UNITED STATES DEPARTMENT OF THE INTERIOR MINERALS MANAGEMENT SERVICE Gulf of Mexico OCE Region New Orleans, Louisians

### FINAL

SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT ENDANGERED SPECIFS/STRUCTURE REHOVAL No. E5/SR 92-146

> Structure Removal Activity East Cameron Area, Block 246 Lease OCS-G 7653 October, 1992

> > BEST AVAILABLE COPY

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# UNITED STATES DEPARTMENT OF THE INTERIOR MINERALS MANAGEMENT SERVICE

Gulf of Mexico OCS Region

New Orleans, Louisiana

## FINAL

SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT ENDANGERED SPECIES/STRUCTURE REMOVAL

No. ES/SR 92-146

Assessment of the Environmental Impacts of the Proposed Removal of Well No. 1 in East Cameron Area, Block 246 (Lease OCS-G 7653)

By Nerco Oil & Gas, Inc.

Date Submitted: October 1, 1992 Commencement Date: November, 1992

Prepared by Ted Stechmann

### FINDING OF NO SIGNIFICANT IMPACT

I have considered the proposal by Nerco Oil & Gas, Inc., to remove Well No. 1, East Cameron Area, Block 246 (OCS-G 7653), SEA No. ES/SR 92-146. Based on the environmental analysis and mitigative measures contained in the site-specific environmental assessment, there is no evidence to indicate that the proposed action(s) will significantly (40 CFR 1508.27) affect the quality of the human environment if the permit/application is approved subject to all of the mitigative measures. Preparation of an environmental impact statement is not required.

visor

10/6/82 Date

Leasing and Environment Gulf of Mexico OCS Region

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#### INTRODUCTION AND BACKGROUND

The purpose of this Site-Specific Environmental Assessment (SEA) is to assess the specific impacts associated with proposed structure-removal activities. The SEA is based on a Programmatic Environmental Assessment (PEA) (USDOI, NMS, 1987) which evaluates a broader spectrum of potential impacts resulting from the removal of structures, e.g., platforms/caissons across the Central and Western Planning Areas of the Gulf of Mexico Outer Continental Shelf. The PEA/SEA process is designed to simplify and reduce the size of environmental assessment documents by eliminating repetitive discussions of the same issues. This SEA conforms to the MMS and other appropriate guidelines for preparing environmental assessments by utilizing data presented in the PEA to complete the assessment. It presents site-specific data regarding the proposed structure removal and evaluates the removal's potential impacts. Preparation of this SEA has allowed the determination of whether a Finding of No Significant Impact (FONSI) is appropriate or whether further assessment of the proposal is necessary.

L. DESCRIPTION OF THE PROPOSAL AND NEED FOR THE PROPOSAL

A. DESCRIPTION OF THE PROPOSED ACTION WITH MITIGATION

Nerco Oil & Gas, Inc., has submitted a proposal to remove Well No. 1 in East Cameron Area, Block 246, (Lease OCS-G 7653). The structure is located in a water depth of 147 feet, approximately 84 miles south of Cameron Parish, Louisiana. The operator plans to utilize Composition B explosive bulk charges to sever the well conductor of Well No. 1 and the three piles of the structure. All of the members will be severed a minimum of 16 feet below the mud line (BML). The operator anticipates using a single charge of 45 lbs. each for the two 36" piles, and 50 lbs. each for the remaining 48" pile and single well conductor. The three piles will be shot in a group with a 0.9 second delay between detonations. The well conductor will be severed with a single detonation.

Refer to Appendix A for structure specifications, additional data on removal techniques, types and quantities of explosives to be used, and sequence of events.

#### MITIGATION

Refer to the operator's proposal (Appendix A) for mitigative measures proposed to reduce the likelihood of death or injury to sea turtles and marine mammals.

## B. NEED FOR THE PROPOSED ACTION

A discussion of the legal and regulatory mandates to remove abandoned oil and gas structures from Federal waters can be found in the PEA (USDOI, MMS, 1987). The operator has stated that the field reserves are depleted, and are no longer in use.

II. ALTERNATIVES TO THE PROPOSED ACTION

A. NON-REMOVAL OF THE STRUCTURE(S)

An alternative to the proposed structure removal as originally submitted is non-removal. Non-removal of the structure would represent a conflict with Federal legal and regulatory requirements, which mandate the timely removal of obsolete or abandoned structures within a period of one year after termination of the lease, or upon termination of a right of use or easement. Therefore, non-removal does not appear to be a valid alternative.

B. REMOVAL OF THE STRUCTURE(S) BY ALTERNATIVE NON-EXPLOSIVE METHODS

The MMS has discussed various structure-removal techniques in the Final Environmental Impact Statement (FEIS) for proposed Oil and Gas Lease Sales 139 and 141, (USDOI, MMS, 1991) and the PEA (USDOI, MMS, 1987). It was concluded that the most effective methods of structure removal are the use of explosives, either bulk or shaped charges, and underwater arc cutting. Other methods appear promising, but require additional development to solve the operational and logistical problems associated with these techniques. Primarily for this reason, it does not appear to be a feasible alternative for the subject structure(s).

Refer to the FEIS (USDOI, MMS, 1991) and PEA (USDOI, MMS, 1987) for detailed information concerning alternative methods of structure removal.

