

STATE OF ALASKA

ALASKA OIL AND GAS CONSERVATION
COMMISSION

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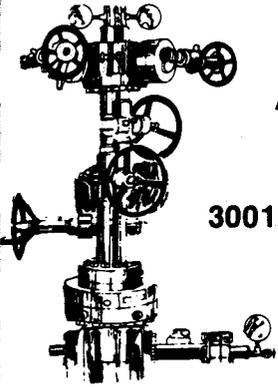
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REGULATIONS
Alaska Administrative Code
Title 20 - Chapter 25



April 2, 1986

THIS PUBLICATION IS A COMPILATION OF BASIC REGULATORY DOCUMENTS WHICH PERTAIN TO THE ACTIVITIES OF THE ALASKA OIL AND GAS CONSERVATION COMMISSION.

- ALASKA OIL AND GAS REGULATIONS
These govern drilling, abandonment, plugging, production practices and recovery methods in Alaska.
- FORMS REQUIRED BY THE COMMISSION
- FEDERAL LAWS ADMINISTERED BY THE COMMISSION
- OIL AND GAS CONSERVATION ACT STATUTES
These describe the organization and operations of the Commission.

TABLE OF CONTENTS

REGULATIONS - Alaska Administrative Code Title 20, Chapter 25

ARTICLE 1. DRILLING

Section	Page No.
005. Permit to drill	1
010. Re-entry of suspended well	2
015. Changes to drilling permit	3
020. Designation of operator	3
022. Change of ownership	3
025. Bonding	3
026. Claims	4
030. Casing and cementing	4
033. Primary well control	7
035. Blowout prevention equipment	8
040. Well identification	11
047. Reserve Pits	11
050. Deviation	12
055. Well spacing	13
061. Well site surveys	14
065. Hydrogen sulfide	14
070. Records and reports	15
071. Geologic data and logs	15
072. Shutdown of well operations	16
075. Other wells in designated areas	16

ARTICLE 2. ABANDONMENT AND PLUGGING

105. Abandonment and plugging requirements	16
110. Suspended wells	19
120. Well abandonment marker	19
140. Water wells	20
170. Onshore location clearance	20
172. Offshore location clearance	21

ARTICLE 3. PRODUCTION PRACTICES

200. Surface equipment	22
205. Notification of accidental loss of oil or gas ...	22
210. Multiple completion of wells	22
215. Commingling of production	22
225. Capacity of gas wells	22
228. Production measurement equipment	23
230. Production measurement	23
235. Gas utilization	24
240. Gas-oil ratios	24
245. Common production facilities	25
252. Underground disposal	25

ARTICLE 3. PRODUCTION PRACTICES (cont)

Section	Page No.
260. Illegal production	26
265. Automatic shut-in equipment	26
270. Bottom hole pressures	27
275. Reservoir fluid properties	27
280. Workover operations	27
285. Blowout prevention equipment	28

ARTICLE 4. REPORTS

300. Request for additional information	28
310. Books and records	28
320. Filing of forms	28

ARTICLE 5. ADDITIONAL RECOVERY METHODS

402. Enhanced recovery	29
412. Injection well casing	30
420. Notice of injection	31
430. Enhanced recovery records	31
432. Injection reports	31
440. Freshwater exemption	31
450. Underground injection variances	32
460. Area injection orders	32

ARTICLE 6. GENERAL PROVISIONS

505. Scope of regulations	33
507. Change of program	33
510. Commission office, hours and seal	33
515. U.S. Government leases	33
517. Integration of interests	33
520. Field and pool regulation and classification	34
526. Fire hazard	34
528. Open pit storage	34
530. Cooperation with other parties	34
534. Tests and remedial measures	34
537. Public and confidential well information	35
540. Hearings	36
545. Public mailing lists	36
550. Oaths	37
557. Subpoenas	37
570. Definitions	37

FORMS

	Page No.
Permit to Drill (10-401).....	41
Bond (10-402).....	42
Application for Sundry Approvals (10-403).....	43
Report of Sundry Well Operations (10-404).....	44
Monthly Production Report (10-405).....	45
Instructions	46
Monthly Injection Report (10-406).....	47
Instructions	48
Well Completion or Recompletion Report and Log(10-407)	49
Instructions	50
Well Status Report and Gas-Oil Ratio Tests (10-409)	51
Instructions	52
Designation of Operator (10-411).....	53
Reservoir Pressure Report (10-412).....	55
Instructions	56
Report of Injection Project (10-413).....	57
Notice of Change of Ownership (10-417).....	58
Gas Well Open Flow Potential Tests Report (10-421)..	59
Definitions of Symbols	60
Producer's Report of Gas Disposition (10-422).....	61
Application for Determination of the Maximum Lawful Price Under NGPA (FERC-121).....	63
Supplementary Information for NGPA Determination Procedures	65
Check List for Section 102(c)(1)(B), New Onshore Well	66
Check List for Section 102(c)(1)(C), New Onshore Reservoir	67
Check List for Section 103(c), New Onshore Production Well	68

ADMINISTRATION OF FEDERAL LAWS

Natural Gas Policy Act Determination Procedures ..	69
Authorized Jurisdictional Agency for Applications of Tertiary Recovery Projects Under the Crude Oil Windfall Profits Tax Act of 1980	71

ALASKA STATUTES

Section

Page No.

TITLE 31, Chapter 05. Alaska Oil and Gas Conservation Act	73
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Article 1. Administration.

05. Alaska Oil and Gas Conservation Commission created	74
07. Terms of office; vacancy; removal	74
09. Qualifications of members	74
11. Quorum	75
13. Oath of office	75
15. Compensation of members of the commission	75
17. Principal office; seal	75
21. Legal Counsel	75
23. Commission staff	75
25. Conflict of interest	76
26. Relationship to Department of Natural Resources	76
27. Land subject to commission's authority	76
30. Powers and duties of commission	77
35. Confidential reports	78
40. Regulations and orders	80
50. Notice	80
60. Action by commission	80
70. Attendance and testimony of witnesses	81
80. Rehearings and appeals	82

Article 2. Regulation of Operations

90. Permits and fees to drill wells	83
95. Waste prohibited	83
100. Establishment of drilling units for pools	84
110. Unitization and unitized operations of pools and integration of interests by agreement	86
120. Use of gas from well to manufacture carbon products without permit is prima facie waste.	92

Article 3. General Provisions

150. Penalties	92
160. Injunctive relief	93
170. Definitions	94

**CHAPTER 25.
ALASKA OIL AND GAS
CONSERVATION COMMISSION**

Editor's Note: This chapter is based on the former regulations of the Division of Oil and Gas Conservation formerly located in 11 AAC 22.

Article

- 1. Drilling
(20 AAC 25.005-20 AAC 25.075)
- 2. Abandonment and Plugging
(20 AAC 25.105-20 AAC 25.172)
- 3. Production Practices
(20 AAC 25.200-20 AAC 25.285)
- 4. Reports
(20 AAC 25.300-20 AAC 25.320)
- 5. Enhanced Recovery
(20 AAC 25.400-20 AAC 25.460)
- 6. General Provisions
(20 AAC 25.505-20 AAC 25.570)

**ARTICLE 1.
DRILLING**

Section

- 05. Permit to drill
- 10. Re-entry of a suspended well
- 15. Changes to drilling permit
- 20. Designation of operator
- 22. Change of ownership
- 25. Bonding
- 26. Claims
- 30. Casing and cementing
- 33. Primary well control: drilling fluid program and drilling fluid surface system
- 35. Secondary well control: blowout prevention equipment (BOPE) requirements
- 40. Well identification
- 45. (Repealed)
- 47. Reserve pits
- 50. Deviation
- 55. Drilling units and well spacing
- 61. Well site surveys
- 65. Hydrogen sulfide
- 70. Records and reports
- 71. Geologic data and logs
- 72. Shutdown of well operations
- 75. Other wells in designated areas

20 AAC 25.005. PERMIT TO DRILL. (a) An application for a Permit to Drill (Form 10-401)

must be submitted to the commission, and approved, before drilling, re-drilling, or deepening the following types of wells:

- (1) exploratory;
 - (2) development;
 - (3) service; and
 - (4) stratigraphic test.
- (b) An application for a Permit to Drill must be submitted to the commission, and approved, before the re-entry of an abandoned well.
- (c) The application for a Permit to Drill must be accompanied by the following:
- (1) a fee of \$100 payable to the State of Alaska, Department of Revenue;
 - (2) a plat identifying the property and showing the coordinates of the proposed surface, top of the objective formation and bottom-hole location referenced to governmental section lines;
 - (3) a diagram and description of the BOP equipment to be used, as required by 20 AAC 25.035(a)(1), and the pressure information required in 20 AAC 25.035(d)(2);
 - (4) a complete proposed casing and cementing program as required in 20 AAC 25.030;
 - (5) a diagram and description of the diverter system to be used as specified in 20 AAC 25.035(b), unless this requirement is waived by the commission;
 - (6) a drilling fluid program, a schematic diagram and description of the drilling fluid system to be used, and the information required in 20 AAC 25.033;
 - (7) for exploratory and stratigraphic test wells, a tabulation setting out the depths of predicted overpressured strata as required by 20 AAC 25.033(e); and
 - (8) for exploratory and stratigraphic test wells, a seismic refraction or reflection analysis as required by 20 AAC 25.061(a);

(9) for offshore wells drilled from a mobile bottom-founded, jack-up, or floating unit, an analysis of seabed conditions as required by 20 AAC 25.061(b); and

(10) a copy of the proposed drilling program.

(d) For a well that is to be intentionally deviated, the requirements of 20 AAC 25.050(b) must be met.

(e) Each hole drilled below the conductor casing, unless drilled solely to straighten the original hole, sidetrack junk, or correct mechanical difficulties, is a separate well requiring a Permit to Drill. To provide for continuous operation, the commission will verbally approve the permit to drill the separate well; however, an application for a Permit to Drill (Form 10-401) for the separate well must be submitted on the commission's next working day.

(f) Each well must be identified by a name and number which is unique.

(g) Information must be submitted at the time of filing the application for a Permit to Drill regarding a bond, as required by 20 AAC 25.025.

(h) If actual drilling operations are not commenced within 24 months after issuance, the drilling permit expires.

(i) A drilling permit is not valid at a location where the applicant does not have a right to drill for, produce, and remove oil and gas.

(j) A survey plat certified by a registered land surveyor showing the precise surface location must be submitted before the completion or abandonment of the well. Only the first well drilled from a fixed platform or a multiple-well site must have a certified survey. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030
AS 31.05.090

20 AAC 25.010. RE-ENTRY OF A SUSPENDED WELL. (a) If a suspended well is to be re-entered to conduct completion operations, the operator shall submit the form entitled Application for Sundry Approvals (Form

10-403) for commission approval. The Form 10-403 filing must set out the current condition of the well and the proposed program for completion operations.

(b) If a suspended well is to be re-entered to conduct actual drilling operations, the operator shall submit the form entitled Permit to Drill (Form 10-401) for commission approval in conformance with 20 AAC 25.005.

(c) The operator shall file with the commission within 30 days after completion, abandonment, or suspension of the well a Well Completion or Recompletion Report (Form 10-407) and all information required by 20 AAC 25.070 and 20 AAC 25.071. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030
AS 31.05.090

20 AAC 25.015. CHANGES TO DRILLING PERMIT. (a) For a proposed change in a drilling permit or a filing required for a drilling permit by 20 AAC 25.005(c) before the start of actual drilling operations, an operator

(1) shall notify the commission of the proposed change;

(2) shall submit a new application for a Permit to Drill (Form 10-401) if required; however no additional fee is required;

(3) shall file a revised plat as described in 20 AAC 25.005(c)(2) if the surface location is changed; and

(4) must obtain the approval of the commission.

