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from any source associated with production, field exploration, drilling, well completion, or well treatment (i.e., produced water, drilling muds, drill cuttings, and produced sand).

[60 FR 33966, June 29, 1995]

Subpart D—Coastal Subcategory

SOURCE: 61 FR 66125, Dec. 16, 1996, unless otherwise noted.

§ 435.40 Applicability; description of the coastal subcategory.

The provisions of this subpart are applicable to those facilities engaged in field exploration, drilling, well production, and well treatment in the oil and gas industry in areas defined as “coastal.” The term “coastal” shall mean:

(a) Any location in or on a water of the United States landward of the inner boundary of the territorial seas; or

(b)(1) Any location landward from the inner boundary of the territorial seas and bounded on the inland side by the line defined by the inner boundary of the territorial seas eastward of the point defined by 89°45' West Longitude and 29°46' North Latitude and continuing as follows west of that point:

Direction to west longitude	Direction to north latitude
West, 89°48'	North, 29°50'
West, 90°12'	North, 30°06'
West, 90°20'	South, 29°35'
West, 90°35'	South, 29°30'
West, 90°43'	South, 29°25'
West, 90°57'	North, 29°32'
West, 91°02'	North, 29°40'
West, 91°14'	South, 29°32'
West, 91°27'	North, 29°37'
West, 91°33'	North, 29°46'
West, 91°46'	North, 29°50'
West, 91°50'	North, 29°55'
West, 91°56'	South, 29°50'
West, 92°10'	South, 29°44'
West, 92°55'	North, 29°46'
West, 93°15'	North, 30°14'
West, 93°49'	South, 30°07'
West, 94°03'	South, 30°03'
West, 94°10'	South, 30°00'
West, 94°20'	South, 29°53'
West, 95°00'	South, 29°35'
West, 95°13'	South, 29°28'
East, 95°08'	South, 29°15'
West, 95°11'	South, 29°08'
West, 95°22'	South, 28°56'
West, 95°30'	South, 28°55'
West, 95°33'	South, 28°49'
West, 95°40'	South, 28°47'
West, 96°42'	South, 28°41'

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Direction to west longitude	Direction to north latitude
East, 96°40'	South, 28°28'
West, 96°54'	South, 28°20'
West, 97°03'	South, 28°13'
West, 97°15'	South, 27°58'
West, 97°40'	South, 27°45'
West, 97°46'	South, 27°28'
West, 97°51'	South, 27°22'
East, 97°46'	South, 27°14'
East, 97°30'	South, 26°30'
East, 97°26'	South, 26°11'

(2) East to 97°19' West Longitude and Southward to the U.S.-Mexican border.

§ 435.41 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

(b) *Average of daily values for 30 consecutive days* means the average of the daily values obtained during any 30 consecutive day period.

(c) *Base fluid* means the continuous phase or suspending medium of a drilling fluid formulation.

(d) *Base fluid retained on cuttings* as applied to BAT effluent limitations and NSPS refers to the American Petroleum Institute Recommended Practice 13B-2 supplemented with the specifications, sampling methods, and averaging method for retention values provided in Appendix 7 of subpart A of this part.

(e) *Biodegradation rate* as applied to BAT effluent limitations and NSPS for drilling fluids and drill cuttings refers to the ISO 11734:1995 method: “Water quality—Evaluation of the ‘ultimate’ anaerobic biodegradability of organic compounds in digested sludge—Method by measurement of the biogas production (1995 edition)” (Available from the American National Standards Institute, 11 West 42nd Street, 13th Floor, New York, NY 10036) supplemented with modifications in Appendix 4 of subpart A of this part.

(f) *Cook Inlet* refers to coastal locations north of the line between Cape Douglas on the West and Port Chatham on the east.

(g) *Daily values* as applied to produced water effluent limitations and NSPS means the daily measurements used to assess compliance with the maximum for any one day.

(h) *Deck drainage* means any waste resulting from deck washings, spillage, rainwater, and runoff from gutters and drains including drip pans and work areas within facilities subject to this Subpart.

(i) *Development facility* means any fixed or mobile structure subject to this Subpart that is engaged in the drilling of productive wells.

