It’s Not The Steel, It’s the Paper!

Louisiana Oil Berm Construction

2010 (and 2011)
Horrible Accident

- 11 men lost lives
- ?? Barrels a day
- Initial reports vague
- Response vague
News Travels Fast, Facts Not So Fast

- CNN becomes lead on information
- Hysteria and hyperbole are rule
- Katrina effect
- Billy Nungesser
- Gov Jindal
- President Obama
Industry Response

- Concern for current projects in area
- Idle equipment offered as assistance
- Skimmers
- Dispersants
Berm Plan

- Old State Plan
- More Damage Than Benefit
- Foreign marketing efforts distraction
- Concept gained momentum as spill continued
Berm Plan

- Ancil Taylor, Bean Consultant
- Pressure on BP building, so what if??
- Steel Availability
  - Idle
  - Otherwise available
- Paper Availability
  - Permits
  - Engineering
  - Contracts
- Meet With Corps, USCG, BP
Berm Plan

- Cap Failed
- USCG/BP State Funding Next Day
- Corps permits to State
- Shaw hired
- Shaw meets with industry
- Corps protocol for dredges
Start Up Challenges

Philosophical

- No negative thoughts
- We can do this
- This is what we do
- SAFETY
Start Up Challenges

- No time for planning and preparation
- Minimal plans and specifications
- Difficult Communications
- Long transport distances / Exposed Conditions
- Small unit operations in remote locations (surveys, pipeline install)
- Large workforce- influx of subcontractors
- Pressure to show progress and meet milestones
Start Up Challenges

- Weeks Clamshell first dredge deployed – same day – cancelled
- First Dredge in Site TSHD “Stuyvesant”
- CSD California next on site
Timeline

- BP Deepwater Horizon Explosion 20 Apr
- State pushes for Berm Permits May
- Shaw signs Contract with State of LA 8 Jun
- Shaw Meets with Contractors 9 Jun
- Stuyvesant and California on Site 11-14 Jun
- NTP for Alaska, Texas, Liberty, Terrapin Padre, Spider Barge, Scows 15 Jun
- Liberty Island starts dredging 19 Jun
- Terrapin Island starts 23 Jun
- Padre Island starts 27 Jun
- Alaska departs NJ 29 Jun
- Texas departs Jax 8 Jul
- Complete April 2011
Equipment Crews, Staff,

State / Shaw / GLDD Focus on Production

Incidents

Safety Intervention Update
An Incident Injury Free Workplace

It’s about caring for your coworkers

It’s about speaking up when you see something unsafe

It’s about planning activities and asking questions

It’s changing from complying with safety practices to adopting them as the standard

It’s about taking responsibility for your own safety and the safety of those who work with you

It’s about acknowledging your importance to the company

It’s about choosing to follow safety rules because you want to not have to
Personal Injury Incidence Rates
Calendar Years 2005 through 2010
(@ 9/30/10)

Incidence Rate = (# of injuries & illnesses ÷ total hours worked) × 200,000
Thinking on Our Feet

- Innovation in methodology
- Innovation in technology
- SAFETY
- Communication - Corps starts weekly meetings
- Production challenges
  Variable material, how measure progress?
BARRIER BERM PROJECT

(File name: Overall Berm)
### Barrier Berm Progress Through October 25, 2010

<table>
<thead>
<tr>
<th>Berm ID</th>
<th>Linear Foot Under Construction</th>
<th>Linear Foot to Elevation (+6 foot)</th>
<th>35E Handling Site (yd³)</th>
<th>25-5 Handling Site (yd³)</th>
<th>Hewes Point (yd³)</th>
<th>RH-2 Handling Site (yd³)</th>
<th>RH-2</th>
<th>St. Bernard Shoals (yd³)</th>
<th>Berm (yd³)</th>
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Material from Hewes Point directly to Berm
EASTERN BARRIER BERM DETAIL

COMPLIANCE PACKETS

APPROVED

1. First 2,000 LF of Reach E4 06/12/10
2. Borrow Area 6A 06/13/10
3. Borrow Area CH-B 06/28/10
4. First 7,000 LF of Reach E4 06/28/10
5. Re-Handling Area RH-2 07/02/10
6. Borrow Area HD-A 07/02/10
7. Borrow Area CH-A 07/02/10
8. Borrow Area HD-A Revised 07/09/10
9. Pipeline Corridor – RH-2 to E4 07/09/10
10. Re-Handling Area RH-1 07/16/10
11. Re-Handling Area RH-3 07/16/10
12. Pipeline Corridor – RH-3 07/22/10
13. First 20,000 LF of Reach E4 08/02/10
14. 4,800 LF of Reach E4 South 08/10/10
15. Remaining E4-Sections 09/20/10
16. Borrow Area 6A Backfill/Restoration Activities 10/19/10

PENDING

1. E-4 Permit Modification 10/15/10

*Arrows/lines depict material transfer process; not intended to represent actual navigation or pipeline corridor routes.
WESTERN BARRIER BERM DETAIL

COMPLIANCE PACKETS

1. Pass-A-Loutré HDDA  Pre-Approved
2. Cubit’s Gap       Pre-Approved
3. Re-Handling Area 35E  06/14/10
4. Pipeline Corridor – 35E to W9  07/09/10
5. W9 Permit Modification  07/15/10
6. Re-Handling Area 25-5  07/16/10
7. 25-5 Pipeline 1 West Section  07/24/10
8. All 25-5 Pipelines  08/02/10
9. W10 Permit Modification  08/17/10
10. W10 Barrier BERM Footprint  08/31/10
11. 25-5 Alternate Pipeline Corridor  09/07/10
12. Pipeline Corridors – 35E to W8  10/01/10
13. W8 BERM Alignment  10/07/10

*Arrows/lines depict material transfer process; not intended to represent actual navigation or pipeline corridor routes.
CURVE BALLS

- After everything geared up, only two weeks at full capacity
- Turtle issues shut down hoppers
- SAFETY
- Lack of commitment makes tough to plan.
Lessons learned. Take aways?

- We can do this. This is what we do.
- What an opportunity for engineers/scientists
- Good material in Gulf/River
- Equipment versatility is important
- Engineering flexibility is important
- Need team effort owner, regulators,& dredgers
- Need progressive thinking regulators
Lessons learned. GLDD look in the mirror

- GL/Dredging industry as part of process
- Clients and Policy Makers need our input
- We need to work on image of arrogant pirates
- Evaluate how clients get our attention
- We need to be mentors to our clients
Lessons learned. Take aways?

- Reporters don’t care about facts
- Real experts aren’t relevant
- Short term impacts?
- Long term impacts?
- Gulf shorelines need protection, study, and action.
- US Shorelines need protection, study, and action.

Engineers can be heroes too!!
It’s Not The Steel, It’s the Paper!

WE CAN DO THIS!