CHAPTER 8

GLOSSARY

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Acute — Sudden, short term, severe, critical, crucial, intense, but usually of short duration.

Anaerobic — Capable of growing in the absence of molecular oxygen.

Anthropogenic — Coming from human sources, relating to the effect of humankind on nature.

Aphotic zone — Zone where the levels of light entering through the surface are not sufficient for photosynthesis or for animal response.

API gravity — A standard adopted by the American Petroleum Institute for expressing the specific weight of oil.

Aromatic — Class of organic compounds containing benzene rings or benzenoid structures.

Attainment area — An area that is shown by monitored data or by air-quality modeling calculations to be in compliance with primary and secondary ambient air quality standards established by the USEPA.

Barrel (bbl) — A volumetric unit used in the petroleum industry; equivalent to 42 U.S. gallons or 158.99 liters.

Benthic — On or in the bottom of the sea.

Biological Opinion — FWS or NMFS evaluation of the impact of a proposed action on endangered and threatened species, in response to formal consultation under Section 7 or the endangered Species Act.

Block — A geographical area portrayed on official MMS protraction diagrams or leasing maps that contains approximately 2,331 ha (9 mi^2).

Blowout — Uncontrolled flow of fluids from a wellhead or wellbore.

Cetacean — Aquatic mammal of the order Cetacea, such as whales, dolphins, and porpoises.

Chemosynthetic — Organisms that obtain their energy from the oxidation of various inorganic compounds rather than from light (photosynthetic).

Circalittoral — The lower subdivision of the marine sublittoral zone; specifically between the 100- and 200-m isobaths.

Coastal waters — Waters within the geographical areas defined by each State's Coastal Zone Management Program.

Coastal wetlands — Forested and nonforested habitats, mangroves, and marsh islands exposed to tidal activity. These areas directly contribute to the high biological productivity of coastal waters by input of detritus and nutrients, by providing nursery and feeding areas for shellfish and finfish, and by serving as habitat for birds and other animals.

Coastal zone — The coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder) strongly influenced by each other and in proximity to the shorelines of the several coastal states; the zone includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches and extends seaward to the outer limit of the United States territorial sea. The zone extends inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters. Excluded from the coastal zone are lands the use of which is by law subject to the discretion of or which is held in trust by the Federal Government, its officers, or agents.

Completion — Conversion of a development well or an exploratory well into a production well.

Condensate — Liquid hydrocarbons produced with natural gas; they are separated from the gas by cooling and various other means. Condensates generally have an API gravity of 50°-120°.

Continental margin — The ocean floor that lies between the shoreline and the abyssal ocean floor, includes the continental shelf, continental slope, and continental rise.

Continental shelf — The continental margin province that lies between the shoreline and the abrupt change in slope called the shelf edge, which generally occurs in the Gulf of Mexico at about 200 m. water depth. The

continental shelf is characterized by a gentle slope (about 0.1°).

Continental slope — The continental margin province that lies between the continental shelf and continental rise, characterized by a steep slope (about 3°-6°).

Critical habitat — Specific areas essential to the conservation of a protected species and that may require special management considerations or protection.

Crude oil — Petroleum in its natural state as it emerges from a well, or after it passes through a gas-oil separator but before refining or distillation. An oily, flammable, bituminous liquid that is essentially a complex mixture of hydrocarbons of different types with small amounts of other substances.

Deferral — Action taken by the Secretary of the Interior at the time of the Area Identification to remove certain areas/blocks from the proposed sale.

Delineation well — A well that is drilled for the purpose of determining the size and/or volume of an oil or gas reservoir.

Demersal — Living at or near the bottom of the sea.

Designated environmental preservation areas — Gulf of Mexico shorefront areas legislatively, administratively, or privately protected in recognition of the quality and significance of their natural environments. Included are National Parks and Preserves, National and State Wilderness Areas, National Marine and Estuarine Sanctuaries, National Landmarks, Wildlife Sanctuaries, Florida Aquatic Preserves, and Environmentally Endangered Lands.