C. REMOVAL OF THE STRUCTURE(S) AS PROPOSED WITH ADDED MITIGATION

It has been determined that the proposed operations fall within the category of activities covered by the National Marine Fisheries Service (NMFS) Biological Opinion of July 25, 1988, which addresses "standard" explosive structure removals in the Gulf of Mexico.

Refer to the terms and conditions of the "generic" Incidental Take Statement (Appendix B), and any mitigation identified by this SEA necessary to reduce the likelihood of death or injury to sea turtles and marine mammals. Our analysis of the proposal indicated that there are existing pipelines within 500 meters (490 feet) of the proposed activities. The existing pipelines may pose a hazard to the proposed operations. Precautions in accordance with NTL 83-3, Section IV.b., will be taken prior to performing the proposed operation.

III. ENVIRONMENTAL EFFECTS, SOCIOECONOMIC CONCERNS, AND OTHER CONSIDERATIONS

A. PHYSICAL ENVIRONMENT

1. Environmental Geology and Geologic Hazards

A discussion of environmental geology and geologic hazards can be found in the PEA (USDOI, MMS, 1987). The proposed structure-removal activities are not in an area of sediment instability (mud flows, slumps, or slides). Therefore, geologic conditions are not expected to have an impact on the proposed structure-removal activities.

2. Meteorological Conditions

No impacts are expected as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

3. Physical and Chemical Oceanography

a. Physical Oceanography

No impacts are expected as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

b. Chemical Oceanography

Impacts are expected to be very low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

4. Water Quality

Impacts are expected to be low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

#### 5. Air Quality

Impacts are expected to be very low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

## B. BIOLOGICAL ENVIRONMENT

## 1. Coastal Habitats

The operator has indicated that they propose to use Berwick, Louisiana, as shorebase to support the proposed activities. No impacts are expected as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

2. Protected, Endangered, and/or Threatened Species

a. Birds

The operator has indicated that they propose to use Berwick, Louisiana, as the shorebase to support the proposed structureremoval activities. The PEA (USDOI, MMS, 1987) delineates sensitive areas along the Texas coastline where whooping cranes and brown pelicans could be adversely impacted by structureremoval support activities. The proposed work is not expected to impact threatened or endangered birds or their habitats.

## b. Marine Mammals

A discussion of marine mammals occurring across the Gulf of Mexico (GOM) and an assessment of the potential impacts of structure-removal activities on marine mammals can be found in the PEA (USDOI, MMS, 1987). Fritts et al. (1983) conducted aerial surveys across a 9,514 square mile area of waters lying in the central GOM. Results of these surveys indicate that the bottlencse dolphin is by far the most likely marine mammal to be encountered at the proposed structure removal. The MMS observers may be utilized to look for marine mammals prior to detonation of the primary charge at the removal site. If marine mammals are detected at the structure-removal site, detonation of the primary charge would be delayed until the animals are removed from the area. In spite of these tions, a low probability exists that marine mammals ' c the blast area undetected and could be injured c the underwater, subsurface detonations. Su cence is considered highly unlikely and with the in "ective mitigation measures, the proposed struct activities are expected to have only a low impact on 1 ARILLIS.

## c. Sea Turtles

A discussion of sea turtles occurring across the central and western GON and an assessment of the potential impacts of structurement al activities on sea turtles can be found in the PEA (US. Min. 1987). Studies by Fritts et al. (1983) and Fuller for  $\Gamma_{ab}$  of (1986) as well as stranding data from the Sea Turtle Stranding and Salvage Network (Teus, 1962) indicate that sea turtles occur in the vicinity of the proposed activities. Definitive information on the probability of encountering sea turtles at the removal site during removal operations is scarce. The NMFS and/or MMS observers may be utilized to look for sea turtles prior to detonation of the primary charges. If sea turtles are detected at the structure-removal site, detonation of the primary charges will be delayed until the animals are removed from the area. As in the case of marine mammals, the possibility exists that sea turtles could enter the blast area undetected, and could be injured or killed by the underwater, subsurface detonations. This occurrence is considered highly unlikely, and with the indicated protective mitigation measures, the proposed structure-removal activities are expected to have only a low impact on sea turtles. A cumulative incidental take has been authorized by NMFS for actions in this category, but wit: all the precautions to be taken as mitigating leasure(s), it is unlikely that any sea turtles will be affected by these proposed operations.

3. Birds

Impacts are expected to be very low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

Sensitive Marine Habitats

A discussion of sensitive mail we habitals occurring in the central and western GON and an successment of the potential impacts of structure-removal activities on these areas can be found in the PEA (USDOI, MMS, 1987). The proposed activities are not near any sensitive marine habitats. Therefore, the subject structure removal will not impact any sensitive marine habitats or their resident blota.