(b) For a proposed change in a drilling permit or a filing required for the drilling permit by 20 AAC 25.005(c) after actual drilling operations have started, an operator shall

(1) to change the bottom-hole location, submit a new Permit to Drill (Form 10-401) application, in accordance with 20 AAC 25.050(b), accompanied by a fee of \$100, to the commission for approval; and

(2) for other changes, submit the form en-

titled Application for Sundry Approvals (Form 10-403) to the commission for approval; the Form 10-403 filing must set out the current condition of the well and the proposed changes; in cases where prompt approval is needed, verbal approval may be requested from the commission or its representative; if verbal approval is obtained, the name of the commission member or its representative who provided verbal approval, and the date of the approval, must be included on the Form 10-403 submitted on the commission's next working day. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030
AS 31.05.090

20 AAC 25.020. DESIGNATION OF OPERATOR. If an owner of a property wishes to relinquish the role of operator, or designate a new operator for the property, the owner shall submit to the commission for approval a Designation of Operator (Form 10-411). The newly designated operator must signify acceptance of the obligations as operator on the same Form 10-411 and must furnish a bond as provided for in 20 AAC 25.025. The commission's acceptance of the designated operator's bond constitutes the release of the owner's or former operator's bonding obligation for the property indicated on the Form 10-411. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.022. CHANGE OF OWNERSHIP. A person who is the operator of a property on which operations subject to this chapter have been proposed to the commission or are being conducted, shall file a Notice of Change of Ownership (Form 10-417) within 15 days after conveyance, each time that an owner or landowner, as defined by AS 31.05.170, conveys all or a partial interest in the property to another person. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.025. BONDING. (a) The commission will require from the operator an appropriate bond and the filing of Bond (Form 10-402) to ensure that each well is operated, maintained, repaired, and abandoned in accordance with this chapter.

(b) The bond required in (a) of this section

must be either a single-well bond of not less than \$100,000, or a blanket bond of not less than \$200,000, in favor of the Alaska Oil and Gas Conservation Commission.

(c) The bond must be by a

(1) corporate surety authorized to do business in Alaska; or

(2) certificate of deposit issued in sole favor of the Alaska Oil and Gas Conservation Commission from a bank authorized to do business in Alaska; a certificate of deposit may not be rolled over without prior commission approval.

(d) A bond must remain in effect until the abandonment of all wells covered by the bond and final clearance of well sites are approved by the commission. The bond then will be released by the commission upon written request of the operator. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.026. CLAIMS. Commission approval of the abandonment of a well and the release of the bond, required by sec. 25 of this chapter, constitutes a presumption of proper abandonment, but does not relieve an operator of further claim by the commission after the abandonment. (Eff. 4/13/80, Reg. 74)

Authority: AS 31.05.030

20 AAC 25.030. CASING AND CEMENTING. (a) For each type of well listed in 20 AAC 25.005(a), a complete proposed casing and cementing program must be submitted on the application for the Permit to Drill (Form 10-401). Unless modified or altered by special pool rules, each casing program must be designed to

(1) provide suitable and safe operating conditions for the total measured depth proposed;

(2) confine fluids to the well bore;

(3) prevent migration of fluids from one stratum to another;

(4) assure control of well pressures encountered;

(5) protect from thaw subsidence and freeze-back effects within permafrost;

(6) prevent contamination of freshwater; and

(7) provide well control until the next casing is set; all pertinent factors for well control should be considered, including formation fracture gradients, formation pressures, casing setting depths, and proposed total depth.

(b) The following requirements apply to all offshore wells drilled from a mobile bottom-founded, jack-up, or floating drilling unit.

(1) structural casing must be set by driving, jetting, or drilling to a minimum depth of 100 feet below the mud line.

(2) conductor casing must be set at least 300 feet, but not more than 1000 feet, below the mud line; the casing must be cemented with a quantity of cement sufficient to fill the annular space up to the mud line or to the top of the casing when the blowout prevention stack is placed in an excavation or glory hole. Cement fill must be verified by observation or other means approved by the commission. Upon approval of the commission, cement may be washed out to a depth not exceeding the depth of the structural casing shoe, to facilitate casing removal upon well abandonment.

(3) after drilling no more than 10 feet of new formation, a pressure test must be obtained by testing to formation leak-off to aid in determining a formation fracture gradient. The results of this test and any subsequent tests of the formation must be recorded as required by 20 AAC 25.070(a)(1).

(4) surface casing and subsequent casing must be set and cemented in accordance with (d)(2), (3), (4), and (5) of this section.

(c) The following requirements apply to all beach or offshore wells drilled from a fixed structure, an artificially constructed gravel island, or a historically shifting natural island.

(1) structural casing must be set by driving, jetting, or drilling to a minimum depth of 100 feet below the mud line datum. The mud line

datum is the depth of the mud line as it occurred before construction of a structure from which to drill. The mud line datum for a beach well is the plane of mean low water depth extended beneath the well site. The mud line datum for a shifting natural island is the depth at which a horizontal plane constructed through the toe of the island slope intersects the well bore.

(2) conductor casing must be set at least 300 feet, but not more than 1000 feet, below the mud line, and cemented with a quantity of cement to fill the annular space up to the surface or rig grade. Cement fill must be verified by observation of cement return. Upon approval of the commission, the cement may be washed out to a depth not exceeding the depth of the structural casing shoe to facilitate casing removal upon well abandonment.

(3) after drilling no more than 10 feet of new formation, a pressure test must be obtained by testing to formation leak-off to aid in determining a formation fracture gradient. The results of this test and any subsequent test of the formation must be recorded as required by 20 AAC 25.070(a)(1).

(4) surface casing and subsequent casing must be set and cemented in accordance with (d)(2), (3), (4), and (5) of this section.

(d) The following requirements apply to all onshore wells and wells drilled offshore from historically stable islands.

(1) Conductor casing.

(A) the casing must be set at a depth sufficient to provide anchorage for a diverter system.

(B) the casing must be set by drilling, driving, or jetting. If the hole is drilled, sufficient cement must be used to fill the annular space to the surface.

(2) Surface casing.

(A) setting depth must be below the base of all water-bearing strata known or reasonably expected to serve as a source of drink-

ing water and below the base of permafrost, at a depth that will insure good anchorage to prevent blowouts or uncontrolled flow.

(B) the casing must be set into a competent stratum and cemented with sufficient cement in the annulus to circulate to the surface. If cement does not circulate to the surface, the open annulus must be cemented to the surface before drilling ahead. If the well is offshore or on a beach, sufficient cement must be used to bring the top of the cement to the rig grade; however, if drilling is from a mobile bottom-founded, jack-up, or floating vessel, the top of the cement must be brought to the mudline. Cement fill must be verified by observation or other means approved by the commission. Cement may be washed out to a depth not exceeding 100 feet above the conductor casing shoe for beach or offshore wells, to facilitate casing removal upon well abandonment.

(C) the surface casing must be tested in accordance with (g) of this section and recorded as required by 20 AAC 25.070(a)(1).

(D) after drilling no more than 10 feet of new formation, a pressure test must be obtained by testing either to formation leak-off or to a predetermined equivalent mud weight to aid in determining a formation fracture gradient. The results of this test and any subsequent tests of the formation must be recorded as required by 20 AAC 25.070(a)(1).

(3) Intermediate casing.

(A) the casing must be set and cemented when required to maintain primary well control.

(B) under normal conditions drilling may continue until the mud weight has been increased to a point not exceeding 0.5 pounds per gallon less than the equivalent mud weight of the most recent pressure test of the formation below the surface casing shoe.

(C) a sufficient quantity of cement must

be used to provide annular fill-up to a minimum of 500 feet above all significant hydrocarbon zones and abnormal pressure intervals; in cases where zonal coverage is not required, a minimum fill up of 500 feet of cement above the casing shoe is required.

(D) if freshwater sands are encountered below the shoe of the surface casing, the casing must be cemented in a manner that is satisfactory to the commission, and that will ensure that no movement of fluids will occur into sources of freshwater.

(E) casing must be tested in accordance with (g) of this section and recorded as required by 20 AAC 25.070(a)(1).

(F) after drilling no more than 10 feet of new formation, a pressure test must be obtained by testing either to formation leak-off or to a predetermined equivalent mud weight, to aid in determining a formation fracture gradient. The results of this test, and any subsequent tests of the formation, must be recorded as required by 20 AAC 25.070(a)(1).

(4) Production casing.

(A) the casing may be set and cemented through, into or just above the production interval.

(B) cementing practices must be the same as that for intermediate casing in accordance with (3)(C) and (D) of this subsection.

(C) casing must be tested in accordance with (g) of this section and recorded as required by 20 AAC 25.070(a)(1).

(5) Liners.

(A) liners may be set and cemented as an extension of intermediate or production casing or hung through the productive interval from production casing.

(B) a cemented liner must have a minimum of 100 feet of cemented lap within the next larger casing. Other cementing practices must be the same as that for intermediate casing.

(C) before drilling ahead, a cemented liner and lap must be tested, in accordance with (g) of this section, to determine that a seal between the liner top and next larger casing has been achieved. The test must be recorded as required by 20 AAC 25.070(a)(1).

(D) if a cemented liner is drilled through, a pressure test must be obtained after drilling no more than 10 feet of new formation by testing to formation leak-off or to a predetermined equivalent mud weight, to aid in determining a formation fracture gradient. The results of this test, and any subsequent test of the formation, must be recorded as required by 20 AAC 25.070(a)(1).

(e) With the exception of conductor casing, in casing required by (d) of this section, cement must not be drilled until a minimum compressive strength of 300 psig at bottom-hole conditions has been attained according to the manufacturer's cement strength tables for the particular cement being used.

(f) Within permafrost intervals, fluids that have a freezing point above the minimum permafrost temperature must not be left in annuli or inside the casing upon completion, suspension, or shutdown of well operations without commission approval.

(g) Pressure Testing of Casing and Casing Surveys.

(1) with the exception of structural and conductor casing, before drilling out the casing or liner after cementing, all casing, liners, and liner laps must be tested to a surface pressure of 1500 psig, or 0.25 psi/ft multiplied by the true vertical depth of the casing shoe, whichever is greater; however, surface pressure must not subject the casing to a hoop stress that will exceed 70 percent of the minimum yield strength of the casing. If the pressure declines more than 10 percent in 30 minutes, or if there are indications of improper cementing, such as lost returns, cement channeling, or mechanical failure of equipment, corrective measures must be taken.

(2) when, in the commission's discretion, casing is subjected to prolonged actual drilling

operations the casing must be pressure tested, calipered or otherwise evaluated by a method approved by the commission.

(3) for injection wells, a cement bond log must be obtained following the primary cementing of all casing that is 9-5/8 inches or less in diameter, and sufficient notice of pressure tests required by (1) of this subsection must be given, so that a representative of the commission may witness the test.

