‘Idle Iron’ versus ‘Rigs to Reefs’: Surviving Conflicting Policy Mandates in the Gulf of Mexico

by
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About 3500 Platforms in Gulf
(85% in Less Than 60 Meter water Depth)
Rig Installations and Removals 1942 to 2012

Special acknowledgement to the National Ocean Council And Director Deerin Babb-Brott for assistance in gathering data from federal agencies for following graphics

Purpose: Idle Iron - idle Opportunities Workshop
Description: Locations of platforms in the Gulf of Mexico installed between 1942 to 1977 and removed between 1973 to 1977.

Coordinate System: WGS84
Projection: Geographic
Print Date: 9/11/2012

Notes: Bathymetric contours represent depth in meters. Data sources are denoted in parentheses. Locations are approximate.
Platform Installations and Removals, 1992

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Offshore Platforms and Red Snapper
Red Snapper Occurrences, Northern Gulf of Mexico

Red Snapper Occurrence Sample Sites (NOAA)
- Positive Occurrence
- No Occurrence
- Administrative Boundary (BOEM)
- Federal/State Boundary (BOEM)
- EEZ (NOAA)
- Bathymetric Contours (USGS)

Purpose: Idle Iron - Idle Opportunities Workshop
Description: This map shows fishery-independent Red Snapper occurrences and non-occurrences between 1986 and 2009. Bathymetric contours represent depth in meters.

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Projection: Geographic
Red Snapper Killed By Rig Demolition
Why Remove Non-Producing Rigs?

- Abandoned platforms deteriorate and are susceptible to structural failure
- Danger is heightened during storms and hurricanes
- Causes environmental pollution from release of hydrocarbons into surrounding water
- Damages nearby operating infrastructure
- Creates navigation and safety hazards
International Legal Basis for Removal

- Article 5(5) of 1958 Convention on Continental Shelf – “any installations which are abandoned or disused must be entirely removed.”

- Slightly more flexibility in 1982 United Nations Convention on Law of the Sea Article 60(3) – nations shall remove from EEZs and Cont. Shelves all abandoned or disused structures taking into account any generally accepted int’l standards established by competent int’l organizations = Int’l Maritime Organization
1989 IMO Standards

- Reiterates general principle that there is an obligation to remove abandoned and disused offshore structures
- However, allows non-removal and partial removal on case-by-case basis
- Criteria include: impact on surface and sub-surface navigation; commercial fisheries; military activities; pollution of marine environment; dangers of removal; and assignment of liability
- Standards are *not binding* but recommended for IMO member states – Still very influential in domestic legislation
U.S. Law

• The Federal OCSLA and its implementing regulations require operators to decommission platforms and other structures within one year of the end of the lease or after they are no longer useful for production

• Decommission = remove or put to another approved use like rigs-to reefs
U.S. Rigs-to-Reefs Program

- Fishing Enhancement Act of 1984 requires a National Artificial Reef Plan
- Plan encourages Federal/State Partnerships for operators to donate decommissioned offshore platforms to coastal states to serve as artificial reefs
- Louisiana, Texas, Mississippi, and California enacted Rigs-to-Reefs legislation
State Rigs-to-Reefs Programs

• States locate and work with willing operator to donate decommissioned rig (*Donation Worksheet*)

• Cooperate to secure required federal permits from USACE, Coast Guard, and BSEE

• Negotiate an agreement with operator to accept title and liability for structure as reef (*liability shifts for reef structure only not well itself*)

• Agreement generally requires operator to donate 50% of cost savings associated with reefing for use by State for maintenance and conservation
The actual donation amount may differ.