#### 5. Offshore Habitats and Biota

Impacts are expected to be low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction. C. SOCIOECONOMIC CONCERNS

1. Employment

Impacts are expected to le very low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

2. Econoria

Impacts are expected to be very low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

3. Onshore Support Facilities, Land Use, and Coastal Communities and Services

The operator has indicated that they propose to use Berwick, Lorisiana, as the shorebasis to support the proposed structure-Lemaval activities. No impacts are expected as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

- 1. OTHER CONSIDERATIONS
  - 1. Commercial and Recreational Fisheries
    - a. Commercial "isherica

For analysic information, and the PEA referenced in the Introduction. Since the rest was originally written, new concerns have emerged concerning the impacts of explosive structure renevals on reef fich potalations. On May 9, 1991, the Gulf of Mexico Fishery Management founcil expressed concern over the declining stocks of reef fich, especially red snapper. They referred to the antidotal accounts of finfish kills associated with explosive removals of offshore structures in order to limb these activities with their concerns about declining populations of reef fish. They further suggested that the MMS should hold all explosive structure removals in abeyance until more information becomes available on the effects of these activities and Biota) for a discussion of fish kills in association with explosive structure removals.

The ''' has declined to hold all explosive structure removals 1, abeyance citing the robulatory mandates for structure removals and problem; with current non-explosive structure removal methods. The MMS has stated a commitment to carry out studies to assess the impacts of oil and gas structure removals on Gulf fisheries resources and the results of these studies will be used to determine future policies with respect to these activities.

The MMS continue to insider the overall impacts of structure removals on communical rishing to be low. The MMS policy of encouraging an active rigs-to-reefs program will help the offset cumulative surrecture-removal impacts to fisheries tablearces.

The MMS has not been notified through the Fisherman's Contingency Fund of any hang sites within Block 246.

b. Recreational Fisheries

Impucts are expected to be low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction. See the preceding section for a discussion of fish kills in association with explosive structure removals.

2. Archaeological Resources

Impacts are expected to be low as a result of the proposed activities. For analysis information, see the PEA referenced in the Introduction.

3. Milit Use/Warning Areas and Explosive Dumping Areas

The proposed structure-removal activities will not take place in a military use/warning area or in an explosive dumping area. In addition, the shorebase location chosen by the operator and/or his contractor(s) will not require support vessels or aircraft to travitie any of these areas. A description of these areas, their locations and potential impacts of structure-removal activities on these areas can be found in the PEA (USDOI, MMS, 1907). The proposed activities will not impact or be impacted by any military use/warning areas or explosives dumping areas.

Navigation and Shipping

The proposed structure-removal activities in Block 246 are not located in a vessel fairway or anchorage area. Structures located nearshore may serve as "landmarks" to vessels or helicopters operating in the area on a regular basis. The overall impacts of the proposed work on navigation and shipping is expected to be very low. More information on the impacts of structure removal on navigation and shipping can be found in the PEA (USDOI, MMS, 1987).

5. Pipelines and Cables

The PEA (USDOI, MMS, 1937) contains a description of the impacts of structure removal on pipelines and cables. The

proposed work will take place in the vicinity of extrained pipelines. Since the operator must adhere to entering laws and regulations for abondonment of structures (inclusiving procedures required by Notice to Lessees and Operators 83%), the proposed work should not pose a hazard to pipelines or cables in the area.

#### 6. Other Mineral Resources

No impacts are expected as a result of the processed activities. For analysis information, see the PEA referenced in the Introduction.

#### 7. Human Health and Safety

The PEA (USDOI, MMS, 1987) describes the hazardous conditions for workers during structure-removal activities. The operator has proposed the use of explosive methods to remove the subject structure. Existing legal and esplicatory safety requirements will keep the impacts of the proposed work on human health and safety at a very low level.

#### E. UNAVOIDABLE ADVERSE IMPACTS

A clacussion of unavoidable adverse impacts can be found in the PfM (USDOI, MMS, 1987). Two areas of ongoing condern have been the potential impact to protected, threat hed, an //or endangered species and potential loss of habitat to the marine environment. Both topics are discussed in the PFA and previously in this document. A more recent issue of concern has surfaced regarding the impacts of explosive structure removals on reef fish stocks. This issue has been previously discussed in this document. Although the impacts to conserval and recreational fisheries is considered to be low, forther studies internation about this issue should be available in the future. Other unavoidable adverse impacts are considered to be minor.

#### IV. PUBLIC OPINION

A discussion of public concerns recarding tructure removals can be found in the PEA (UNDOI MMS, 1987).

In May 1991, the Gulf of Mexico Fishery Management Council requested that the MMS place a moratorium over the explosive removal of offshore structures with three or more supports. Nonremoval of these structures would conflict with current Federal legal and regulatory requirements which mandate the timely removal of abandoned or obsolete structures within a period of one year after termination of the lease, or upon termination of a right-of-use or easement.

The MMS believes that current data on the effects of explosive removals on fish mortality is insufficient to draw any conclusions, and a moratorium on all but single pile caissons at this time is unjustified. In order to quantify explosive effects, the MHS initiated an interagency study with the MHFS to determine fish mortalities from platfore removal operations. In addition to the above study, the MHS supports an active rigs-toreef program and encourages industry to search for method that will minimize effects on fish from platform removal operations.