(h) Upon request of the operator, the commission will, in its discretion, approve variances from the requirements of this section to allow for special or unusual conditions. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.033. PRIMARY WELL CONTROL: DRILLING FLUID PROGRAM AND DRILLING FLUID SURFACE SYSTEM. (a) For each type of well listed in 20 AAC 25.005 (a), a proposed drilling fluid program and a schematic diagram with a list of equipment for a drilling fluid system designed to prevent the loss of primary well control must be submitted with the application for the Permit to Drill (Form 10-401). Unless modified or amended by pool rules adopted in accordance with 20 AAC 25.520, each drilling fluid program and drilling fluid system must be designed to provide and maintain

(1) a drilling fluid of sufficient density to overbalance the pressure of formations penetrated and compensate for static pressure reduction upon withdrawal of drilling assembly from the well bore;

(2) a drilling fluid of gel strength sufficiently low to mitigate a bottom-hole static pressure surge upon running drilling assembly into the well bore;

(3) a drilling fluid with as low a viscosity as practical to enhance the drop out of solids and the escape of any entrained gas; and

(4) a drilling fluid system with a volumetric capacity for drilling fluid reserves appropriate for the volume of the well bore.

(b) The drilling fluid system must be equipped with

(1) an operable degasser to be maintained for use through the drilling and completion of the well;

(2) equipment appropriate for drilling fluid solids control;

(3) a shaker screen sized appropriately;

(4) a recording drilling fluid pit level indicator with both visual and audio warning devices located in the immediate area of the driller's console;

(5) a drilling fluid measuring system or trip tank for accurately determining drilling fluid volumes required to fill the well bore on trips;

(6) a drilling fluid flow sensor with a read-out convenient to the driller's console to determine that drilling fluid returns essentially equal drilling fluid pump discharge rates; and

(7) drilling fluid agitators of sufficient number and size to ensure that uniform drilling fluid properties are maintained within the system.

(c) Drilling fluid testing equipment must be on the drill site at all times. Tests to determine drilling fluid properties must be performed once each tour, or more frequently when conditions warrant. Tests must be conducted in conformance with American Petroleum Institute recommended practices (API RP) 13 B, "Recommended Practice for Standard Procedure for Testing Drilling Fluids," and recorded as required by 20 AAC 25.070(a)(1).

(d) To ensure that primary well control is being effectively maintained, the following practices must be employed before tripping the drilling assembly out of the well bore.

(1) the drilling fluid within the well bore must be in balance and conditioned to maintain drilling fluid properties within close tolerance to the properties necessary for well control.

(2) the flow nipple must be visually observed to ensure that there is no indication of formation fluid influx.

(3) the well bore must be kept full of drilling fluid at all times. The volumes of drilling fluid required to keep the well bore full while tripping the drilling assembly out of the well bore must be measured and recorded on the daily drilling report.

(e) Additional requirements that apply to all exploratory and stratigraphic test wells only are as follows.

(1) if geophysical data are available, a velocity analysis of the strata to be penetrated by the well must be undertaken to predict the potential of encountering overpressured strata. The analysis must be displayed as an interval transit time versus depth plot. The operator shall include with the application for the Permit to Drill (Form 10-401) a tabulation that sets out the depths of predicted overpressured strata. The commission will, in its discretion, require a confidential review of the velocity analysis and the interval transit time versus depth plot.

(2) a drilling fluid monitoring unit must be employed and continually manned. At a minimum, the following equipment for monitoring and recording must be operational:

(A) equipment for detecting gas entrained in the drilling fluid,

(B) equipment for determining drilling fluid density,

(C) equipment for determining drilling fluid salinity,

(D) equipment for determining shale chip density,

(E) equipment for determining the rate of penetration, and

(F) equipment for detecting hydrogen sulfide as required by 20 AAC 25.065.

(3) means for communication between the drilling fluid monitoring unit and the rig

floor must be installed. Rig floor personnel must be notified immediately when excursions from normal trends occur for each of the parameters set out in (2) of this subsection.

(f) A drilling fluid return sample must be taken and tested to determine density and salinity just before tripping the drill pipe, when drilling exploratory and stratigraphic test wells, or when drilling development and service wells while known hydrocarbon-bearing strata are exposed to open hole. Density and salinity test results must be recorded as required by 20 AAC 25.070(a)(1). If the density is less or the salinity varies with that of the drilling fluid being pumped down the drilling assembly, the drilling fluid must be circulated and conditioned until a close tolerance of the properties of the return drilling fluid with the input drilling fluid is achieved. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

Editor's Note: A copy of all American Petroleum Institute Recommended Practices (API RP) referred to in this chapter, is available for inspection during business hours at the commission office. Copies of these recommended practices may be obtained, for a monetary consideration, from the American Petroleum Institute, Publications and Distribution Section, 1220 L Street, Northwest, Washington, D.C. 20005.

20 AAC 25.035. SECONDARY WELL CONTROL: BLOWOUT PREVENTION EQUIPMENT (BOPE) REQUIREMENTS. (a) General BOPE Requirements for the drilling of a well.

(1) for each type of well listed in 20 AAC 25.005(a), a schematic diagram of the blowout preventer (BOP) stack for each proposed casing installation must be submitted with the application for the Permit to Drill (Form 10-401). BOP and related well-control equipment must be installed, used, maintained, and tested in a manner necessary to assure well control, and to, at a minimum, conform with API RP 53, "Recommended Practice for Blowout Prevention Systems."

(2) the working pressure of a BOP must exceed the anticipated surface pressure to which it may be subjected, except that the working pressure of the annular preventer need not exceed 5000 psi unless a higher working pressure is required by the commission. If the anticipated

surface pressure exceeds the rated working pressure of the annular preventer, the operator shall submit with the application for Permit to Drill (Form 10-401) a well-control procedure that indicates how the annular preventer will be used and the pressure limitations that will be applied during each mode of pressure control.

(3) a BOPE assembly must include the following:

(A) a hydraulic actuating system that provides sufficient accumulator capacity to supply 1.5 times the volume necessary to close all BOPs, excepting blind units; the system must also be capable of maintaining a minimum pressure of 200 psi above the required precharge pressure when all BOPs, excepting blind units, are closed and all power sources are shut off; an accumulator backup system, supplied by an independent nitrogen power source, must be provided with sufficient capacity to close all BOPs and hold them closed; locking devices must be provided on the ram-type preventers; the method of BOP actuation control, such as hydraulic, acoustic, or other methods, must be described and included in the application for Permit to Drill (Form 10-401); accumulators and primary controls must be shielded by a fire wall;

(B) one operable remote BOPE control station on the drilling floor;

(C) a drilling spool with flanged or hubbed side outlets, if flanged or hubbed side outlets are not provided in the BOP body, to provide for separate kill and choke lines;

(D) a kill line equipped with two kill line valves; the master valve must be adjacent to the drilling spool; the master valve may not normally be used for opening or closing on flowing fluid; the second valve must be adjacent to the master valve and must be used as the control valve;

(E) a fillup line above the uppermost BOP;

(F) a choke manifold; a choke manifold utilized with a required 5M, 10M or 15M

BOP must be equipped with at least one remotely operated choke, in addition to all other required chokes;

(G) valves, pipes, flexible steel hoses, and other fittings, including all sections of the choke manifold which are subject to full wellhead pressure, with working pressure ratings at least equal to the working pressure of the BOP required to be installed;

(H) a wellhead assembly with a working pressure at least equal to the working pressure of the BOP required to be installed;

(I) blind/shear rams in place of blind rams in the case of an offshore subsea BOPE assembly; and

(J) a kill line and choke line must be

(i) as straight as practical; all turns must be at 90 degrees and targeted;

(ii) firmly anchored to prevent excess whip or vibration;

(iii) sufficiently sized to prevent excessive erosion or fluid friction; and

(iv) without internally clamped joints, unless approved by the commission.

(4) Auxiliary equipment. The following auxiliary equipment must be provided and maintained in operable condition at all times:

(A) a kelly cock valve installed below the swivel and an essentially full-opening lower kelly valve of a design that allows it to be run through BOP's installed at the bottom of the kelly; a properly sized wrench for each valve stored in a conspicuous location readily accessible to the drilling crew;

(B) an inside BOP and an essentially full-opening drilling assembly safety valve in the open position on the rig floor to fit all connections that are in the drilling assembly;

(C) an automatic choke controller for each remotely operated choke; and

(D) a hydraulically operated valve installed in the choke line at the BOP stack and actuated by remote control.

(5) all equipment must be in good operating condition at all times and must be protected to insure reliable operation under the range of weather conditions that may be encountered at the well site.

(6) blind rams must be function-tested each trip, but need not be function-tested more than once each day on days when more than one trip is made. All other BOPs must be function-tested each day.

(7) testing of BOPE.

(A) all ram-type BOPs, kelly valves, emergency valves and choke manifolds must be tested to the rated working pressure or to the maximum surface pressure as required to be submitted in (d)(2) of this section. Annular preventers must be tested to not less than 50 percent of the rated working pressure. These tests must be made when the BOPE is installed or changed, and at least once each week after that. Test results must be recorded as part of the daily record required by 20 AAC 25.070(a)(1).

(B) to insure that minimum standards are achieved, the operator shall perform the recommended tests for BOP closing units specified in sections 5A and 5B of API RP 53.

(C) sufficient notice of certain BOPE tests must be given so that a representative of the commission may witness the tests. These tests will be specified in the drilling permit or by notice to the operator.

(b) Structural Casing BOPE Requirements.

(1) before drilling below the structural casing, a high capacity flow diverter system must be installed to provide safety for personnel and equipment. The flow diverter system must be equipped with a remotely operated annular pack-off device and only one 10-inch minimum diameter vent line outlet located below the annular pack-off, either as an integral part of

the annular pack-off device or as a vent line outlet spool immediately below. The vent line valve must be full-opening. The actuating mechanism for the vent line valve must be integrated with the actuating mechanism for the annular pack-off device in a fail-safe manner so that the vent line valve will automatically, and simultaneously, open upon closure of the annular pack-off device to prevent the shut-off of a well bore flow. The 10-inch minimum diameter vent line must bifurcate in directions that ensure safe downwind venting, and the bifurcated sections of the vent line must extend to a point at least 100 feet removed from a potential source of ignition. The vent line must be designed to avoid freezeup, and be secured to prevent movement, and all turns must be at 90 degrees and targeted. Valves or deflection devices for the selection of a bifurcated vent line section must be designed to ensure in a fail-safe manner that one of the bifurcated vent line sections is always open. All valves or deflector devices must be full-opening or full-flow capability. A schematic diagram, list of equipment with specifications, and operational procedure for the diverter system must be submitted for approval with the application for a Permit to Drill (Form 10-401). Upon request of the operator, the commission will, in its discretion, approve variances to the required equipment and design of the diverter system.

(2) if formation competency at the structural casing setting depth is not adequate to permit circulation of drilling fluids while drilling the conductor hole, a program that provides for safety in these operations must be described and submitted to the commission for approval. This program must be supported by the inclusion of all known pertinent information including seismic and geologic data, water depth, drilling fluid hydrostatic pressure, and a contingency plan for moving off location.

(3) the commission will, in its discretion, waive the requirements of (1) of this subsection if drilling experience in the near vicinity indicates a diverter system is not necessary.

(c) Conductor Casing BOPE Requirements.

(1) before drilling below conductor casing, a high capacity flow diverter system must be installed to provide safety for personnel and

equipment. The flow diverter system must conform to the requirements set out in (b)(1) of this section. A schematic diagram, list of equipment with specifications, and operational procedure for the diverter system must be submitted for approval with the application for a Permit to Drill (Form 10-401).

(2) the commission will, in its discretion, waive the requirements of (1) of this subsection if drilling experience in the near vicinity indicates a diverter system is not necessary.

