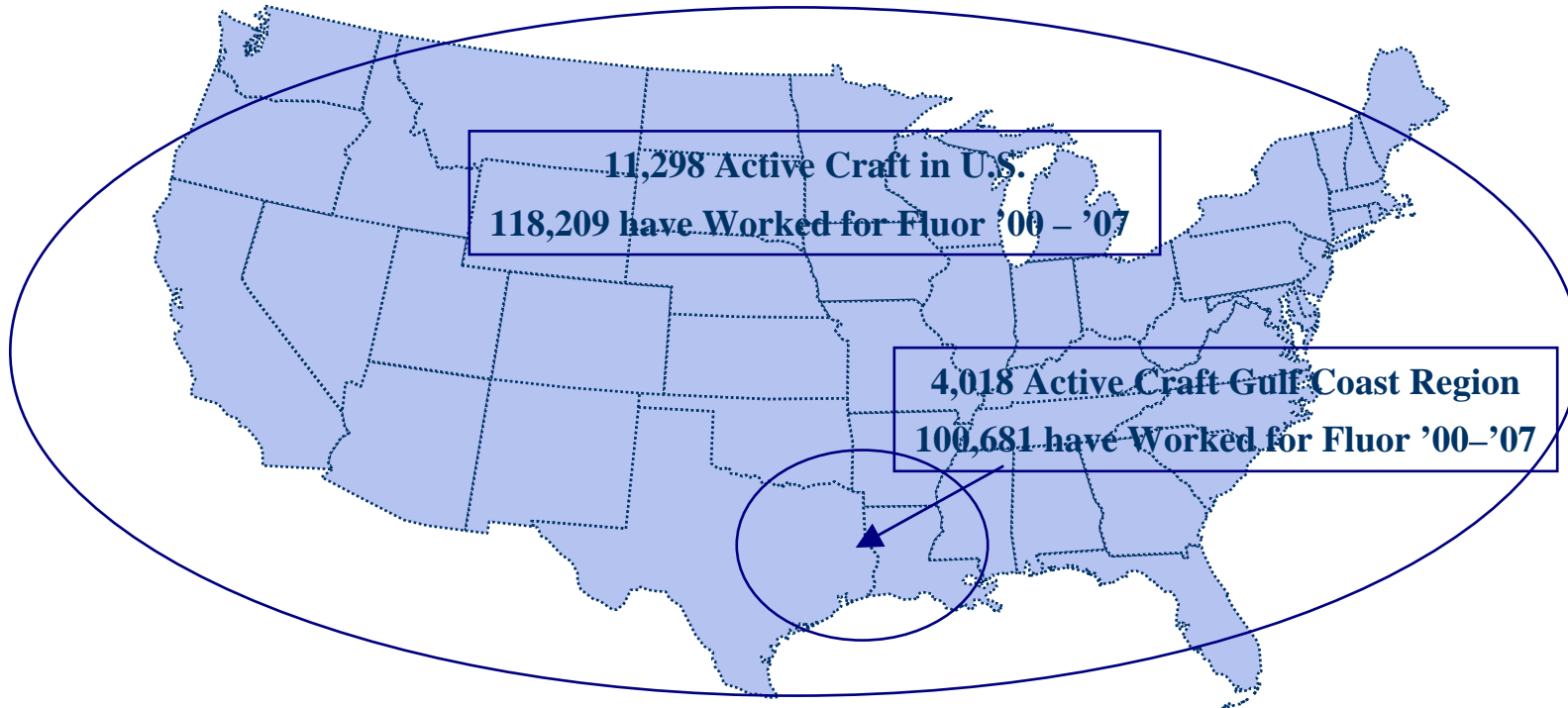# Workforce Issues - Texas

◆ **Labor challenges well understood:**

– Significant shortage of skilled craft labor currently, and projected (over 30,000 construction workers needed)

- Area undergoing a significant construction boom
- Current plans for many owners were influenced by hurricane Ike (and its predecessors)
- Houston area industrial construction market dominated by open shop craft

– Main Craft Staffing Challenges:

- Where we will get craft
- How we will train them
- How we will retain them

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Workforce Solutions

◆ **Present workforce solution plan for STP 3&4 is a combination of open shop and union construction**

◆ **Reducing on-site craft needs through modularization**
  – Many of today's reactor designs employ significant modularization
    • Including the Toshiba ABWR's we will install for STP 3&4
  – Fluor has been extensively using modularization for over 30 years and has done so on over 1,000 projects globally

◆ **Attracting, training, and retaining current and new craft workers**
  – We must attract, train and employ new craft now
    • OJT & continued development key for nuclear construction skills

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Recent U.S. Craft Experience

11,298 Active Craft in U.S.

118,209 have Worked for Fluor '00 – '07

4,018 Active Craft Gulf Coast Region

100,681 have Worked for Fluor '00–'07

Fluor executes projects in open shop and union environments.