Development — Activities that take place following discovery of economically recoverable mineral resources, including geophysical surveying, drilling, platform construction, operation of onshore support facilities, and other activities that are for the purpose of ultimately producing the resources.

Development Operations Coordination Document (DOCD) — A document that must be prepared by the operator and submitted to MMS for approval before any development or production activities are conducted on a lease in the Western Gulf.

Development well — A well drilled to a known producing formation to extract oil or gas; a production well; distinguished from a wildcat or exploratory well and from an offset well.

Direct employment — Consists of those workers involved the primary industries of oil and gas exploration, development, and production operations (Standard Industrial Classification Code 13—Oil and Gas Extraction).

Discharge — Something that is emitted; flow rate of a fluid at a given instant expressed as volume per unit of time.

Dispersion — A suspension of finely divided particles in a medium.

Drilling mud — A mixture of clay, water or refined oil, and chemical additives pumped continuously downhole through the drill pipe and drill bit, and back up the annulus between the pipe and the walls of the borehole to a surface pit or tank. The mud lubricates and cools the drill bit, lubricates the drill pipe as it turns in the wellbore, carries rock cuttings to the surface, serves to keep the hole from crumbling or collapsing, and provides the weight or hydrostatic head to prevent extraneous fluids from entering the well bore and to downhole pressures; also called drilling fluid.

Economically recoverable resources — An assessment of hydrocarbon potential that takes into account the physical and technological constraints on production and the influence of costs of exploration and development and market price on industry investment in OCS exploration and production.

Effluent — The liquid waste of sewage and industrial processing.

Effluent limitations — Any restriction established by a State or the USEPA on quantities, rates, and concentrations of chemical, physical, biological, and other constituents discharged from point sources into U.S. waters, including schedules of compliance.

Epifaunal — Animals living on the surface of hard substrate.

Essential habitat — Specific areas crucial to the conservation of a species and that may necessitate special considerations.

Estuary — Coastal semienclosed body of water that has a free connection with the open sea and where freshwater meets and mixes with seawater.

Eutrophication — Enrichment of nutrients in the water column by natural or artificial methods accompanied by an increase of respiration, which may create an oxygen deficiency.

Exclusive Economic Zone (EEZ) — The maritime region extending 200 nmi from the baseline of the territorial sea, in which the United States has exclusive rights and jurisdiction over living and nonliving natural resources.

Exploration Plan (EP) — A plan that must be prepared by the operator and submitted to MMS for approval before any exploration or delineation drilling is conducted on a lease in the Western Gulf.

Exploration well — A well drilled in unproven or semi-proven territory to determining whether economic quantities of oil or natural gas deposit are present; exploratory well.

False crawls — Refers to when a female sea turtle crawls up on the beach to nest (perhaps) but does not and returns to the sea without laying eggs.

Floating production, storage, and offloading (FPSO) system — A tank vessel used as a production and storage base; produced oil is stored in the hull and periodically offloaded to a shuttle tanker for transport to shore..

Gathering lines — A pipeline system used to bring oil or gas production from a number of separate wells or production facilities to a central trunk pipeline, storage facility, or processing terminal.

Geochemical — Of or relating to the science dealing with the chemical composition of and the actual or possible chemical changes in the crust of the earth.

Geophysical survey — A method of exploration in which geophysical properties and relationships are measured remotely by one or more geophysical methods.

Habitat — A specific type of environment that is occupied by an organism, a population, or a community.

Hermatypic coral — Reef-building corals that produce hard, calcium carbonate skeletons and that possess symbiotic, unicellular algae within their tissues.

Harassment — an intentional or negligent act or omission that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns that include, but are not limited to, feeding or sheltering.

Hydrocarbons — Any of a large class of organic compounds containing primarily carbon and hydrogen. Hydrocarbon compounds are divided into two broad classes: aromatic and aliphatics. They occur primarily in petroleum, natural gas, coal, and bitumens.