(d) Surface, Intermediate and Production Casing BOPE Requirements.

(1) before drilling below or perforating these casings, and until well operation is completed, the requirements set out in (a) of this section must be met. Stack arrangements for the required BOP working pressure must be as follows:

(A) if required, API 2M and 3M stacks must have at least three preventers, including one equipped with pipe rams that fit the size of drill pipe, tubing, or casing in use, one with blind rams and one annular type.

(B) if required, API 5M, 10M, and 15M stacks must have at least four preventers, including two equipped with pipe rams that fit the size of the drill pipe, tubing, or casing being used, one with blind rams and one annular type.

(2) information submitted with the application for Permit to Drill (Form 10-401) must include the maximum downhole pressures that may be encountered, the maximum potential surface pressures, and the criteria used to determine these pressures. (Eff. 4/13/80, Reg. 74; am 2/22/81, Reg. 77; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.040. WELL IDENTIFICATION.

(a) Every well must be identified by a sign posted in a conspicuous place. During the period of time from spud to well completion, suspension, or abandonment, the sign must be on or near the derrick, but not more than 100 feet from the well. For suspended or producible wells, the well sign must be at the wellhead

or on the wellhead building. The sign must be of durable construction, large enough to be legible under normal conditions at a distance of 50 feet, and maintained in legible condition. Each sign must show

(1) the name of the well;

(2) the name of the owner;

(3) the operator if different from the owner;

(4) the well number;

(5) the well surface location by quarter section, section, township and range; and

(6) the drilling permit number during the period of time from spud to well completion, suspension, or abandonment.

(b) Each well will be assigned an API well number by the commission when the drilling permit is approved.

(c) For platforms or multiple-well drill sites, the information required in (a)(1), (2), (3), and (5) of this section may be posted on one sign on the platform or at the main entrance to the drill site. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.045. SEALING OFF STRATA.
Repealed 4/2/86.

20 AAC 25.047. RESERVE PITS. (a) Before spudding a well permitted under 20 AAC 25.005, a proper and appropriate reserve pit must be constructed, or appropriate tankage installed for the reception and confinement of drilling fluids and cuttings, to facilitate the safety of the drilling operation, and to prevent contamination of ground water and damage to the surface environment. Special precautions must be taken to render impervious the confining surface of a reserve pit. If practical, confinement diking in construction of a reserve pit must be avoided. If confinement dikes are necessary, they must be kept to a minimum. Dikes must be constructed and maintained to insure their confinement integrity.

(b) Upon termination of completion, suspension, or abandonment operations, the operator shall proceed with diligence to dispose of or solidify in place all pumpable fluids, and shall leave the reserve pit in a condition that does not constitute a hazard to ground water. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.050. DEVIATION. (a) A well that is not intentionally deviated must be

(1) drilled as close to vertical as is possible using conventional drilling techniques, except that deviation is permitted for short intervals to straighten the hole, sidetrack junk, or correct mechanical difficulties;

(2) surveyed to determine the inclination from the vertical with surveys starting at 500 feet and no more than 500 feet apart to total depth; and

(3) surveyed by a complete continuous directional survey if the surface location is less than 660 feet from a lease line where ownership changes or less than 660 feet from any other vertical or deviated well; the survey must be taken at intervals not more than 100 feet apart, beginning within 100 feet of the surface.

(b) If a well is to be intentionally deviated, the application for a Permit to Drill (Form 10-401) must

(1) include a plat, drawn to a suitable scale, showing the path of the proposed well bore in relation to all other vertical and deviated well bores; if well bores occur within 200 feet of the proposed well bore, plat those areas at a scale of one inch equals 100 feet and include the true vertical depths shown at frequent intervals along each well bore;

(2) list the affected owners and show that each has been furnished a copy of the application by registered mail, or state that the applicant is the only affected owner; and

(3) include a neat and accurate plat of the property and of all affected properties, showing the identity of the affected properties, the names of all affected owners, and all wells

within one-half mile of any portion of the new well; the plat must be drawn to a scale that will permit easy observation of all pertinent data.

(c) The items listed in (b)(2) and (3) are not applicable to a well drilled on land subject to an approved unit and located 660 feet or more from the exterior boundary of the unit.

(d) If there are no affected owners, the commission will promptly approve the Permit to Drill (Form 10-401) submitted under (b) of this section. If there are affected owners, the commission will

(1) hold the application for 15 days, and will then promptly issue a Permit to Drill if no objections have been received from affected owners; or

(2) issue a Permit to Drill before the end of the 15-day period if a letter of non-objection is received from each affected owner before the end of that period; or

(3) schedule a public hearing in accordance with 20 AAC 25.540 if an affected owner objects within the 15-day period and issue an order governing the application within 30 days following the close of the public hearing.

(e) If a well is intentionally deviated, the operator shall run a complete, continuous, directional survey at intervals not more than 100 feet apart, beginning within 100 feet of the surface.

(f) Within 30 days after the completion, abandonment, or suspension of a well, a complete copy of each inclination and directional survey obtained must be filed with the commission. A composite survey may also be filed if the operator feels this would better represent the well course. If a composite survey is filed, the operator shall specify the portion of each survey used in the composite.

(g) If the final location of the producing interval of a well is not in compliance with 20 AAC 25.055 or other rules of the commission applicable to the reservoir, the operator shall apply for an exception; the application will be handled in accordance with 20 AAC 25.540.

(h) For the purpose of this section, an affected owner is an owner of a quarter section directly or diagonally offsetting any quarter section upon which the operation is proposed to be conducted. In areas where irregular-shaped properties are to be drilled, the commission will determine who is an affected owner.

(i) A directional survey report, required by (a)(3) or (e) of this section, must contain the following:

- (1) name of surveying company;
- (2) name, title, and signature of person actually performing the survey;
- (3) the date on which the survey was performed;
- (4) type of survey conducted;
- (5) method used in calculating survey;
- (6) a complete identification of the well so as to indicate the name of the operator, the property name, the well number, and field name;
- (7) the depth interval over which the survey was conducted; and
- (8) a plat showing the surface location, the plotted well course, and the nearest property lines or unit lines.

(j) An inclination survey report, required by (a)(2) of this section, must contain a tabulation of the depth and drift angles for all inclination survey points.

(k) The commission will, in its discretion, require the submittal of the original film, time sheets, charts, graphs, discs, and other data used to compile the survey required by (a)(3) or (e) of this section.

(l) Upon application, the commission will, in its discretion, waive all or part of the directional survey requirements of this section, or approve alternate means for determining the location of a bore hole. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.055. DRILLING UNITS AND WELL SPACING. (a) In proven oil and gas fields, the establishment of drilling units and a spacing pattern may be governed by special pool rules adopted in accordance with 20 AAC 25.520. In the absence of an order by the commission establishing drilling units or prescribing a spacing pattern for a pool, the following apply:

(1) a governmental quarter section constitutes the drilling unit for oil exploration; the surface location for a well exploring for oil must be at least 500 feet from the drilling unit boundary;

(2) a governmental section constitutes the drilling unit for gas exploration; the surface location for a well exploring for gas must be at least 1500 feet from the drilling unit boundary;

(3) where oil has been discovered, not more than one well may be drilled to that pool on any governmental quarter section, nor may any oil pool be opened to the well bore closer than 500 feet to any quarter section line, nor closer than 1,000 feet to any well drilling to or capable of producing from the same pool; and

(4) where gas has been discovered, not more than one well may be drilled to that pool on any governmental section, nor may any gas pool be opened to the well bore closer than 1,500 feet to any section line, nor closer than 3,000 feet to any well drilling to or capable of producing from the same pool.

(b) An application for exception to the provisions of this section must set out the names of all owners and of all operators of governmental quarter sections directly and diagonally offsetting the quarter section where the oil well is located, or the names of all owners and of all operators of governmental sections directly or diagonally offsetting the section where the gas well is located. A plat must be attached, drawn to a scale of one inch equaling 2,640 feet or larger, showing the location of the well for which the exception is sought, all other completed and drilling wells on the property, and all adjoining properties and wells. The application must be verified by a person acquainted with the facts, stating that all facts are true and

that the plat correctly portrays pertinent and required data. The applicant for exception must send notice of the application by registered mail to all owners and to all operators noted above, and furnish the commission with a copy of the notice, date of mailing, and the addresses to which the notices were sent. The application for exception will be handled in accordance with 20 AAC 25.540.

(c) A well may not be re-entered for the purpose of producing oil on a property that is smaller than the governmental quarter section upon which the well is located or for the purpose of producing gas on a property that is smaller than the governmental section upon which the well is located.

(d) If two or more separately owned properties are embraced within a governmental quarter section to be drilled, or a well re-entered for oil, or a governmental section to be drilled, or a well re-entered for gas, persons owning the oil or gas rights may voluntarily pool their separate interests to form a drilling unit. A copy of the pooling agreement must be submitted to the commission. If one or more persons owning oil and gas rights fail to voluntarily pool their interests, the commission, upon petition or its own motion, and after public hearing, will, in its discretion, issue an order pooling the owner's interests for the development of their land as a drilling unit. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030
AS 31.05.100

20 AAC 25.061. WELL SITE SURVEYS. (a) Near surface strata to a depth of 2000 feet in the well site area for all exploratory and stratigraphic test wells must be evaluated seismically by common depth point refraction or reflection profile analysis to identify anomalous velocity variations indicative of potential shallow gas sources. Analysis results must be included with the application for the Permit to Drill (Form 10-401).

(b) The well site area must be evaluated by sidescan sonar and other pertinent surveys to determine whether potential seabed hazards to drilling operations are present for each type of well listed in 20 AAC 25.005 to be drilled

offshore from a mobile bottom-founded, jack-up or floating unit. Survey results must be included with the application for Permit to Drill (Form 10-401).

(c) Upon request by the operator, the commission, in its discretion, will waive the requirements of this section. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.065. HYDROGEN SULFIDE. (a) When hydrogen sulfide gas is encountered, the operator shall notify the commission within 24 hours.

(b) If a well is to be drilled in an area where a formation to be penetrated is known to contain hydrogen sulfide gas, or if hydrogen sulfide is encountered while drilling, each operator shall meet the requirements of API RP 49, "Recommended Practices for Safe Drilling of Wells Containing Hydrogen Sulfide."

(c) If there is an insufficient history of drilling in an area to know whether hydrogen sulfide exists, the commission will specify on the drilling permit that the operator shall comply with the minimum requirements for detection monitoring, contingency and control, and training, as follows:

(1) detection monitoring

(A) an automatic hydrogen sulfide monitor must be installed and must have a combination visual and audible alarm system located where it can be seen or heard from all parts of the location;

(B) the automatic hydrogen sulfide monitor must have a minimum of two probes, one at the shale shaker and one on the bell nipple; and

(C) in addition to the automatic hydrogen sulfide monitor, at least three manual detectors with an adequate supply of extra detector tubes must be available at the drill site;

(2) contingency and control

(A) hydrogen sulfide treating material for the drilling mud must be available on or near the location, in good condition and in sufficient quantity to adequately treat the mud system should hydrogen sulfide be encountered;

(B) detailed emergency operating procedures must be defined and posted to ensure the safety of all personnel should hydrogen sulfide be encountered;

(C) detailed step-by-step remedial procedures must be developed and posted to cover emergencies while drilling or tripping; and

(D) personnel protective equipment must be available at the well site;

(3) all drill site supervisors must be trained for emergency procedures in the presence of hydrogen sulfide.