Craft Workforce Development Training Resources

◆ **Training, Skills Assessment and Certification**
- NCCER Curriculum utilized
- Craft Online Skills Assessments
- Craft Performance Verifications
- Field Supervisor Development

◆ **Benefits of Fluor Craft Training Programs**
- NCCER Curriculum utilized
- Variable delivery platform
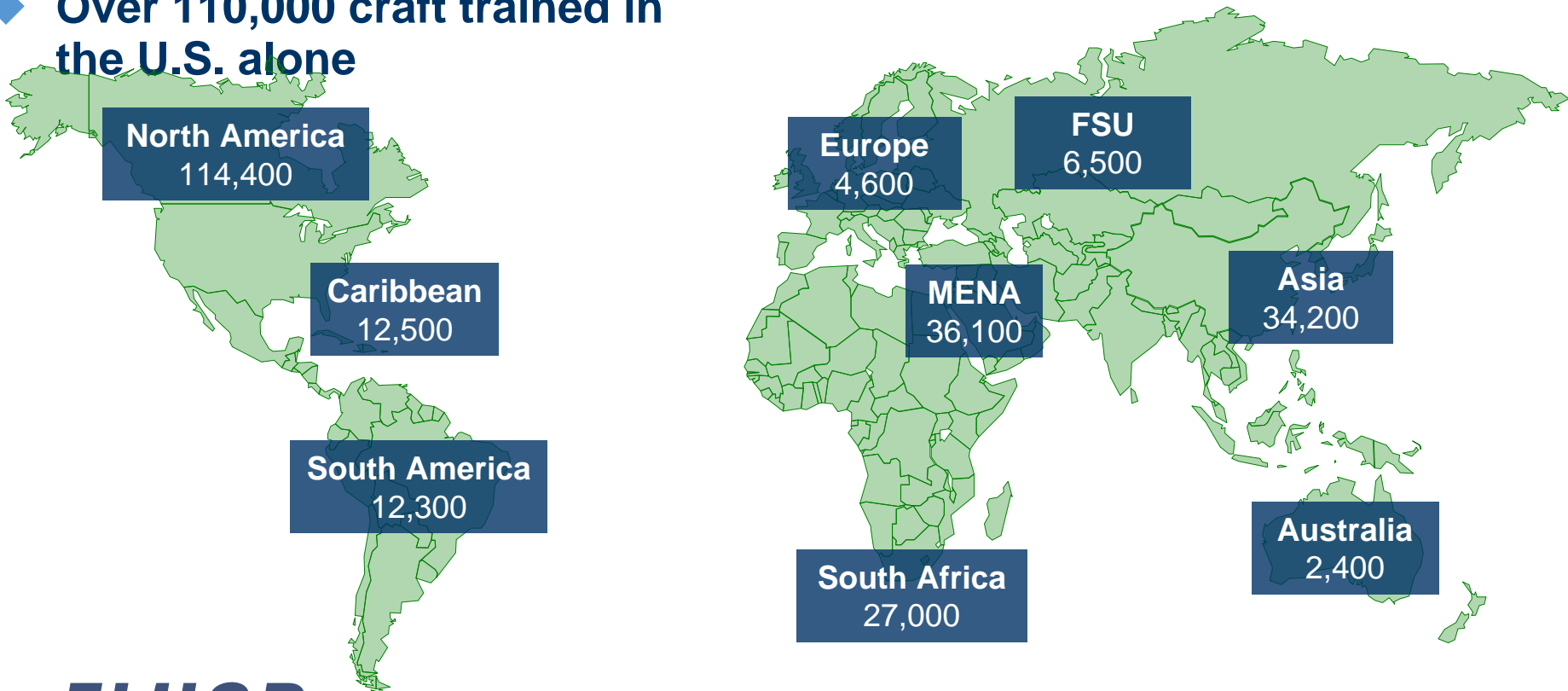- Individually paced

◆ **Training Focus**
- Welder pre-employment entry and upgrade training
  - Tech schools partnerships
  - Fluor centers (Houston, Job sites, Louisiana)
- Target training on developing Fluor advanced helper-level employees
  - Mid to top level helpers
  - Not training just for NCCER certification
- Implement placement and retention
  - 100% Hiring commitment
  - Formally track and manage

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Meeting the Growth in Demand for Skilled Labor
Past 30 Years, Fluor has Trained 250,000 Craft

◆ **Global experience transferring knowledge, skills and abilities**

◆ **Over 110,000 craft trained in the U.S. alone**

North America 114,400

Caribbean 12,500

South America 12,300

Europe 4,600

FSU 6,500

MENA 36,100

Asia 34,200

Australia 2,400

South Africa 27,000

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STP Labor Action Plan

◆ **Key elements underway or to be deployed:**

– Early identification of the problems and potential solutions

– Developing public private partnership

– Identifying the target audience

– Establishing the paths and methods to best reach the target audience

– Identifying the most effective incentives to attract and retain your target audience

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STP Labor Action Plan, cont'd…

◆ Attracting potentially interested students
- Hired local educator / training coordinator
- Canvassing each high school w/in 100 miles (each 6 months for 3 years)
- Supplement through regular job fairs/advertising

◆ Arranging training infrastructure and coursework
- Develop a local training center
- Partner with local colleges to conduct training
- Fund through public/private partnership

◆ Assuring continued, local development opportunities
- Work with others to ensure local jobs (OJT) to graduates
  - Fluor's Oak Grove & Port Arthur projects
  - Bechtel's Sandow & Port Arthur projects
  - STP outage and O&M work
- Offer advanced training through Fluor's craft development program
- Regularly communicate with all graduates throughout licensing period

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Strategic Partnerships – Learning from Japan

◆ **There are various forums on the STP 3&4 Project for exchanging lessons learned. An example of one in particular that has been extremely effective:**

    – The STP Construction Team Meeting:

- Led by Fluor (5th one just completed)
- Participants from:
  - STPNOC
  - Toshiba/TANE
  - IHI
  - Kajima
  - Sargent & Lundy
- An intense, collaborative process, focusing on:
  - Construction techniques
  - Construction sequencing
  - ITAAC
  - Quality
  - Constructability
  - Logistics
  - Modularization
  - Etc.

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