(j) *Dewatering effluent* means wastewater from drilling fluids and drill cuttings dewatering activities (including but not limited to reserve pits or other tanks or vessels, and chemical or mechanical treatment occurring during the drilling solids separation/recycle/disposal process).

(k) *Diesel oil* refers to the grade of distillate fuel oil, as specified in the American Society for Testing and Materials Standard Specification for Diesel Fuel Oils D975-91, that is typically used as the continuous phase in conventional oil-based drilling fluids. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103. Copies may be inspected at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC. A copy may also be inspected at EPA's Water Docket, 401 M Street SW., Washington, DC 20460.

(l) *Domestic waste* means the materials discharged from sinks, showers, laundries, safety showers, eye-wash stations, hand-wash stations, fish cleaning stations, and galleys located within facilities subject to this Subpart.

(m) *Drill cuttings* means the particles generated by drilling into subsurface geologic formations and carried out from the wellbore with the drilling fluid. Examples of drill cuttings include small pieces of rock varying in size and texture from fine silt to gravel. Drill cuttings are generally generated from solids control equipment and settle out and accumulate in quiescent areas in the solids control equipment or other equipment processing drilling fluid (i.e., accumulated solids).

(1) *Wet drill cuttings* means the unaltered drill cuttings and adhering drilling fluid and formation oil carried out from the wellbore with the drilling fluid.

(2) *Dry drill cuttings* means the residue remaining in the retort vessel after completing the retort procedure specified in Appendix 7 of subpart A of this part.

(n) *Drilling fluid* means the circulating fluid (mud) used in the rotary drilling of wells to clean and condition the hole and to counterbalance formation pressure. Classes of drilling fluids are:

(1) *Water-based drilling fluid* means the continuous phase and suspending medium for solids is a water-miscible fluid, regardless of the presence of oil.

(2) *Non-aqueous drilling fluid* means the continuous phase and suspending medium for solids is a water-immiscible fluid, such as oleaginous materials (e.g., mineral oil, enhanced mineral oil, paraffinic oil, C₁₆-C₁₈ internal olefins, and C₈-C₁₆ fatty acid/2-ethylhexyl esters).

(i) *Oil-based* means the continuous phase of the drilling fluid consists of diesel oil, mineral oil, or some other oil, but contains no synthetic material or enhanced mineral oil.

(ii) *Enhanced mineral oil-based* means the continuous phase of the drilling fluid is enhanced mineral oil.

(iii) *Synthetic-based* means the continuous phase of the drilling fluid is a synthetic material or a combination of synthetic materials.

(o) *Enhanced mineral oil* as applied to enhanced mineral oil-based drilling fluid means a petroleum distillate which has been highly purified and is distinguished from diesel oil and conventional mineral oil in having a lower polycyclic aromatic hydrocarbon (PAH) content. Typically, conventional mineral oils have a PAH content on the order of 0.35 weight percent expressed as phenanthrene, whereas enhanced mineral oils typically have a PAH content of 0.001 or lower weight percent PAH expressed as phenanthrene.

(p) *Exploratory facility* means any fixed or mobile structure subject to this Subpart that is engaged in the

drilling of wells to determine the nature of potential hydrocarbon reservoirs.

(q) *Formation oil* means the oil from a producing formation which is detected in the drilling fluid, as determined by the GC/MS compliance assurance method specified in Appendix 5 of subpart A of this part when the drilling fluid is analyzed before being shipped offshore, and as determined by the RPE method specified in Appendix 6 of subpart A of this part when the drilling fluid is analyzed at the offshore point of discharge. Detection of formation oil by the RPE method may be confirmed by the GC/MS compliance assurance method, and the results of the GC/MS compliance assurance method shall supercede those of the RPE method.

(r) *Garbage* means all kinds of victual, domestic, and operational waste, excluding fresh fish and parts thereof, generated during the normal operation of coastal oil and gas facility and liable to be disposed of continuously or periodically, except dishwater, graywater, and those substances that are defined or listed in other Annexes to MARPOL 73/78. A copy of MARPOL may be inspected at EPA's Water Docket; 1200 Pennsylvania Ave., NW., Washington, DC 20460.

(s) *M9IM* means those offshore facilities continuously manned by nine (9) or fewer persons or only intermittently manned by any number of persons.