(d) If a well produces hydrogen sulfide gas, each operator shall meet the requirements of API RP 55 "Recommended Practices for Conducting Oil & Gas Production Operations Involving Hydrogen Sulfide." (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.070. RECORDS AND REPORTS.

(a) The operator of each well shall

(1) keep a detailed accurate daily record of the actual drilling, completion, suspension and abandonment operations, and the tests required by this chapter, which must be available for inspection at reasonable times by the commission or a representative of the commission

(A) at the well; and

(B) in Alaska for five years after the date of well abandonment; and

(2) file with the commission, within 30 days after completion, abandonment, or suspension of the well, a complete well record on the Well Completion or Recompletion Report and Log (Form 10-407), including a copy of the daily reports of well operations and the tests required by this chapter.

(b) For all completed exploratory wells, the operator shall submit to the commission a certification that the well is capable of producing oil or gas. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.071. GEOLOGIC DATA AND LOGS. (a) An operator shall log the portion of the well below the conductor pipe by either a complete electrical log or a complete radioactivity log unless the commission specifies which type of log is to be run.

(b) Within 30 days after completion, suspension, or abandonment of a drilling well, the operator shall file with the commission

(1) a sepiia and a reproduced copy of a complete mud log or a lithology log consisting of a detailed record and description of the sequence of strata encountered, including kind and character of the rock and all shows of hydrocarbons;

(2) a complete set of washed and dried, legibly-identified samples of all drill cuttings, as caught by the operator in accordance with good geological practices, consisting of a minimum of one-quarter cup in volume or three ounces in weight of cuttings for each sample interval;

(3) a lithologic description of all cores and a chip or chips from each foot of recovered core; the chips must be representative of the one-foot interval, and must be approximately either one cubic inch in volume or two ounces in weight;

(4) a list of the geologic markers encountered in the well and the measured and true vertical depths of each marker;

(5) a sepiia and a reproduced copy of all logs run in the well (including dipmeter and composite logs, if available), except velocity surveys and experimental logs;

(6) if available, a tape and verification listing of the digitized data for all logs run in the well, except the dipmeter survey, including a written description of the logical and physical format of the digitized data; and

(7) a copy of all drill stem test data and charts; core analysis determinations of porosity, permeability and fluid saturations; and formation water analyses obtained by the operator; these data must be filed as soon as available if the 30-day filing period cannot be met.

(c) The commission will, in its discretion, waive the requirements of (a), (b)(1), and (b)(2) of this section for development wells.

(d) In this section

(1) "experimental logs" means logs that are so newly developed or so limited or specialized in application that they are not commonly run on petroleum exploration or development wells; and

(2) "velocity survey" means a survey, the primary purpose of which is to determine velocity of seismic waves through formations penetrated by a well by measuring travel times of seismic pulses from or near the surface to a seismometer lowered to various depths in the well. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030
AS 31.05.035

20 AAC 25.072. SHUTDOWN OF WELL OPERATIONS. (a) If climate, operational or environmental concerns, prudence, or other circumstances prevent the continuation of the program approved on the drilling permit, or for rig substitution, the operator shall apply to the commission for approval to shut down well operations. The commission will, in its discretion, approve the shutdown of well operations. The letter of application must set out a full justification for the shut down and be accompanied by an Application for Sundry Approvals (Form 10-403) which sets out the proposed condition of the well bore upon shutdown of well operations, approximate date when well operations will resume, and a proposed program for securing the well during the period of shutdown.

(b) The operator shall file with the commission, within 30 days after well shutdown, a complete well record on a Report of Sundry Well Operations (Form 10-404), including a copy of the daily reports of well operations required by 20 AAC 25.070(a)(1) and a copy

of all logs run in the well as required by 20 AAC 25.071(b)(5). The commission will, in its discretion, waive the requirements of this subsection if well operations are to be resumed within 60 days.

(c) Shutdown of well operations does not establish a completion, suspension, or abandonment date for a well.

(d) If well operations are not resumed within 12 months, the operator shall immediately proceed to abandon the well. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.075. OTHER WELLS IN DESIGNATED AREAS. There are areas in the state where drilling operations could unexpectedly encounter oil, gas, or hazardous substances at shallow depths. When the commission obtains sufficient evidence to define a specific area and the approximate depth range of the substances, it will issue an order that will present the evidence, define the area, and stipulate a drilling depth. After the issuance of such an order, any well drilled in the defined area, for any purpose, that exceeds the stipulated depth will require a drilling permit and may be subject to the other requirements of this chapter. (Eff. 4/13/80, Reg. 74)

Authority: AS 31.05.030

ARTICLE 2. ABANDONMENT AND PLUGGING

Section

- 105. Plugging, suspension, and abandonment of wells
- 110. Suspended wells
- 120. Well abandonment marker
- 140. Water wells
- 170. Onshore location clearance
- 172. Offshore location clearance

20 AAC 25.105. PLUGGING, SUSPENSION, AND ABANDONMENT OF WELLS. (a) All wells that have been permitted on a property under 20 AAC 25.005 must be abandoned before expiration of the operator's lease termination rights to that property. If the operator is the landowner, all wells that have been permitted on a property by 20 AAC 25.005 must

be abandoned within one year following cessation of the operator's oil and gas activity within the field where the wells are located.

(b) Each well drilled onshore or offshore from a fixed structure or historically stable island must be abandoned or suspended before removal of the drilling unit from the site unless completed as an oil, gas, or service well.

(c) Each well drilled offshore from a mobile bottom-founded, jack-up, or floating drilling unit must be abandoned before removal of the drilling unit from location unless completed as an oil, gas, or service well, or unless well operations are shut down, in conformance with 20 AAC 25.072, and subsea equipment is installed in a manner approved by the commission.

(d) Each well drilled from a beach or from an artificially constructed island or a shifting natural island must be abandoned or suspended before removal of the drilling unit from the site unless completed as an oil, gas, or service well, or unless well operations are shut down in conformance with 20 AAC 25.072 and plans for maintaining the integrity of the well site are approved by the commission.

(e) Each well to be abandoned or suspended must be plugged by the operator who is responsible for the well, to prevent the movement of fluid either into or between freshwater and hydrocarbon sources and to prevent all other fluid migration within the well bore. If a well is to be abandoned or suspended, the form entitled Application for Sundry Approvals (Form 10-403) must be filed with, and approved by, the commission before beginning work. Approval will be conditioned as necessary to protect freshwater and hydrocarbon resources. Verbal approval may be obtained from the commission or its representative before beginning work. A verbal approval must be followed by the filing of Form 10-403 within 10 days. A Form 10-403 filing must include

(1) the reason for abandonment or suspension; and

(2) a statement of proposed work, including the following:

(A) information on porous and abnormally geopressed strata;

(B) the kind, size, and location, by measured depth, of existing and proposed plugs;

(C) plans for mudding, cementing, shooting, testing, and removing casing;

(D) all other pertinent information; and

(E) if the Form 10-403 is filed after beginning work, the name of the commission member or its representative who provided verbal approval, and the date of the approval.

(f) Uncased portions of a well bore must be plugged with cement in a manner that ensures that all hydrocarbons and freshwater are confined to their respective indigenous strata and are prevented from migrating into other strata or to the surface. Minimum requirements for plugging the uncased portion of a well bore are as follows:

(1) by the displacement method, a continuous cement plug must be spaced to extend upward from 50 feet below the base to 100 feet above the top of all hydrocarbon-bearing strata;

(2) by the displacement method, a continuous cement plug must be spaced to extend upward from 100 feet below the base to 50 feet above the base of abnormally geo-pressured strata and another continuous cement plug from 50 feet below the top extending upward to 100 feet above the top of the abnormally geo-pressured strata;

(3) by the displacement method, a continuous cement plug must be spaced to extend from 150 feet below to 50 feet above the base of the deepest freshwater strata.

(g) Uncased and cased portions of the well bore must be effectively segregated to prevent vertical movement of fluid within the well bore. The minimum plugging requirement is as follows.

(1) by the displacement method, a continuous cement plug must be spaced upward extending from 100 feet below to 100 feet above the casing shoe; or

(2) by the downsqueeze method through a retainer set no less than 50 feet and no more than 100 feet above the casing shoe, sufficient cement must be pumped through the retainer to extend from the retainer to 100 feet below the casing shoe; the retainer must be capped with a continuous 50 foot cement plug; or

(3) by the displacement method, a continuous cement plug must be spaced upward extending from 100 feet below to 100 feet above the casing stub.

(h) Cased portions of the well bore must be plugged with cement to ensure that all hydrocarbons and freshwater are confined to their respective indigenous strata and are prevented from migrating into other strata or to the surface. Minimum requirements for plugging cased portions of the well bore are as follows.

(1) perforated intervals must be plugged by one of the following methods:

(A) by the displacement method, continuous cement plugs must be spaced extending from 100 feet below to 50 above the base of the perforated interval and extending from 50 feet below to 100 feet above the top of the perforated interval;

(B) by the down squeeze method, through a cement retainer or production packer set above the perforated interval with a volume of cement equivalent to fill the lineal feet of the well bore from the retainer or packer to 100 feet below the base of the perforated interval;

(C) by placing a mechanical bridge plug no more than 50 feet above the top of the perforated interval and placing no less than a 75-foot cement plug on top of the bridge plug providing the perforations are isolated from open hole below.

(2) casing stubs within outer casing must be plugged by one of the following methods:

(A) by the displacement method, a continuous cement plug must be spaced extending from 100 feet below the stub to 100 feet above the stub;

(B) by the downsqueeze method, through a retainer set 50 feet above the stub with a volume of cement equivalent to fill 150 lineal feet squeezed below the retainer and with an additional 50 lineal feet of cement plug placed above the retainer;

(C) by placing a mechanical bridge plug no more than 25 feet above the casing stub and placing no less than a 75-foot cement plug on top of the bridge plug.

(i) Surface plugs for wells to be abandoned must be as follows:

(1) by the displacement method, a cement plug at least 150 feet in length with the top of the plug 5 feet or less below rig grade elevation upland or 15 feet or more below the mud line offshore must be spaced within the smallest casing extending to the surface onshore or mud line offshore; and

(2) all annular space in communication with open hole and extending to the surface upland or mud line offshore must be plugged with sufficient cement to effectively seal the annular space in a manner satisfactory to the commission; or

(3) all casing interior to the surface casing may be recovered to a depth of 165 feet or more below the rig grade elevation upland or the mud line offshore and the casing stubs plugged with cement as detailed by (g) or if the top of the plug resulting from compliance with (g) or (h)(2) of this section will not permit a plug of 150 feet as required in (1) of this section, the cement plug required by (g) or (h)(2) must be increased to extend to 5 feet or less below rig grade elevation upland or 15 feet or more below the mud line offshore.

(j) Cements used for plugging within zones of permafrost must be designed to set before freezing and have a low heat of hydration.

(k) Intervals below and between plugs must be filled with a fluid of a density that equals or exceeds the fluid density used to drill that interval, unless otherwise approved by the commission.

(l) The operator shall record the actual location and integrity of cement plugs required by this section after setting sufficient weight on the plug to confirm its location, that the cement has set, and that a competent plug is in place. When a mechanical bridge plug is capped with cement and pressure tested for plug integrity, the operator shall record the location of the bridge plug and not the top of the cement. Notice of the plugging operations must be given to the commission in time so that a representative of the commission may be present to witness the work.

