

**STUDY TITLE:** Idle Iron, Scrap, and Reuse in the Gulf of Mexico

**REPORT TITLE:** Idle Iron in the Gulf of Mexico

**CONTRACT NUMBER:** 1435-01-04-CA-32806-36184

**SPONSORING OCS REGION:** Gulf of Mexico

**APPLICABLE PLANNING AREA:** Western, Central, Eastern

**FISCAL YEARS OF PROJECT FUNDING:** 2005, 2006

**COMPLETION DATE OF REPORT:** July 2007

**COSTS:** FY 2005: \$65,375.99; FY 2006: \$64,369.01; **CUMULATIVE PROJECT COST:** \$129,745.00

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**KEY WORDS:** Gulf of Mexico; offshore structures; coastal management; environmental protection; decommissioning; idle production infrastructure

**BACKGROUND:** Offshore energy projects progress through four distinct phases- exploration, development, production, and decommissioning. The nature and scope of these activities vary widely, in some cases involving large contiguous zones in surveying to highly localized areas in drilling. The duration of involvement can also vary from transitory, to short term, to horizons extending into decades. Exploration and geophysical assessment begin years before any investment is made, and progress through fabrication and facility installation (2-5 years), production (5-25 years), and finally, decommissioning planning and execution (1-2 years). Social and economic impacts are usually most pronounced during the development phase when facilities are sited, constructed, and installed, and during the long time horizons associated with production, when the facilities are active in the processing and transportation of oil and gas. The social and economic impacts caused by the onset of decommissioning, when wells are plugged and abandoned, facilities removed and dismantled, and the site cleared and verified, is usually considered similar to the installation phase of development but does not receive as much attention.

**OBJECTIVES:** The objective of this project is to examine the main issues associated with idle iron, scrap, and reuse in the Gulf of Mexico (GOM). The topics examined include identifying: how much idle iron is in the GOM, why it exists, and who owns it;

what economic and environmental tradeoffs are involved in onshore versus offshore storage; where scrap metal goes after decommissioning and to what extent it is being reused; what factors determine reuse decisions; what the likely impacts are of policies that require the removal of idle iron; and the general trends of the scrap, reuse, and recycle markets in the GOM.

**DESCRIPTION:** Offshore structures are installed to produce hydrocarbons, but at some point in time during the life cycle of the field, when the cost to operate a structure exceeds the income from production, the structure will exist as a liability instead of an asset. Federal regulations require that an offshore oil and gas lease be cleared of all structures within one year after production on the lease ceases. In recent years, the MMS has begun to encourage operators to remove structures on producing leases that are no longer “economically viable.”

**SIGNIFICANT CONCLUSIONS:** Operators have incentives to remove their idle structures in a timely manner: to avoid environmental and operational hazards; to reduce inspection and maintenance requirements, insurance premiums and liability; and to maintain good working relations with the MMS. On the other hand, operators also have a strong economic incentive to maintain structures offshore: to defer the cost of removal, to increase the opportunity for resale, to reduce the risk and expense of storing platforms in a fabrication yard, to maintain a hedge against future development opportunities, and to reduce the overall cost of decommissioning through economies of scale, scheduling and shared mobilization.

At the end of 2003, a total of 1,227 structures were idle, representing about one-third of all structures that reside in the GOM. The majority of idle structures exist on active leases, and thus, federal regulations allow the structures to be maintained as long as the lease is producing. It is not possible to infer from this analysis which idle structures are serving a useful economic purpose. Only 329 structures were idle on inactive leases at the end of 2003, but this inventory of dead steel will be removed in a timely manner as specified by regulation.

**STUDY RESULTS:** At the end of 2003, there were 2,175 active structures, 898 idle structures, and 440 auxiliary structures on 1,356 active leases; and 329 idle structures and 65 auxiliary structures on 273 inactive leases. A total of 2,175 active structures, 1,227 idle structures, and 505 auxiliary structures, or 3,907 total structures, reside in the GOM.

**STUDY PRODUCT:** Kaiser, M.J. and A.G. Pulsipher. 2007. Idle Iron in the Gulf of Mexico. U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study MMS 2007-031. 203 pp.