#### V. CONSULTATION AND COORDINATION

In accordance with the provisions of Section 7 of the Endangered Species Act, the proposed structure-removal operations are covered by the Biological Opinion issued by NMFS on July 25, 1988, which established a category of "standard" explosive structure-removal operations. Their comments are included in Appendix B. The NMFS concluded that this category of structureremoval activities will not likely jeopardize the continued existence of any threatened or endangered species under their purview. Additionally, they concluded that this type of "standard" structure-removal activity may result in injury or mostality of loggerhead, Kemp's ridley, green, hewksbill, or leatherback turtles. Therefore, they astablished a cumulative level of incidental take and discussed various measures necessary to monitor and minimize this impact (see Appendix B). The NMFS noted that no incidental taking of marine manuals was authorized under Section 101(a) (5) of the Marine Mammal Protection Act of 1972, in connection with this category of structure-removal activities. Therefore taking of marine mammals by the operator would be prohibited unless they successfully apply for and obtain a waiver or permit to do so from NMFS.

## VI. BIBLIOGRAPHY AND SPECIAL REFERENCES

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Teas, Wendy G. 1992. Final report of the sea turtle stranding and salvage network. Atlantic and Gu'l Coasts of the United States. January - December 1991. National Marine Fisheries Service. Southeast Fisheries Center, Miami Laboratory, 75 Virginia Beach Drive, Miami, FL.

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VII. PREPARERS Author: Ted Stechmann - Biologist Typist: Alice Sue Kriz - Clerk Typist

# VIII. APPENDICES

- A. NERCO OIL & GAS, INC., CORRESPONDENCE
- B. NMFS CORRESPONDENCE

APPENDIX A

NERCO OIL & GAS, INC., CORRESPONDENCE

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	A	10/1/92

UNITED STATES GOVERNMENT MEMORANDUM

To:	Environmental Opera	ations Section	(LE-5)	
From: Office of Structural and Technic Gulf of Mexico OCS Region (OSTS)		al Support, Field C	perations,	
Subject:	Platform Removal		PSC.	EIVEN
OPERATOR:	Nerco		OCT	1 1992
Control N	o: ES/SR 92	-146	LEASING &	AGEMENT SERVICE Environment
Platform		Area/Block	L	2350
N	0.1	EC 2	46	OCS - 6 7653
Shore Bas	e: Berwick	, LA		

The attached application is forwarded to your office so that the Finding of No Significant Impact can be prepared. We believe this proposed activity meets the requirements of the generic Endangered Species Act Section 7 Consultation Document. There are/emerge-existing pipeline(s) within 500 feet of the proposed removal location.

8h Arvind Shah (OSTS)

Extension 2894

Enclosure

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NERCO

NERCO OIL & GAS, INC. 10375 RICHMOND AVE SUITE 600 HOUSTON. TX 77042 PO 80X 770609 HOUSTON. TX 77215-0909 TELEPHONE (713) 266-6040 TELECOPER (713) 266-6404

September 28, 1992

RECEIVED

SEP 2 9 1992

Office of Structural and Technical Support

United States Department of the Interior Minerals Management Service (MS 5210) Gulf of Mexico OCS Region 1201 Elmwood Park Boulevard New Orleans, Louisiana 70123-2394

> Attention: Mr. D.J. Bourgeois Regional Supervisor Field Operations

> > RE: Proposed Platform Removal, OCS-G 7653, East Cameron 246 Well No. 1 Tripod Well Protector Platform

Gentlemen:

NERCO 011 & Gas, Inc. (NOG) herein applies to remove the East Cameron 246 Well No. 1 Tripod Well Protector using explosives. The information required by Section 7 of the Endangered Species Act for a proposed OCS platform removal is attached. Please note the proposed explosives program complies with the "generic" Section 7 guidelines.

NOG tentatively plans to remove the jacket and place it on a cargo barge to be off-loaded onshore. The deck will be transported to NOG location Ship Shoal 128 where it will be placed on a new jacket and pile foundation. Appropriate permits will be submitted for the installation of the Ship Shoal 128 platform and facilities. The current schedule is to start platform removal in early to mid November 1992.

Please contact Carter Crawford at (713) 260-5536 or Jim Snyder at (713) 896-4902 if you have any questions or require additional information regarding this application.

Sincerely,

Just Orng

Bekki Long Permit Coordinator

Enclosures

# ----- TWACHTMAN SNYDER & THORNTON, INC. ---

# PROPOSED OCS PLATFORM/STRUCTURE REMOVAL

# I. Responsible Party

	<b>A</b> .	Lease	Operator Name:			Nerco Qil & Gas, Inc.
	<b>B</b> .	Addre	SS:			10375 Richmond Avenue, Suite #600 Houston, TX 77082
	С.	Contac	and Telephone Num	ber:		Carter Crawford (713) 260-5536 Jim Snyder (713) 896-4900
П.	Identif	fication	of Structure to be Ren	noved		
	<b>A</b> .	Platfor	rm Name:			East Cameron 246 Well No. 1
	В.	Locati	on Coordinates:			X = 1,486,794 Y = (-) 46,471 Lat: 28° - 31' - 45.578" N I on: 92° - 55' - 51.346" W
	<b>C</b> .	Date I	nstalled:			1991
	D.	Propos	sed Date of Removal:			November 1992
	E.	Water	Depth:			147 feet
	F.	Locati	on of Shorebase:			Spirit Enterprises 1046 River Road Berwick, LA 70342
Ш.	Descri	ption o	f Structure to be Remo	ved		
	<b>A</b> .	Config	guration:			Please see attached drawings for the platform configuration
	<b>B</b> .	Size:				
		1.	Deck			42 ft. x 39 ft.
		2.	Top of Jacket		016	30' x 30' x 30'
EC 246	Well No	1		Page 1		September 28, 1992