(m) Upon a proper showing of extenuating circumstances, the commission will, in its discretion, approve a variance from the requirements of this section, if the variance equally effects proper plugging of the well and will not allow the movement of fluid into sources of hydrocarbons or freshwater. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.110. SUSPENDED WELLS. (a) Upon application by the operator under 20 AAC 25.105(e), the commission will, in its discretion, approve the suspension of a well if the well

(1) encounters hydrocarbons of sufficient quality and quantity to indicate the well is capable of producing in paying quantities as reasonably demonstrated by well tests or interpretive formation evaluation data; or

(2) is reasonably demonstrated to have future value as a service well.

(b) In addition to the filing requirements set out in 20 AAC 25.105(e), the applicant has the burden of justifying to the commission's satisfaction why the well should not be completed or abandoned. The confidentiality of information voluntarily submitted in support of well suspension will be kept confidential in accordance with 20 AAC 25.537. Justifiable reasons for suspension include

(1) surface production and resource marketing facilities are not available;

(2) security maintenance of a completed well in a shut-in status is not prudent;

(3) pool delineation and evaluation is necessary to determine prudence of pool development and the construction of production or access to market facilities;

(4) well production awaits design, delivery, and construction of production and market outlet facilities.

(c) In addition to the plugging requirements of 20 AAC 25.105, the operator shall set a bridge plug between 200 and 300 feet below the casing head and cap with 100 linear feet of cement.

(d) The commission will, in its discretion, approve an exception to 20 AAC 25.105(c) if the requirements of 20 AAC 25.105(i)(2) are met and subsurface equipment satisfactory to the commission for well re-entry is installed.

(e) During the period of well suspension, the operator shall maintain the integrity of the well site and clear the location in a manner approved by the commission. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.120. WELL ABANDONMENT MARKER. (a) The exact surface location of an abandoned well must be shown by a steel marker post. The marker post may not be installed until wellhead equipment, casing landing heads and casing are recovered to a depth at least three feet below rig grade level. The description and installation of the post must be as follows:

(1) four inches in diameter;

(2) at least 10 feet long;

(3) set in cement inside well casing;

(4) extending from four to six feet above final ground level;

(5) the top of the marker post must be closed with one of the following:

(A) cement plug;

(B) screw cap; or

(C) welds; and

(6) as an alternative method to (2) and (3) of this subsection, the marker post may be firmly welded with supporting fillets to the top of a steel plate secured to the casinghead or casing stub.

(b) The following information must be bead-welded directly to the marker post:

(1) name of the operator;

(2) unit or lease name;

(3) well number; and

(4) exact location with

(A) footage from section lines;

(B) section number;

(C) township, north or south;

(D) range, east or west; and

(E) meridian.

(c) Inspection of proper marker-post installation and correct information will be made by a representative of the commission at the time of the location clearance inspection as required in 20 AAC 25.170.

(d) If requested by the operator or surface owner, the marker-post installation requirement will, in the commission's discretion, be waived by the commission. If the requirement is waived, the information required in (b)(1), (2), and (3) of this section must be bead-welded on top of a steel plate secured to the casinghead.

(e) This section does not apply to abandoned wells that were drilled from a mobile bottom-founded, jack-up or floating drilling unit; an offshore fixed structure; an artificially constructed gravel or historically shifting natural island; or a beach location. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.140. WATER WELLS. If a well drilled for oil or gas is to be plugged and abandoned, but may safely be used as a fresh-water well, and such a use is desired by a person, written authority for this action must be obtained from the landowner and owner of the surface rights. The authorization must provide for the authorized person's assumption of full responsibility for the final plugging of the water well. This authorization must be filed with, and approved by, the commission. Following the commission's approval of the plugging of the well to protect the freshwater bearing strata and the location clearance, the operator is relieved of further obligation under the operator's bond. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.170. ONSHORE LOCATION CLEARANCE. (a) The location of an abandoned well onshore or upon a historically stable island, must be cleared within one year following well abandonment or before expiration of operator's rights, whichever occurs first. The operator shall

(1) remove all materials, supplies, structures, and installations from the location;

(2) remove, adequately bury, or incinerate all loose debris occurring on or near the location;

(3) fill and grade all pits; and

(4) leave the location in a clean and graded condition.

(b) The commission will, in its discretion, grant an extension of time beyond one year following well abandonment, upon receipt of the form entitled Application for Sundry Approvals (Form 10-403), on which is stated

(1) a request for a specific time extension not to exceed one year;

(2) the reason an extension is necessary;

(3) a description of location clearance progress; and

(4) the expiration date of the operator's rights to enter the location

(c) Following completion of all work required in (a) of this section, on-site inspections at a time convenient to the operator will be made by a representative of the commission to

(1) verify a proper well marker as required in 20 AAC 25.120;

(2) verify the location condition at the time of inspection; and

(3) provide the operator and field representative a report of the inspection. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.172. OFFSHORE LOCATION CLEARANCE. (a) After an offshore well is abandoned from a fixed platform, the site must be cleared before expiration of the operator's lease termination rights, by removing all casing, wellhead equipment, piling, structures, and other obstructions, to a depth at least 15 feet below the mud line floor or to a depth approved by the commission after review of sea bottom conditions. The operator must verify, by appropriate means approved by the commission, that the site has been cleared of all obstructions.

(b) For a well abandoned from a mobile bottom-founded, jack-up or floating drilling unit, the well site must be cleared before removal of the drilling unit from the location by recovering all casing, wellhead equipment, piling, and other obstructions, to a depth at least 15 feet below the mud line floor, unless otherwise approved by the commission. The operator must verify, by appropriate means approved by the commission, that the location has been cleared of all obstructions.

(c) For a well abandoned from an artificial gravel island or shifting natural island, the well site must be cleared within one year following abandonment, or before the time that the operator ceases to conduct activities necessary to ensure the integrity of the well site, or before expiration of operator's rights, whichever occurs first. The operator shall

(1) remove all casing and wellhead equipment to a depth of at least two feet below the mudline; the mudline for an artificial gravel

island is defined as the depth of the sea floor when the island was constructed; the mudline for a shifting natural island is defined as the depth at which a horizontal plane constructed through the toe of the slope of the island intersects the well bore;

(2) remove all materials, supplies, structures, and installations from the location;

(3) remove from the location, or incinerate, all loose debris occurring on or near the location;

(4) fill and grade all pits; and

(5) leave the location in a clean and graded condition.

(d) Following completion of all work required in (c) of this section, onsite inspections at a time convenient to the operator will be made by a representative of the commission to

(1) verify the location condition at the time of inspection; and

(2) provide the operator and field representative a report of the inspection. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

ARTICLE 3. PRODUCTION PRACTICES

Section

- 200. Production equipment
- 205. Notification of accidental loss of oil or gas
- 210. Multiple completion of wells
- 215. Commingling of production
- 225. Potential of gas wells
- 228. Production measurement equipment
- 230. Production measurement
- 235. Gas utilization
- 240. Gas-oil ratios
- 245. Common production facilities
- 250. (Repealed)
- 252. Underground disposal of water and other oil field waste fluids and underground storage of liquid hydrocarbons
- 255. (Repealed)
- 260. Illegal production

- 265. Automatic shut-in equipment
- 270. Initial reservoir pressure
- 275. Reservoir fluid properties
- 280. Workover operations
- 285. Blowout prevention equipment for workover operations

20 AAC 25.200. PRODUCTION EQUIPMENT. (a) Surface production equipment must be installed to control, separate, clean, and gather in a safe manner all produced oil, gas, and water. All equipment must be maintained in accordance with good established industry practice.

(b) All equipment must be designed and protected to ensure reliable operation under the range of weather conditions expected for the specific location.

(c) Wellhead equipment must include appropriate gauges and valves installed on the tubing, casing-tubing annulus and casing-casing annuli to show surface pressures and to control the well flow for the range of conditions expected. Other alternatives will, in the commission's discretion, be approved for subsea completions.

(d) All wells capable of unassisted flow must be completed with downhole production equipment consisting of suitable tubing and a packer which effectively isolates the tubing-casing annulus from fluids being produced, unless otherwise specifically approved by the commission. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.205. NOTIFICATION OF ACCIDENTAL LOSS OF OIL OR GAS. (a) The commission must be immediately notified by the operator of any accidental loss of crude oil or natural gas, or both, from a well or production handling operation.

(b) Within five days after the accidental loss, the operator shall submit a written report to the commission, detailing the following facts:

- (1) time of incident;
- (2) location where incident took place;

(3) volumes of crude oil and of natural gas lost;

(4) cause of the loss;

(5) actions taken and planned to prevent further loss; and

(6) equipment or procedural changes, if applicable, to prevent the loss from recurring. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.210. MULTIPLE COMPLETION OF WELLS. A well may not be completed in more than one pool without approval of the commission. The commission will require evidence of complete separation of flowstreams from separate pools, as ascertained by pressure or other acceptable tests conducted at the time the packers are set. Subsequently, if packer leakage is suspected, the commission will, in its discretion, request the operator to provide proof of complete separation of the pools involved in the completions or make a packer leakage test. Notification must be given so that the packer leakage test may be witnessed by a representative of the commission. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.215. COMMINGLING OF PRODUCTION. (a) On the surface, the production from one pool may not be commingled with that from another pool except when the quantities from each pool are determined by at least monthly well tests.

(b) Commingling of production within the same well bore from two or more pools is not permitted unless, after request, notice, and opportunity for public hearing in conformance with 20 AAC 25.540, the commission finds that waste will not occur, production from separate pools can be properly allocated, and the commission issues an order providing for commingling for all wells completed from these pools within the field. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.225. POTENTIAL OF GAS WELLS. All gas wells must be tested by the

multi-point back-pressure method before significant production. The test results and calculations must be reported to the commission on the form entitled Gas Well Open Flow Potential Test Report (Form 10-421) within 30 days after the test. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.228. PRODUCTION MEASUREMENT EQUIPMENT. (a) Hydrocarbon measurement equipment used for the purpose of custody transfer or sale must be fabricated and installed in accordance with the API "Manual of Petroleum Measurement Standards."

(b) Fluid samplers must be either a probe or a slipstream type. The sampler location must be profiled in accordance with sec. 2, ch. 8 of the "Manual of Petroleum Measurement Standards."

(c) If a totalizer system is microprocessor-based, it must be equipped with a back-up pulse accumulator for each meter run, which will count and preserve meter pulses in the event of power or computer failure.

(d) If a microprocessor totalizing system is used, the reports of net measured volumes for the custody transfer intervals must, at a minimum, show the raw or factored pulses, average temperature, pressure, gravity, meter factors, correction factors, and the gross standard volumes.

(e) Gas meter runs must be fabricated, installed and maintained in accordance with ch. 14 of the API "Manual of Petroleum Measurement Standards."

(f) Upon request, the commission will, in its discretion, approve a variance from the requirements of this section. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.230. PRODUCTION MEASUREMENT. (a) All hydrocarbon production must be measured in accordance with this section before severance from the property or unit where produced. If compliance is not prudent, the commission will, in its discretion, approve an alternate site for measurement facilities upon application and a showing that the accuracy in

measuring hydrocarbons severed from the property or unit is not jeopardized.

(b) Production from each well must be measured to determine the quantities of oil, gas and water, using equipment and techniques acceptable to the commission. Production from a property or unit may be measured as a whole, if individual well test facilities acceptable to the commission are employed to test each well at least once each 30 days to assure accurate allocation to each well.