<table>
<thead>
<tr>
<th>Donor</th>
<th>Lease Block Number</th>
<th>Depth of Water</th>
<th>Structure Type</th>
<th>Weight of Jacket</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Complete Removal &amp; Salvage Costs</th>
<th>Estimated Time</th>
<th>Rate</th>
<th>Cost</th>
</tr>
</thead>
</table>

**Derrick barge (size and class)**

- Mobilization/Demobilization of derrick barge
- Removal of deck & equipment
- Secure deck and equipment to cargo/launch barge
- Sever ( □ explosively □ mechanically) and remove ___ conductors
- Sever ( □ explosively □ mechanically) and jet soil plugs in ___ piles
- Deballast jacket
- Rig slings and lift jacket
- Rotate jacket to horizontal and secure jacket on cargo/launch barge

**Subtotal of hours and cost for derrick barge** =

<table>
<thead>
<tr>
<th>Cargo/launch barge #1 for transporting deck (size and class)</th>
<th>Estimated Time</th>
<th>Rate</th>
<th>Cost</th>
</tr>
</thead>
</table>

- Mobilization/Demobilization of cargo/launch barge #1 for deck
- Onsite time for cargo/launch barge #1 for preparing deck
- Transport deck on cargo/launch barge #1 to shore
- Offload and dispose of cargo

**Subtotal of hours and cost for cargo/launch barge #1** =

<table>
<thead>
<tr>
<th>Cargo/launch barge #2 for transporting jacket (size and class)</th>
<th>Estimated Time</th>
<th>Rate</th>
<th>Cost</th>
</tr>
</thead>
</table>

- Mobilization/Demobilization of cargo/launch barge #2 for jacket
- Onsite time for cargo/launch barge #2 for preparing jacket
- Transport jacket on cargo/launch barge #2 to shore
- Offload and dispose of cargo

**Subtotal of hours and cost for cargo/launch barge #2** =

<table>
<thead>
<tr>
<th>Site clearance</th>
<th>Estimated Time</th>
<th>Rate</th>
<th>Cost</th>
</tr>
</thead>
</table>

**Subtotal for Complete Removal** =
### Partial Mechanical Removal in Place Costs

<table>
<thead>
<tr>
<th>Activity</th>
<th>Estimated Time</th>
<th>Rate</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derrick barge (size and class)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Mobilization/Demobilization of derrick barge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Removal of deck &amp; equipment</td>
<td></td>
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</tr>
<tr>
<td>Secure deck to cargo/launch barge using derrick barge equipment</td>
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</tr>
<tr>
<td>Sever (☐ explosively ☐ mechanically ___ conductors)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sever (☐ explosively ☐ mechanically ___ piles)</td>
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<tr>
<td>Deballast upper portion of jacket if necessary</td>
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<tr>
<td>Rig slings for lifting upper jacket and setting it next to standing structure</td>
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</tr>
<tr>
<td>Reposition vessel to set upper jacket on bottom</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Reposition vessel and retrieve rigging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verify clearance over jacket and attach buoy</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Subtotal of hours and cost for derrick barge</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Cargo/launch barge for transporting deck (size and class)</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Mobilization/Demobilization of cargo/launch barge #1 for deck</td>
<td></td>
<td></td>
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<tr>
<td>Onsite time for cargo/launch barge #1 for preparing deck</td>
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<tr>
<td>Transport deck on cargo/launch barge #1 to shore</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Offload and dispose of cargo</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal of hours and cost for cargo/launch barge #1</strong></td>
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</tr>
<tr>
<td><strong>Total Costs for Partial Removal</strong></td>
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</tbody>
</table>

#### Calculation of Donation Amount

- Complete Removal Costs
- Partial Removal Costs -
- Realized Savings =
- 50% of Realized Savings
- Buoy Cost (if applicable) + **$30,000.00**
- **Total Donation** = **$30,000.00**
STATE OF TEXAS
COUNTY OF TRAVIS

MATERIAL DONATION AGREEMENT FOR
TOWED PETROLEUM STRUCTURES

High Island A-572 “C”