		TWACHTMAN SI	NYDER & THORNTON, INC
		3. Bottom of Jacket	71' - 3" x 58' - 8" x 58' - 8"
	С.	Number of Legs/Casings/Piles	s: 1 Pile 48" O.D. x 1 375" w.t. @ mudline 2 Piles 36" O.D. x 1.375" w.t. @ mudline
			Well #1 - 36" Q.D. x .750" w.t. conductor 30" Q.D. x 1.00" w.t. surface pile
	D.	Are Piles Grouted:	No
	E.	Description of Soil Compositi	on:
		See attached "Log of Boring a	and Test Results".
IV.	Purp	lose	
	A	Reason for Platforin Removal	Field reserves are depleted.
<b>V</b> .	Rem	oval Method	
	Α.	Method to be Used.	The platform will be removed by a derrick barge after severing the conductor and piles with explosive charges.
	₿.	If Explosives are to be Used I	Provide the Following:
		1. Kind of explosive:	Composition B
		2. Number and size of ch	arges:
		Conquetor:	Well #1 - 50 lb charge
		A charge will be place	d in the well conductor and detonated.
		Piles:	
		36" Q.D. piles - 45 lb	charges
		48" O.D. pile - 50 lb	charges
		The three (3) piles wild detonations.	be shot in a group with a 0.9 second delay between
			017
EC 24	Well N	o. 1	Page 2 September 28, 1992

#### TWACHTMAN SNYDER & THORNTON, INC.

3. Bulk configured charges will be used in the conductor and in the piles. All charges will be detonated twenty feet below the mudline. If the charges fail to sever on the first attempt, new charges will be detonated sinteen fee. below the mudline.

- C. Pre-Detonation Techniques
  - A 48 hour pre-detonation survey for marine mammals and sea turtles will be conducted by NMrS observers. Immediately prior to the detonation of the charges, a 30 minute aerial survey will be performed.
  - 2. The use of scare charges or acoustic devices is not proposed.
  - Divers will not be used to conduct a pre-detonation survey to detect the presence of turtles or marine mammals.
- D. Post-Detonation Monitoring Techniques
  - Immediately after the detoration of the charges, a 30 minute aerial survey will be performed. The NMFS observers will collect samples of any marine life killed by the explosives.
  - Transducers will not be the detonations.
  - Divers will not be used to perform a post-detonation survey of the area.

## VI. Biological Information

No biological surveys have been done in this area. There have been no sightings of sea turtles in this area.

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# APPENDIX B

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# NMFS CORRESPONDENCE

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UNITED STATES DEPURIMENT OF COMMERCE Notional Oceanic and Atmospheric Administration Wational Marine FigheRies Service Washington Q.C. 20215

JUL 2 5 1988

Mr. William D. Bettenberg Director Minerals Management Service U.S. Department of the Interior Washington, D.C. 20240

Dear Mr. Bettenberg:

Enclosed is the Biological Opinion prepared by the National Marine Fisheries Service (NMFS) pursuant to Section 7 of the Endangered Species Act (ESA) concerning potential impacts on endangered and threatened species associated with removal of certain oil and gas platforms and related structures in the Gulf of Mexico (GON) using explosives.

This "standard" consultation covers only those resc/al operations that meet specified criteris pertaining to the size of explosive charge used, detonation depth, and number of blasts per structural grouping. Consultation must be initiated on a case-by-case basis for all dismantling operations requiring the use of explosives that do not meet the established criteria.

NMPS concludes that structure removals in the GON that fall within the established criteris are not likely to jeopardize the continued existence of listed species under the jurisdiction of MMTS. However, it is our opinion that the proposed activities may result in the injury or mortality of andangerod and threatened see turtles. Therefore, pursuant to Section 7(b)(4) of the ESA, we have established a low level of incidental take, which is cumulative for all removals covered by this consultation, and terms and conditions neuessary to minimize and monitor any impacts, abould they occur. The terms and conditions are contained in the enclosed incidental take statement. Also enclosed is a list of pending consultations that meet, with noted exceptions, the criteria established in the "standard" consultation. This biological opinion and the mitigating measures and terms and conditions contained in the related incidental take statement apply to these proposed removel operations. Therefore, formal consultation is concluded for these proposed actions.



"\* Years Stimulating America's Progress + 1913-1968

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Consultation must be reinititated if: (1) the amount or extent of taking specified in the incidental take statement is exceeded: (2) new information reveals impacts of the proposed activities that may affect listed species in a manner or to an identified activities are modified in a manner that causes an adverse effect to listed species not previously considered; or (4) a new species is listed or critical hybitat is designated

I look forward to your continued cooperation in future consultations.