(t) *M10* means those offshore facilities continuously manned by ten (10) or more persons.

(u) *Maximum* as applied to BAT effluent limitations and NSPS for drilling fluids and drill cuttings means the maximum concentration allowed as measured in any single sample of the barite for determination of cadmium and mercury content.

(v) *Maximum for any one day* as applied to BPT, BCT and BAT effluent limitations and NSPS for oil and grease in produced water means the maximum concentration allowed as measured by the average of four grab samples collected over a 24-hour period that are analyzed separately. Alternatively, for BAT and NSPS the maximum concentration allowed may be determined on the basis of physical

composition of the four grab samples prior to a single analysis.

(w) *Minimum* as applied to BAT effluent limitations and NSPS for drilling fluids and drill cuttings means the minimum 96-hour LC₅₀ value allowed as measured in any single sample of the discharged waste stream. *Minimum* as applied to BPT and BCT effluent limitations and NSPS for sanitary wastes means the minimum concentration value allowed as measured in any single sample of the discharged waste stream.

(x)(1) *New source* means any facility or activity of this subcategory that meets the definition of "new source" under 40 CFR 122.2 and meets the criteria for determination of new sources under 40 CFR 122.29(b) applied consistently with all of the following definitions:

(i) *Water area* as used in "site" in 40 CFR 122.29 and 122.2 means the water area and water body floor beneath any exploratory, development, or production facility where such facility is conducting its exploratory, development or production activities.

(ii) *Significant site preparation work* as used in 40 CFR 122.29 means the process of surveying, clearing or preparing an area of the water body floor for the purpose of constructing or placing a development or production facility on or over the site.

(2) "New Source" does not include facilities covered by an existing NPDES permit immediately prior to the effective date of these guidelines pending EPA issuance of a new source NPDES permit.

(y) *No discharge of free oil* means that waste streams may not be discharged that contain free oil as evidenced by the monitoring method specified for that particular stream, e.g., deck drainage or miscellaneous discharges cannot be discharged when they would cause a film or sheen upon or discoloration of the surface of the receiving water; drilling fluids or cuttings may not be discharged when they fail the static sheen test defined in Appendix 1 of subpart A of this part.

(z) Parameters that are regulated in this subpart and listed with approved methods of analysis in Table 1B at 40 CFR 136.3 are defined as follows:

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- (1) *Cadmium* means total cadmium.
- (2) *Chlorine* means total residual chlorine.
- (3) *Mercury* means total mercury.
- (4) *Oil and Grease* means total recoverable oil and grease.
 - (aa) *Produced sand* means the slurried particles used in hydraulic fracturing, the accumulated formation sands and scales particles generated during production. Produced sand also includes desander discharge from the produced water waste stream, and blowdown of the water phase from the produced water treating system.
 - (bb) *Produced water* means the water (brine) brought up from the hydrocarbon-bearing strata during the extraction of oil and gas, and can include formation water, injection water, and any chemicals added downhole or during the oil/water separation process.
 - (cc) *Production facility* means any fixed or mobile structure subject to this subpart that is either engaged in well completion or used for active recovery of hydrocarbons from producing formations. It includes facilities that are engaged in hydrocarbon fluids separation even if located separately from wellheads.
 - (dd) *Sanitary waste* means the human body waste discharged from toilets and urinals located within facilities subject to this subpart.
 - (ee) *SPP toxicity* as applied to BAT effluent limitations and NSPS for drilling fluids and drill cuttings refers to the bioassay test procedure presented in Appendix 2 of subpart A of this part.
 - (ff) *Static sheen test* means the standard test procedure that has been developed for this industrial subcategory for the purpose of demonstrating compliance with the requirement of no discharge of free oil. The methodology for performing the static sheen test is presented in Appendix 1 of subpart A of this part.
 - (gg) *Stock barite* means the barite that was used to formulate a drilling fluid.
 - (hh) *Synthetic material* as applied to synthetic-based drilling fluid means material produced by the reaction of specific purified chemical feedstock, as opposed to the traditional base fluids such as diesel and mineral oil which are derived from crude oil solely