(c) Bypasses may not be connected around custody transfer or sales measurement equipment such as tanks, meters, gauges, sample containers, or gas meter runs.

(d) The volumes of produced gas, oil, and water must be reported monthly on the Monthly Production Report (Form 10-405) or by an alternate format acceptable to the commission. Disposition of produced gas must be reported monthly on the Producer's Report of Gas Disposition (Form 10-422).

(e) The commission will, in its discretion, require sufficient notice so that its representative may monitor, witness, and collect data to confirm consistency with the API "Manual of Petroleum Measurement Standards" at all custody transfer installations for the following:

(1) water drawing of provers utilized for certification of custody transfer meters;

(2) crude oil sample collection, handling, and analysis;

(3) meter proving and volume calculations; and

(4) gas meter calibrations and volume calculations.

(f) Successive liquid meter factors that differ by more than 0.0025 are unacceptable and proper steps must be immediately taken to bring the meter factor within acceptable tolerance.

(g) Upon request, the commission will, in its discretion, approve a variance from the requirements of this section. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.235. GAS UTILIZATION. (a) Gas from a well may not be permitted to escape into the air without commission approval, except

- (1) when required for safety;
- (2) when required for initial testing; or
- (3) in cases of operational necessity, if the escape is for not more than five days within any 30-day period.

(b) The disposition of gas production must be reported each month on the Producer's Report of Gas Disposition (Form 10-422). (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030
AS 31.05.095

20 AAC 25.240. GAS-OIL RATIOS. (a) For each new oil pool, the operator shall determine,

within three months after discovery, the original solution gas-oil ratio by a well test conducted in a manner approved by the commission. The operator shall report the results on the Well Status Report and Gas-Oil Ratio Tests (Form 10-409) within 45 days after the test.

(b) An oil well may not be produced if the gas-oil ratio of the well exceeds the original solution gas-oil ratio of the crude within the producing pool by more than 100 percent.

(c) Upon written application by an operator, the commission will, in its discretion, waive the limitation in (b) of this section

(1) for wells producing from a pool that has an additional recovery project in operation;

(2) if the produced gas is being returned to the same pool; or

(3) if acquisition of pool performance data is necessary to determine an optimum reservoir management program.

(d) Exceptions for conditions other than those specified in (c) of this section will, at the discretion of the commission, be granted only after application, notice, and an opportunity for public hearing. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.245. COMMON PRODUCTION FACILITIES. Common facilities may be used to receive the production from any number of wells if appropriate tankage or other measuring equipment is installed so that production from each well can be accurately determined at least once each month. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.250. DISPOSAL OF SALT WATER AND OTHER WASTES. Repealed 4/2/86.

20 AAC 25.252. UNDERGROUND DISPOSAL OF WATER AND OTHER OIL FIELD WASTE FLUIDS AND UNDERGROUND STORAGE OF LIQUID HYDROCARBONS.

(a) The underground disposal of freshwater or

salt water, brackish water, or other oil field waste fluids and the underground storage of liquid hydrocarbons, are prohibited except as ordered by the commission in response to a letter of application for injection filed by an operator for underground disposal or storage. An order authorizing disposal or storage wells remains valid unless revoked by the commission.

(b) The operator has the burden of demonstrating that the proposed disposal or storage operation will not allow the movement of fluid into sources of freshwater. Disposal or storage wells must be cased and the casing cemented in a manner that will protect oil, gas, and freshwater sources.

(c) An application for underground injection must include

(1) a plat showing the location of all proposed disposal and storage wells, including abandoned wells, production wells, dry holes, and any other wells that penetrate the injection zone within one-quarter mile of each disposal or storage well;

(2) a list of all operators and surface owners within a one-quarter mile radius of each proposed disposal or storage well;

(3) an affidavit showing that the operators and surface owners within a one-quarter mile radius have been provided a copy of the application for disposal or storage;

(4) the name, description, depth, and thickness of the formation into which fluids are to be injected and appropriate geological data on the injection zone and confining zones, including lithologic description and geologic name;

(5) logs of the disposal or storage wells, if not already on file, or other similar information;

(6) a description of the casing of the disposal or storage wells, or the proposed casing program and the proposed method for testing casing before use of the disposal or storage wells;

(7) a statement as to the type of fluid to be injected, its composition, its source, and the

estimated maximum amounts to be injected daily;

(8) the estimated average and maximum injection pressure;

(9) evidence and data to support a commission finding that the proposed disposal or storage well will not initiate or propagate fractures through the confining zones which might enable the injection fluid or formation fluid to enter any freshwater strata;

(10) an analysis of the water within the formation into which fluid injection is proposed, by a standard laboratory water analysis determination, or by an analytical method acceptable to the commission; and

(11) a reference to any applicable freshwater exemption issued in accordance with 20 AAC 25.440.

(d) Mechanical integrity for disposal or storage wells drilled or converted to disposal or storage wells after the effective date of approval of the commission's program under 42 U.S.C. 300h-4 must be demonstrated according to 20 AAC 25.412 before operation. Mechanical integrity for all disposal or storage wells must be demonstrated by the operator by monitoring the pressure in the casing-tubing annulus during actual injection. The monitored annulus pressure must be reported monthly on the Monthly Injection Report (Form 10-406).

(e) If the casing-tubing annulus pressure subjects the casing to a hoop stress that exceeds 70 percent of the minimum yield strength of the casing, or if there is more than a 200 psi change in pressure between consecutive pressure readings, the commission must be immediately notified and commission-approved corrective action taken.

(f) The commission will, in its discretion, require additional mechanical integrity tests.

(g) Modifications of existing or pending disposal or storage operations will be approved by the commission, in its discretion, under 20 AAC 25.507, upon application containing sufficient detail to evaluate the proposed modi-

fication. No modification will be approved unless the applicant proves to the commission that the modification will not allow the movement of fluids into sources of freshwater.

(h) The operator shall provide a report on the mechanical conditions of all wells that have penetrated the injection zone within a one-quarter mile radius of a proposed disposal or storage well. It is the operator's responsibility to assure that any of the wells under the operator's control within the radius of investigation which may allow the movement of fluids into sources of freshwater are properly repaired, plugged, or otherwise modified. If wells exist that are not under the operator's control, the commission will not approve the application until the operator responsible for those wells has properly repaired, plugged, or otherwise modified the wells to prevent the movement of fluids into sources of freshwater.

(i) The commission will publish notice of the disposal or storage application and will provide opportunity for a hearing in accordance with 20 AAC 25.540.

(j) If disposal or storage operations are not begun within 24 months after the approval date, the injection approval will expire unless an application for extension is approved by the commission. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.255. EQUITABLE DISTRIBUTION OF PRODUCTION. Repealed 4/2/86.

20 AAC 25.260. ILLEGAL PRODUCTION. No person may produce or transport crude oil or natural gas from a well or pool in Alaska when in violation of the regulations and orders of the commission. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.265. AUTOMATIC SHUT-IN EQUIPMENT. (a) A completed well covered by this chapter with an offshore surface location, which is capable of unassisted flow of hydrocarbons, must be equipped with a commission-approved

(1) fail-safe automatic surface safety valve

(SSV) system capable of preventing an uncontrolled flow; and

(2) fail-safe automatic surface controlled subsurface safety valve (SSSV) system, unless another type of subsurface valve is approved by the commission; this valve must be in the tubing string and located below the mud line, permafrost, or at some other depth as may be required; the valve must be capable of preventing an uncontrolled flow.

(b) The commission will, in its discretion, also require SSV's or SSSV's, or both, on wells in other areas, after notice and an opportunity for hearing in accordance with 20 AAC 25.540.

(c) A representative of the commission will witness operation and performance tests at intervals and times as prescribed by the commission to confirm that the SSV, SSSV, and all associated equipment are in proper working condition. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.270. INITIAL RESERVOIR PRESSURE. The operator shall determine the initial reservoir pressure in any new pool before significant production. The results must be reported to the commission on the form entitled Reservoir Pressure Report (Form 10-412). (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.275. RESERVOIR FLUID PROPERTIES. (a) The operator shall obtain fluid samples from each new pool within three months after discovery, and determine

- (1) crude composition assay;
- (2) crude pressure, volume, temperature (PVT) relationship;
- (3) solution or non-associated gas composition assay.

(b) Sampling and determinations must be conducted and reported in accordance with accepted industry practice. Reports must be submitted to the commission within 45 days

following completion of determinations. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.280. WORKOVER OPERATIONS.

(a) An application for well workover operations must be submitted by filing the form entitled Application for Sundry Approvals (Form 10-403). The application must be approved by the commission before entering a producible or injection well to conduct the following operations:

- (1) perforate or reperforate casing,
- (2) stimulate,
- (3) pull tubing,
- (4) alter casing,
- (5) repair well.

(b) The Form 10-403 filing must set out the following:

- (1) the current condition of the well;
- (2) a copy of the proposed program for well work;
- (3) a diagram and description of the BOP equipment required by 20 AAC 25.285(a) and the static bottom-hole pressure;
- (4) a description of the workover fluid to be used for primary well control.

(c) The operator shall keep records and reports of well workover and repair operations in conformance with the requirements of 20 AAC 25.070(a).

(d) The operator shall file with the commission, within 30 days after completion of workover and repair operations, a complete well record on a Report of Sundry Well Operations (Form 10-404), including a copy of the daily reports of well operations and the tests as required by 20 AAC 25.070(a)(1). (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.285. BLOWOUT PREVENTION EQUIPMENT FOR WORKOVER OPERATIONS. (a) General BOPE requirements for workover of a well.

(1) a schematic diagram of the BOP must be submitted with the Application for Sundry Approvals (Form 10-403). A BOP and related well control equipment must be installed, used, maintained, and tested in a manner necessary to assure well control.

(2) the working pressure of a blowout preventer (BOP) must exceed the anticipated surface pressure to which it may be subjected.

(b) A BOPE assembly must be installed, as appropriate, for the proposed downhole operations as follows:

(1) for production tubing and drill pipe operations, a BOPE assembly including choke and kill line in accordance with API RP 53 "Recommended Practices for Blowout Prevention Systems";

(2) for coil tubing operations, a stuffing box and BOP with blind/shear and tubing rams with hydraulic slips;

(3) for braided and slickline operations, a lubricator with stuffing box and wireline rams;

(4) for downhole operations not covered by this subsection, the commission will, in its discretion, approve alternate BOPE installations.

(c) A BOPE assembly required by (b)(1) of this section must be pressure tested in accordance with API RP 53 "Recommended Practice for Blowout Prevention Systems" before well bore entry. Sufficient notice must be given so that a representative of the commission may witness the test. A BOP must be function-tested weekly after that.

(d) A BOPE assembly for coiled tubing and wireline operations must be pressure tested following installation and at least weekly after that. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

ARTICLE 4. REPORTS

Section

- 300. Request for additional information
- 310. Books and records
- 320. Filing of forms

20 AAC 25.300. REQUEST FOR ADDITIONAL INFORMATION. This chapter does not limit or restrict the authority of the commission to require the furnishing of such additional reports, data, or other information relative to drilling, production, transportation, storage, or handling of crude oil or natural gas and injection operations on oil and gas properties and units in Alaska, as may appear to it to be necessary or desirable, either generally or specifically, for the prevention of waste, protection of correlative rights, the movement of fluids into fresh-water sources and the conservation of the natural resources. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030
AS 31.05.095

20 AAC 25.310. BOOKS AND RECORDS. All operators, producers, transporters, storers, and handlers of crude oil and natural gas on oil and gas properties and units within Alaska shall make, and keep in Alaska for a period of not less than five years, appropriate books and records covering their operation in Alaska. The data from these books and records must be used to make and substantiate the reports required by this chapter. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.320. FILING OF FORMS. (a) Where this chapter requires forms to be filed, the completed forms must be submitted to the Alaska Oil and Gas Conservation Commission at 3001 Porcupine Drive, Anchorage, Alaska 99501-3192. One originally signed, state-printed form, not a copy, must be submitted with the required number of copies indicated on each form.