Apache Corporation, Northwestern Mutual Life Insurance Company, and Offshore Shelf LLC, collectively hereinafter called "Grantor", in consideration of the payment of Ten Dollars ($10.00), receipt of which is hereby acknowledged, and the mutual covenants and conditions set forth below and pursuant to the provisions of the National Fishing Enhancement Act of 1984 (P.L.980623, Title II), and the National Artificial Reef Plan (as Amended): Guidelines for Siting, Construction, Development, and Assessment of Artificial Reefs (February 2007; NOAA Technical Memorandum NMFS OF-6), and the Texas Artificial Reef Act of 1989, in accordance with Subtitle H, Chapter 89 of the Texas Parks and Wildlife Code, does hereby, for the purpose of enhancing fishing resources in waters within and adjacent to the coast of the State of Texas, irrevocably grant, transfer, assign, and deliver unto the Texas Parks and Wildlife Department acting on behalf of the State of Texas, hereinafter called "Grantee", the following described donated structure, which is hereinafter collectively referred to as "said structure(s)", to-wit:

One 8-Pile jacket structure of a certain oil and gas production platform located in High Island A-572 Outer Continental Shelf leasing block. Said structures' dimensions are as follows:

- Height of Jacket
  (Includes top portion of jacket structure (+)15-ft above water)
  Approximately 323-ft

- Dimensions: Jacket Base
  Approximately 140-ft x 221-ft

- Dimensions: Jacket Top
  Approximately 48-ft x 125-ft

To have and to hold said structure unto Grantee and its assigns forever, subject to
Primary Provisions

• Operator has sole control and responsibility for proper placement at the reef site
• Once State is satisfied that all conditions have been met – title and liability transfers to State
• Operator then has no obligation or duty for maintenance, repair or any other legal requirement
• However, ownership and maintenance of well remains with the operator
• Leaving the rig unaltered

• Toppling the entire structure in current location

• Partially dismantling the rig in its current location

• Relocating to another location

• Coast Guard requires **85 ft. clearance** below the surface W/O maintenance of buoys

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**Methods of Creating Rigs-to-Reefs**

- Rig abandonment
  - Well containment (flushing, plugging, cementing) and dealing with contaminants
  - Monitoring and evaluation

Source: Peter Macreadie
Numbers of Platforms Converted to Reefs

- Louisiana - 302
- Texas – 103
- Mississippi – 8
- Alabama – 4
- Florida - 3

Rigs-to-Reefs Locations in the Gulf of Mexico
Two Events Change Federal Policies

- Hurricanes Katrina and Rita (2005)
- 113 Offshore Rigs Destroyed
- 52 Rigs Damaged
- 183 Pipelines Damaged


Abandoned oil wells in the Gulf

The Interior Department is ordering oil companies to plug nearly 3,500 wells and remove 650 platforms. An Associated Press investigation found that more than 27,000 abandoned wells in the Gulf of Mexico have been ignored, many for decades.

Note: 177 wells have no geographical coordinates
Source: Bureau of Ocean Energy Management, Regulation and Enforcement
Federal “Idle Iron” Policy

• Any platform that becomes “idle” (no production in five years) prior to Oct. 2010 must be decommissioned by Oct. 2015

• Any platform that becomes “idle” after Oct. 2010 must be decommissioned within 5 years

• **813 platforms** and structures will have to be decommissioned within next 5 years

• Many of these platforms are located in shallow waters and heavily used for recreational fishing and diving and are viewed as important marine habitat

Source: Black Elk Energy
Idle Iron versus Rigs-to-Reefs

- Idle Iron Policy accelerating removal of platforms directly affects politically powerful stakeholders = coalition of recreational fishing/diving and environmental groups + oil/gas producers

- Coastal legislators have introduced bills calling for a moratorium on Idle Iron policies

- BSEE has recently taken steps to reduce the political damage
June 2013 Interim Policy Document

• Explicitly states “BSEE supports and encourages the reuse of obsolete oil and gas structures as artificial reefs…”

• Provides greater flexibility to States and operators to complete rigs-to reefs agreements
  – Gives extensions to time requirements
  – Provides latitude in reducing the initial five-mile buffer zone between designated reefing areas and certain restrictions to reefing in place
BSEE Coastal and Marine Spatial Planning Tool

http://23.20.246.238/Rigs2Reefs/index.html
BSEE Coastal and Marine Spatial Planning Tool  

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