through physical separation processes. Physical separation processes include fractionation and distillation and/or minor chemical reactions such as cracking and hydro processing. Since they are synthesized by the reaction of purified compounds, synthetic materials suitable for use in drilling fluids are typically free of polycyclic aromatic hydrocarbons (PAH's) but are sometimes found to contain levels of PAH up to 0.001 weight percent PAH expressed as phenanthrene. Internal olefins and vegetable esters are two examples of synthetic materials suitable for use by the oil and gas extraction industry in formulating drilling fluids. Internal olefins are synthesized from the isomerization of purified straight-chain (linear) hydrocarbons such as C₁₆-C₁₈ linear alpha olefins. C₁₆-C₁₈ linear alpha olefins are unsaturated hydrocarbons with the carbon to carbon double bond in the terminal position. Internal olefins are typically formed from heating linear alpha olefins with a catalyst. The feed material for synthetic linear alpha olefins is typically purified ethylene. Vegetable esters are synthesized from the acid-catalyzed esterification of vegetable fatty acids with various alcohols. EPA listed these two branches of synthetic fluid base materials to provide examples, and EPA does not mean to exclude other synthetic materials that are either in current use or may be used in the future. A synthetic-based drilling fluid may include a combination of synthetic materials.

(ii) *Well completion fluids* means salt solutions, weighted brines, polymers, and various additives used to prevent damage to the well bore during operations which prepare the drilled well for hydrocarbon production.

(jj) *Well treatment fluids* means any fluid used to restore or improve productivity by chemically or physically altering hydrocarbon-bearing strata after a well has been drilled.

(kk) *Workover fluids* means salt solutions, weighted brines, polymers, or other specialty additives used in a producing well to allow for maintenance, repair or abandonment procedures.

(ll) *96-hour LC₅₀* means the concentration (parts per million) or percent of the suspended particulate phase (SPP)

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from a sample that is lethal to 50 percent of the test organisms exposed to that concentration of the SPP after 96 hours of constant exposure.

[61 FR 66125, Dec. 16, 1996; 62 FR 1681, Jan. 13, 1997, as amended at 66 FR 6914, Jan. 22, 2001]

§ 435.42 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30-125.32, any existing point source subject to this Subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

BPT EFFLUENT LIMITATIONS—OIL AND GREASE
[In milligrams per liter]

Pollutant parameter waste source	Maximum for any 1 day	Average of values for 30 consecutive days shall not exceed	Residual chlorine minimum for any 1 day
Produced water	72	48	NA
Deck drainage	(1)	(1)	NA
Water-based:			
Drilling fluids	(1)	(1)	NA
Drill Cuttings	(1)	(1)	NA
Non-aqueous:			
Drilling fluids	No discharge	No discharge	NA
Drill Cuttings	(1)	(1)	NA
Well treatment, workover, and completion fluids	(1)	(1)	NA
Sanitary:			
M10	NA	NA	≥ 1
M9IM ³	NA	NA	NA
Domestic ³	NA	NA	NA
Produced sand	Zero discharge	Zero discharge	NA

¹ No discharge of free oil.
² Minimum of 1 mg/l and maintained as close to this concentration as possible.
³ There shall be no floating solids as a result of the discharge of these wastes.

[61 FR 66125, Dec. 16, 1996, as amended at 66 FR 6916, Jan. 22, 2001]

§ 435.43 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

ject to this Subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

Except as provided in 40 CFR 125.30-125.32, any existing point source sub-

BAT EFFLUENT LIMITATIONS

Stream	Pollutant parameter	BAT effluent limitations
Produced Water:		
(A) All coastal areas except Cook Inlet	No discharge.
(B) Cook Inlet	Oil & Grease	The maximum for any one day shall not exceed 42 mg/l, and the 30-day average shall not exceed 29 mg/l.
Drilling Fluids, Drill Cuttings, and Dewatering Effluent: ¹		
(A) All coastal areas except Cook Inlet	No discharge.
(B) Cook Inlet:		
Water-based drilling fluids, drill cuttings, and dewatering effluent.	SPP Toxicity	Minimum 96-hour LC ₅₀ of the SPP Toxicity Test ⁴ shall be 3% by volume.
	Free oil	No discharge. ²