Hypoxia — Depressed levels of dissolved oxygen in water, usually resulting in decreased metabolism.

Incidental take — Takings that result from, but are not the purpose of, carrying out an otherwise lawful activity (e.g., fishing) conducted by a Federal agency or applicant (see Taking).

Indirect employment — Secondary or supporting oil- and gas-related industries, such as the processing of crude oil and gas in refineries, natural gas plants, and petrochemical plants.

Induced employment — Tertiary industries that are created or supported by the expenditures of employees in the primary or secondary industries (direct and indirect employment), including consumer goods and services such as food, clothing, housing, and entertainment.

Infralittoral — The upper subdivision of the marine sublittoral zone; specifically between low tide and the 100-m isobath.

Infrastructure — The facilities associated with oil and gas development, e.g., refineries, gas processing plants, etc.

Irrutption – in reference to species population, an irregular abrupt increase in population size or density typically associated with favorable changes in the environment and often resulting in the mass movement of the population

Jack-up rig — A barge-like, floating platform with legs at each corner that can be lowered to the sea bottom to raise the platform above the water.

Landfall — The site where a marine pipeline comes to shore.

Lease — Authorization that is issued under Section 8 or maintained under Section 6 of the Outer Continental Shelf Lands Act and that authorizes exploration for, and development and production of, minerals.

Lease sale — The competitive auction of leases granting companies or individuals the right to explore for and develop certain minerals under specified conditions and periods of time.

Lease term — The initial period for oil and gas leases, usually a period of 5, 8, or 10 years depending on water depth or potentially adverse conditions.

Lessee — A party authorized by a lease, or an approved assignment thereof, to explore for and develop and produce the leased deposits in accordance with regulations at 30 CFR 250.

Marshes — Persistent, emergent, nonforested wetlands characterized by predominantly cordgrasses, rushes, and cattails.

Military warning area — An area established by the Department of Defense within which military activities take place.

Minerals — As used in this document, minerals include oil, gas, sulphur, and associated resources, and all other minerals authorized by an Act of Congress to be produced from public lands as defined in Section 103 of the Federal Land Policy and Management Act of 1976.

Nepheloid — A layer of water near the bottom that contains significant amounts of suspended sediment.

Nonattainment area — An area that is shown by monitoring data or by air-quality modeling calculations to exceed primary or secondary ambient air quality standards established by the USEPA.

Nonhazardous oil-field wastes (NOW) — Wastes generated by exploration, development, or production of crude oil or natural gas that are exempt from hazardous waste regulation under the Resource Conservation and Recovery Act (*Regulatory Determination for Oil and Gas and Geothermal Exploration, Development and Production Wastes,* dated June 29, 1988, 53 FR 25446; July 6, 1988). These wastes may contain hazardous substances.

Naturally occurring radioactive materials (NORM) — naturally occurring material that emits low levels of radioactivity, originating from processes not associated with the recovery of radioactive material. The radionuclides of concern in NORM are Radium-226, Radium-228, and other isotopes in the radioactive decay chains of uranium and thorium.

Offloading — Unloading liquid cargo, crude oil, or refined petroleum products.

Operational discharge — Any incidental pumping, pouring, emitting, emptying, or dumping of wastes generated during routine offshore drilling and production activities.

Operator — An individual, partnership, firm, or corporation having control or management of operations on a leased area or portion thereof. The operator may be a lessee, designated agent of the lessee, or holder of operating rights under an approved operating agreement.

Organic matter — Material derived from living plants or animals.

Outer Continental Shelf (OCS) — All submerged lands that comprise the continental margin adjacent to the United States and seaward of State offshore lands.

Pelagic — Of or pertaining to the open sea; associated with open water beyond the direct influence of coastal systems.

Penaeids — Chiefly warm water and tropical prawns belonging to the family Penaeidae.

Plankton — Passively floating or weakly motile aquatic plants (phytoplankton) and animals (zooplankton).