Sincerely,

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Jines W. Brennan Jesistant Administrator for Fisherics

Enclosures

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## Biological Cpinion

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#### Agency: Minerals Management Service, U.S. Department of the Interior

Activity: Consultation for Removal of Certain Outer Continental Shelf Oil and Gas Structures in the Gulf of Mexico

Consultation Conducted By: National Marine Fisheries Service (MMPS)

Date Issued:

Background Information:

In a letter dated November 19, 1986, the Minerals Managament Service (MMS) made an initial request for formal consultation pursuant to Section 7 of the Endangered Species Act (ESA) for the removal of an offshore oil and gas platform located in the Federal waters of the Gulf of Mexico (GOM). MME and MMFS determined that removal of oil and gas platforms and related structures in the GOM may affect endangered and threatened marine species. This "may affect" determination was based on a possible relationship between endangered and threatened sea turtle mortalities and the dismantling of platforms using explosives. On November 25, 1986, MMFS issued the first of a series of biological opinions addressing, in detail, the potential impacts to listed marine species that may occur as a result of OCS abandonment activities.

MMS and MMFS established procedures for expediting Section 7 consultations on platform abundanment activities in the GOM referrad to as "expedited consultations." Following those prodedures, approximately 64 consultations have been completed for removal operations in the GOM region. All of the consultations have concluded that the proposed abandonment activities were not likely to jectordize the continued colstance of any listed species, but that the proposed activities may result in the incidental taking of endangered and threatened set turtles.

The dismantling of platforms and related structures using explosives has evolved to a point where a "standard" protocol can be established for removal operations meeting certain criteria. Based upon removal techniques developed and reviewed in conjunction with the previously conducted "expedited consultations," MMS has requested, by letter of May 24, 1988, a "generic consultation" that would be applicable to all future removal operations that fall within a distinct category, defined by specific parameters. A category has been designed to include those structure types and removal techniques most commonly encountered during the expedited consultations and dismantling operations already completed. Since approximately 1000 structures that may be scheduled for future removal fall within the parameters of the established category, NMPS agrees that a "generic" consultation is appropriate at this time. The objective of the consultation is to isduce the administrative burden on both MMS and MMFS for conducting repetitive consultations on activities that may result in similar impacts to listed species and that require identical mitigating measures to maintain adequate protection for such species. This biological opinion responds to MMS' May 24, 1988, consultation request. The opinion is based on the bast scientific and connercial data presently available and incorporates information from: 1) previous MMS Summary Evaluations, 2) previous MMPS biological opinions on platform removal, 3) the scientific literature, and 4) other pertinent and available information. Consultation must be reinitiated if new information becomes available concerning impacts to listed species that would alter the conclusions reached in this opinion or require modification of the measures identified in the attached incidental take statement. Consultation will continue on a case-by-case basis for those structure removals that do not meet the criteria .established for "standard" removals.

#### Description of Proposed Action:

The proposed action involves the removal, by explosive means, of offshore oil and gas structures located in Pederal waters in the Gulf of Mexico. Removal of the structures will be accomplished by severing the support pilings, caissons, well conductors, etc., using varying amounts of explosivos to permit salvage of the structures. This involves the placement of explosives inside or outside of supporting structures and detonating charges primarily using electronically controlled signals.

This "generic" consultation considers only those removal operations that most certain criteria pertaining to the size of the explosive charge used, detonation depths, and number of blasts per structural grouping. The specific criteria established to cover such removals are as follows:

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 Use of high velocity explosives (detonation rate greater than 7,600 meters/second).

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 A maximum of eight individual blasts per group of detonations with charges staggered at an interval of 0.9 seconds (900 milliseconds).

3) Charges must be set at a minimum depth of 15 feet below the sediment surface. Severing of structures above the sediment surface "open vater" must be accomplished by mechanical (nonexplosive) methods.

4) The maximum amount of explosives per detonation is not to exceed 50 pounds.

Species occurring in the Project Area:

Listed species under the jurisdiction of NNFS that may occur in the project area:

COMMON NAME	SCIENTIFIC HAME	STATUS	LISTED
right whele	Eubalaena glacialia	ε	6/2/70
finback whale	Balaenopters physilus	2	6/2/70
humpback whale	Megapters novacanglias	E	6/2/70
sei whale	Balasnopters borealis	E	6/2/70
sperm whale	Physeter satedon	Ł	6/2/70
green turtle	Chelonia sydas	Th S.	7/28/78
Kemp's ridley turtle	Lapidochelys kaspi		12/2/70
leatherback turtle	Dermochelys coriaces	E	6/2/70
Loggerhead turtle	Caratta caratta	Th	7/28/78
havksbill turtle	Erstmochelys imbrigate		6/2/70

\*All of the U.S. green turtle populations are listed as threatened except the Florida breeding population, which is listed as endangered. No critical habitat has been designated in the project area for the above species.

#### Assessment of Impacts:

Based upon their known distribution and abundance in the GOM, endangered whales are believed unlikely to occur in the vicinity of the proposed structure removal activities, and, therefore, unlikely to be adversely affected by the proposed action.

Previous NNFS biological opinions (November 25, 1986 and February 26, 1987) have addressed, in detail, removal of structures in the GON. Accounts of endangered and threatened species which occur in the project area, and the "Assessment of Impacts" contained in these prior opinions also apply to this consultation and are incorporated by reference.

In summary, the opinions referenced above acknowledge the existence of a possible relationship between the use of underwater explosives in removing platforms and related structures and the occurrence of stranded nea turtles, marine "immels (<u>furgions truncatus</u>) and fish. Limited experiments inducted by MMPS, Galveston Laboratory confirm that sea turtles and other marine vertebrates) found in provinity to petroleum platforms can be injured or killed by removal operations employing underwater explosives (Klime, 1986).