Platform — A steel or concrete structure from which offshore development wells are drilled.

Primary production — Organic material produced by photosynthetic or chemosynthetic organisms.

Produced water — Total water discharged from the oil and gas extraction process; production water or production brine.

Production — Activities that take place after the successful completion of any means for the extraction of resources, including bringing the resource to the surface, transferring the produced resource to shore, monitoring

operations, and drilling additional wells or workovers.

Recoverable reserves — The portion of the identified hydrocarbon or mineral resource that can be economically extracted under current technological constraints.

Recoverable resource estimate — An assessment of hydrocarbon or mineral resources that takes into account the fact that physical and technological constraints dictate that only a portion of resources can be brought to the surface.

Recreational beaches — Frequently visited, sandy areas along the Gulf of Mexico shorefront that support multiple recreational activities at the land-water interface. Included are National Seashores, State Park and Recreational Areas, county and local parks, urban beachfronts, and private resorts.

Refining — Fractional distillation of petroleum, usually followed by other processing (for example, cracking).

Relief — The difference in elevation between the high and low points of a surface.

Reserves — Proved oil or gas resources.

Rig — A structure used for drilling an oil or gas well.

Royalty — A share of the minerals produced from a lease paid in either money or "in-kind" to the landowner by the lessee.

Saltwater intrusion — Saltwater invading a body of freshwater.

Sciaenids — Fishes belonging to the croaker family (Sciaenidae).

Seagrass beds — More or less continuous mats of submerged, rooted, marine, flowering vascular plants occurring in shallow tropical and temperate waters. Seagrass beds provide habitat, including breeding and feeding grounds, for adults and/or juveniles of many of the economically important shellfish and finfish.

Sediment — Material that has been transported and deposited by water, wind, glacier, precipitation, or gravity; a mass of deposited material.

Seeps (hydrocarbon) — Gas or oil that reaches the surface along bedding planes, fractures, unconformities, or fault planes.

Sensitive area — An area containing species, populations, communities, or assemblages of living resources, that is susceptible to damage from normal OCS-related activities. Damage includes interference with established ecological relationships.

Shunting — A method used in offshore oil and gas drilling and production activities where expended cuttings and fluids are discharged through a downpipe, which terminates no more than 10 m from the ocean floor, rather than discharged at the ocean surface.

Structure — Any OCS facility that extends from the seafloor to above the waterline; in petroleum geology, any arrangement of rocks that may hold an accumulation of oil or gas.

Subarea — A discrete analysis area.

Supply vessel — A boat that ferries food, water, fuel, and drilling supplies and equipment to an offshore rig or platform and returns to land with refuse that cannot be disposed of at sea.

Surface convergency lines — An oceanic area in which surface waters of different origins come together and where the denser water sinks beneath the lighter watermass.

Symbiont — Either of two organisms of different species living together in intimate association with each other.

Taking — To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any endangered or threatened species, or to attempt to engage in any such conduct (including actions that induce stress, adversely impact critical habitat, or result in adverse secondary or cumulative impacts). Harrassment is the most common form of taking associated with OCS Program activities.

Tension-leg platform (TLP) — A production structure that consists of a buoyant platform tethered to concrete pilings on the seafloor with flexible cable.

Total dissolved solids — The total amount of solids that are dissolved in water.

Total suspended particulate matter — The total amount of suspended solids in water.

Total suspended solids — The total amount of suspended solids in water.

Trunk line — A large-diameter pipeline receiving oil or gas from many smaller tributary gathering lines that serve a large area; common-carrier line; main line.

Turbidity — Reduced water clarity due to the presence of suspended matter.

Volatile organic compound (VOC) — Any organic compound that is emitted to the atmosphere as a vapor.

Water test areas — Areas within the Eastern Gulf where Department of Defense research, development, and testing of military planes, ships, and weaponry take place.

Weathering (of oil) — The aging of oil due to its exposure to the atmosphere, causing marked alterations in its physical and chemical makeup.