Technology most commonly used in the dismantling of platforms includes: bulk explosives, shaped explosive charges, mechanical and abrasive cutters and underwater arc cutters. The use of bulk explosives has become the industry's standard procedure for severing pilings, well conductors and related supporting structures (approx. 90% use). When using bulk charges, the inside of the structure can be jetted out to at least 15 feet below the sediment floor to allow placement of explosives inside of the structure, resulting in a decrease in the impulse and pressure forces released into the water column upon detonation. The use of high velocity shaped charges is reported to have some advantages over bulk explosives and has been used in combination with smaller bulk charges. The cutting action obtained by a shaped charge is accomplished by focusing the explosive energy with a conical metallic liner. A major advantage sesociated with use of high velocity shaped charges is that a smaller mount of explosive charge is required to saver the structure, which also results in reductions in the impulse and pressure forces released into the vater column. Use of mechanical cutters and undervater arc cutters is successful in some circumstances and do not produce the impulse and pressure forces associated with detonation of explosives, however, these methods are, in most instances, more time consuming, costly and more heardous to divers. As a result, these methods are not used on a routine basis (NOS Report on Platform Removal Techniques).

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Based upon data obtained during previously conducted "expedited" consultations on platform removals, the following is a comparison of the types of explosives most likely to be used in the proposed removal operations:

Explosive	Defenating Velocity	Brisance:
RDX	approx. \$,199 m/sec.	1.35
c-4	approx. \$,001 m/sec.	1.15
CompB	approx. 7,803 m/mr 1.	1.32

The proposed removel operations will be acc plished using high velocity explosives. Use of this type of indelve charge should minimize the duration of the impulse and issure forces produced by detonution of the charges, while providing the amount of force required to sever the structures. According to MMS, restricting the grouping of detonations to sight individual plasts per group and staggering blasts by 0.9 seconds (900 milliseconds) vill minimize the area affected by the blasts and suppress phasing of shock waves, thereby decreasing the cumulative effects of the blasts. In addition, since all detonations will occur at least 15 feet below the sediment surface and no more than 50 pounds of explosives per blast will be permitted, the amount of remidual energy released into the marine anvironment should be reduced significantly. As a result, MMFS believes that minimal shock and impulse forces will be released in the vicinity of removal operations at any given time.

To date, of approximately is previously conducted consultations covering abandonment activities, about 33 structure removals have been completed. Each removel operation was monitored by NMTS observers and was conducted using appropriate mitigating measures. At the present time, sight turtles have be a sighted in areas near structures being dismantled, at least two of which were green turtles. Of the sight documented sightings, one turtle was reported to be floating on it's beck mear a platform. No other incidents of eactures have been sortalicy have been reported. Therefore, NMTS believes that the proposed actions are not likely to result in significant adverse impacts to endangered and threatened sea turtle populations.

#### Conclusions:

Based on the above, it is cur opinion that removal of platforms and related structures in the GOM is not likely to jeopardize the continued existence of threatened and endangered species under the jurisdiction of NMFS. However, NMFS concludes that the proposed activities may result in the injury or mortality of loggerhead, Kemp's ridley, green, hawksbill and leathertack turtles. Therefore, pursuant to Section 7(b)(4) of the ESA, we have established a low level of incidental take and terms and conditions necessary to minimize and monitor this impact. Compliance with these terms and conditions is the responsibility of PMS and the permit applicant.

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Ref litiation of Consultation:

Consultation must be reinitiated if: 1) the amount or extent of taking specified in the incidental take statement is met or exceeded; 2) new information reveals impacts of the project that may affect listed species in a manner or to an extent not considered in this opinion; 3) the identified activities are modified in a manner that causes an adverse effect on listed species not previously considered; or 4) a new species is listed or critical habitat is designated that may be affected by the proposed activities.

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#### INCIDENTAL TAKE STATEMENT

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Section 7(b)(4) of the Endangered Species Act requires that when a proposed agency action is found to be consistent with Section 7(a)(2) of the Act and the proposed actions may incidentally take individuals of listed species, NMFS will issue a statement that specifies the impact (amount or extent) of such incidental taking. Incidental taking by the Federal agency or applicant that complies with the specified terms and conditions of this statement is authorized and exempt from the taking prohibitions of the ESA.

Based on stranding records, incidental captures aboard commercial shrimp vessels and historical data, five species of sea turtles are known to occur in northern Gulf of Mexico waters. Current available information on the relationship between sea curtle mortality and the use of high-velocity explosives to remove oil platforms indicates that injury and/or death of sea turtle - may result from the proposed actions. Therefore, pursuant to Section 7(b)(4) of the ESA, an incidental take (by injury or mortality) level of one documented Kemp's ridley, green, havksbill or leatherback turtle or ten loggerhead turtles is set for all removal operations conducted under the terms and conditions of this incidental take statement. The level of taking specified here is cusulative for all removals covered by this consultation. If the incidental take meets or exceeds this specified level, MIS must reinitiate consultation. The Southeast Region, MMFS, will cooperate with MMS in the review of the incident to determine the need for developing further mitigation measures.

The reasonable and prudent measures that NMPS believes are necessary to minimize the impact of incidental takings have been discussed with NMS and will be incorporated in the removal delign for "standard" structure removals. The following terms and conditions are established for these removals to implement the identified mitigation measures and to document the incidental take should such take occur:

 Qualified observer(s), as approved by MMFS, must be used to monitor the area around the site prior to, during and after detonation of charges. Observer coverage will begin 48 hours prior to detonation of charges. If sea turtles are observed in the vicinity of the platform and thought to be resident at the site, pre- and post-detonation diver surveys must be conducted.

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2) On days that blasting operations occur, a 30-minute serial survey must be conducted within one hour before and one hour after each blasting episode. The NMFS-approved observer and/or NMFS on-site personnel (NMFS employee only) must be used to check for the presence of turtles and, if possible, to identify species. If weather conditions (fog, excessive winds, etc.) make it impossible to conduct aerial surveys, blasting activities may be allowed to proceed if approved by the NMFS and/or MMS personnel on-site.

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3) If sea turtles are observed in the vicinity of the platform (within 1000 yards of the site) prior to detonating charges, blasting will be delayed until attempts are successful in removing them at least 1000 yards from the blast site. The aerial survey must be repeated prior to resuming detonation of charges.

4) Detonation of explosives will occur no sconer than 1 hour following sunrise and no later than 1 hour prior to sunset. However, if it is determined by NNPS and/or NOLS on-site personnel that special circumstances justify a modification of these time restrictions and that such modification is not likely to adversaly impact listed species, blasting may be allowed to proceed outside of this time frame.

5) During all diving operations (working dives as required in the course of the removals), divers will be instructed to scan the subsurface areas surrounding the platform (blasting) sites for turtles and marine mammals. Any sightings must be reported to the NMFS or NMS on-site personnel. Upon completion of blasting, divers must report and attempt to recover any sighted injured or dead sea turtles or marine mammals.

6) Charges must be staggered 0.9 seconds (900 milliseconds) for each group of structures, to minimize the cumulative effects of the blasts. If a removal operation involves multiple groupings of structures, the interval between detonation of charges for each group should be minimized to avoid the "chumming" effect. Whenever such intervals exceed 90-minutes, the aerial survey must be repeated.

7) The use of scare charges should be avoided to minimize the "chumming effect." Use of scare charges may be allowed only if approved by the NNFS and/or NNS on-site personnel.

8) A report summarizing the results of the removal and mitigation measures must be submitted to the MMS Gulf of Mexico Region within 15 working days of the removal. A copy of the report must be forwarded to MMPS, Southeast Region.

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This incidental take statement applies only to endangered and threatened sea turtles. In order to allow an incidental take of a marine mammal species, the taking must be authorized under Section 101(a)(5) of the Marine Mammal Protection Act of 1972. Although interest has been expressed in obtaining an exception authorizing a limited take of dolphins incidental to abandonment activities, no marine mammal take is authorized until appropriate small take regulations are in place and related "Letters of Authorization" are issued.

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1	Operator	Longo Area	Block	Structure
40	Mobil Exploration and Producing Company U.S. Inc.	Bugene Island	354	
		Vermilion	182	<u> </u>
41	Kerr-NcGee Corporation	Ship Shoel	296	
42	Conoco lac.	Ship Shoel	206	
	•	Vermilion	242	Ä
43	Nobil Exploration and Producing Company U.S. Inc.	West Caseron	132	1
·			141	<u> </u>
44	Yenneco 011 Exploration and Production	East Cameron	255	
45°	Metail Exploration and Producing Company U.S. Inc.	Rugono Joland	119	¢
	(hel (port)	Vermilion	76	
	Except capped and plugged wells "A" & "B" in We	milion-76-8		-
46	Mobil Exploration and Producing Company U.S. Inc.	Vermilion	76	1
47	Samaden Oil Corporation	Galveston	241	
48	Conoco Inc.	Grand Isle	63	
		•	54	3
		-	47	
49	Mobil Exploration and Producing Company U.S. Inc.	Hain Page	91	2
50	Mobil Exploration and Producing Company U.S. Inc.	South Pelto	12	0
51	Exxon Company	West Dolta	30	5
		1		v
		:	31	1
52	Conoco Inc.	West Delta	45	R-1

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53	Mobil Exploration and Producing Company U.S. Inc.	West Cameron South Marsh	71 235	A 9
54	Tenneco Oil Exploration and Production	Ship Shoel	199	8
56 °	Conoco Inc. Except West Cameron-261-A	West Cameron East Cameron 8. Marsh, N. Ad	135 47 261	A D A
57•	Exxon Company U.S.A. Except High Island East Addition-A342-A	High Is., B. Ad	A-342	
58	SHP Petroleum	High Island	A-507	A
59	Hobil Exploration and Producing Company U.S. Inc.	East Cameron	14	5
60	PMP Operating Company	Nest Caseron	464	
61	Amoco Production Company	S. Marsh Island	33	

Consultations whose numbers include an asterisk (\*) did not totally fall under the parameters of this "standard " consultation, therefore, only those removals meeting the parameters are approved and further consultation will be necessary for the exceptions.

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