(b) Forms required by this chapter will be furnished by the commission upon request. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

**ARTICLE 5.
ENHANCED RECOVERY**

Section

- 400. (Repealed)
- 402. Enhanced recovery operations
- 410. (Repealed)
- 412. Casing, cementing and tubing of injection wells for enhanced recovery, disposal and storage
- 420. Notice of commencement and discontinuance of injection operations
- 430. Enhanced recovery records
- 432. Report of underground injection
- 440. Freshwater aquifer exemption
- 450. Underground injection control variances
- 460. Area injection orders

20 AAC 25.400. APPLICATION FOR ADDITIONAL RECOVERY. Repealed 4/2/86.

20 AAC 25.402. ENHANCED RECOVERY OPERATIONS. (a) Enhanced recovery operations involving the introduction of extraneous forms of energy into a pool by injection are prohibited, except as ordered by the commission in response to a letter of application for injection filed by an operator for an enhanced recovery project. An order authorizing injection for enhanced recovery projects remains valid unless revoked by the commission.

(b) The operator has the burden of demonstrating that the proposed operation will not allow the movement of fluid into sources of freshwater. Injection wells must be cased, and the casing cemented in a manner that will protect oil, gas, and freshwater sources.

(c) The application must include

(1) a plat showing the location of all proposed injection wells, including abandoned wells, production wells, dry holes, and any other wells that penetrate the injection zone within one-quarter mile of each proposed injection well;

(2) a list of all operators and surface owners within one-quarter mile radius of each proposed injection well;

(3) an affidavit showing that the operators

and surface owners within a one-quarter mile radius have been provided a copy of the application for injection;

(4) a full description of the particular operation for which approval is requested;

(5) the names, description, and depth of the pools to be affected;

(6) the name, description, depth, and thickness of the formation into which fluids are to be injected, and appropriate geological data on the injection zone and confining zones, including lithologic descriptions and geologic names;

(7) logs of the injection wells if not already on file, or other similar information;

(8) a description of the casing of the injection wells, or the proposed casing program, and the proposed method for testing casing before use of the injection wells;

(9) a statement of the type of fluid to be injected, its composition, its source, the estimated maximum amounts to be injected daily, and compatibility with the receiving formation and confining zones;

(10) the estimated average and maximum injection pressure;

(11) evidence and data to support a commission finding that each proposed injection well will not initiate or propagate fractures through the overlying strata or confining zones which might enable the injection fluid or formation fluid to enter any freshwater strata;

(12) an analysis of the water within the formation into which fluid injection is proposed by a standard laboratory water analysis determination or by an analytical method acceptable to the commission;

(13) reference to any applicable freshwater exemption issued under 20 AAC 25.440; and

(14) the expected incremental increase in ultimate hydrocarbon recovery.

(d) Mechanical integrity for injection wells drilled or converted to injection wells after the effective date of approval of the commission's program under 42 U.S.C. 300h-4 must be demonstrated under 20 AAC 25.412 before operation. Mechanical integrity of all injection wells must be demonstrated by the operator by monitoring the pressure in the casing-tubing annulus during actual injection. The monitored annulus pressure must be reported monthly on the Monthly Injection Report (Form 10-406).

(e) If the casing-tubing annulus pressure subjects the casing to a hoop stress that exceeds 70 percent of the minimum yield strength of the casing, or if there is more than a 200 psi change in pressure between consecutive pressure readings, the commission must be immediately notified and commission-approved corrective action taken.

(f) The commission will, in its discretion, require additional mechanical integrity tests.

(g) Modifications of existing or pending injection operations will be approved by the commission, in its discretion, under 20 AAC 25.507 upon application containing sufficient detail to evaluate the proposed modification if there has been no change in geologic, regulatory, or environmental situations. No modification will be approved unless the applicant proves to the commission that the modification or variation will not allow the movement of fluids into sources of freshwater.

(h) The operator shall provide a report on the mechanical condition of all wells that have penetrated the injection zone within a one-quarter mile radius of an injection well. It is the operator's responsibility to assure that any wells under the operator's control within that radius, which may allow the movement of fluids into sources of freshwater, are properly repaired, plugged, or otherwise modified. If wells exist which are not under the operator's control, the commission will not approve the application until the operator responsible for these wells has properly repaired, plugged, or otherwise modified the wells to prevent the movement of fluids into sources of freshwater.

(i) The commission will publish notice of the enhanced recovery application and provide opportunity for a hearing in accordance with 20 AAC 25.540.

(j) If injection operations are not begun within 24 months after the approval date, the enhanced recovery approval will expire unless a letter of application for extension is approved by the commission. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.410. INJECTION WELLS. Repealed 4/2/86.

20 AAC 25.412. CASING, CEMENTING AND TUBING OF INJECTION WELLS FOR ENHANCED RECOVERY, DISPOSAL AND STORAGE. (a) Wells that inject fluids for enhanced recovery of oil or gas, for disposal of non-hazardous oil field waste fluids, or for storage of liquid hydrocarbons, must be cased with safe and appropriate casing and be tubed to prevent leakage, and must be cemented to protect oil, gas, and freshwater sources.

(b) A new well drilled for the injection of fluids must be cased, cemented, and pressure tested in conformance with 20 AAC 25.030.

(c) An existing well newly converted for injection of fluids may not be operated before pressure testing the casing immediately exterior to the injection tubing string. The casing must be tested at a surface pressure of 1,500 psig or 0.25 psi/ft multiplied by the true vertical depth of the casing shoe whichever is greater, but must not subject the casing to a hoop stress that will exceed 70 percent of the minimum yield strength of the casing. If the pressure declines more than 10 percent within 30 minutes, corrective measures must be taken until a satisfactory pressure test is achieved.

(d) Fluid injection wells must be equipped with tubing and packer, or other equipment which isolates pressure to the injection interval. The minimum burst pressure of the tubing must exceed the maximum surface injection pressure by at least 25 percent.

(e) Sufficient notice of pressure tests required by (c) must be given so that a representative of

the commission may witness the test. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.420. NOTICE OF COMMENCEMENT AND DISCONTINUANCE OF INJECTION OPERATIONS. (a) At least 10 days before beginning an injection operation or program, the operator shall notify the commission of the intended injection date.

(b) Within 10 days after discontinuing an injection operation or program, the operator shall notify the commission of the date of discontinuance and the reasons for it. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.430. ENHANCED RECOVERY RECORDS. Each operator shall keep accurate records showing volumes of fluids produced, injected volumes, reservoir pressures, and injection pressures, by well and pool. Each operator shall retain these records for five years. The commission will, in its discretion, specify retention of these records for a longer time period. Upon reasonable notice, the commission or its authorized representative must be given full access during normal business hours to all records. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.432. REPORT OF UNDERGROUND INJECTION. Each operator who injects fluids into subsurface strata through a service well for any purpose, other than fracturing, acidizing, or other similar treatment, shall file with the commission monthly reports that show all injected volumes and other data, by well and pool, as required by the commission on forms entitled Monthly Injection Report (Form 10-406), Report of Injection Projects (Form 10-413) and, if applicable, the Producer's Report of Gas Disposition (Form 10-422). Computerized forms may be submitted in place of the required forms if they contain the same required information and have been approved for format by the commission. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.440. FRESHWATER AQUIFER EXEMPTION. (a) Upon receipt of a letter of application, and in accordance with (b) of this section, the commission will, in its discretion, issue an order designating a freshwater aquifer or portion of it as an exempt freshwater aquifer, if the freshwater aquifer meets the following criteria:

(1) it does not currently serve as a source of drinking water, and it cannot now and will not in the future serve as a source of drinking water because

(A) it is hydrocarbon-producing or can be demonstrated by the applicant to contain hydrocarbons that, considering their quantity and location, are expected to be commercially producible;

(B) it is situated at a depth or location that makes recovery of water for drinking water purposes economically or technologically impractical; or

(C) it is so contaminated that recovery of water for drinking water purposes is economically or technologically impractical; or

(2) the total dissolved solids content of the ground water is more than 3,000 and less than 10,000 mg/l, and it is not reasonably expected to supply a public water system.

(b) To apply for exemption of a freshwater aquifer, an operator shall submit to the commission a letter of application that includes sufficient data to justify the proposal, including data to substantiate that the criteria in (a) of this section are met. The commission will provide 15 days legal notice and the opportunity for a public hearing on the matter in accordance with 20 AAC 25.540.

(c) Freshwater aquifers within Alaska that are designated as exempt aquifers by the United States Environmental Protection Agency at the time the commission is granted primary enforcement responsibility under 42 U.S.C. 300h-4 will be accepted as exempt aquifers by the commission without further action. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.450. UNDERGROUND INJECTION CONTROL VARIANCES. (a) If injection does not occur into, through, or above a freshwater source or non-exempt freshwater aquifer, the commission will, in its discretion, authorize less stringent requirements for a well or project than otherwise required by this chapter, for radius of investigation, casing and cementing, mechanical integrity, operation, monitoring, and reporting, to the extent that the reduction in requirements will not result in an increased risk of movement of fluids into a freshwater source.

(b) At the discretion of the commission, pilot projects for enhanced recovery using a technology not proved feasible under the conditions in which it is being tested may be operated with less stringent requirements for well construction, operation, monitoring, and reporting, if the project will not result in an increased risk of fluid movement into freshwater sources. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.460. AREA INJECTION ORDERS. (a) Upon application under this section, the commission will, in its discretion, after legal notice and opportunity for public hearing in accordance with 20 AAC 25.540, issue an order permitting the underground injection of fluids on an area basis, rather than for each well individually, if the wells are

(1) described and identified by location in the application if they are existing wells, except that the commission will, in its discretion, accept a single description of wells with substantially the same characteristics;

(2) within the same field, facility site, reservoir, project, or similar area;

(3) operated by a single operator; and

(4) used to inject other than hazardous waste.

(b) The area injection order will specify

(1) the area and strata within which underground injections are authorized; and

(2) the requirements for drilling, operating, monitoring, reporting, and abandoning all wells authorized by the order.

(c) The area injection order will, in the commission's discretion, authorize the operator to drill and operate, convert, or plug and abandon wells within the area if

(1) the operator files with the commission a Form 10-401 or Form 10-403, as appropriate, for approval before work; and

(2) the cumulative effects of drilling and operating additional injection wells are considered by the commission during evaluation of the area injection order application and are acceptable to the commission.

(d) If the commission determines that any well drilled and operated under an area injection order does not satisfy all of the requirements of this section, the commission will take enforcement action to ensure compliance. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

ARTICLE 6. GENERAL PROVISIONS

Section

- 505. Scope of regulations
- 507. Change of an approved program
- 510. Commission office, hours, and seal
- 515. U.S. government leases
- 517. Plan for pool development and operation, and integration of interests
- 520. Field and pool regulation and classification
- 525. (Repealed)
- 526. Conduct of operations and fire hazard
- 528. Open pit storage of oil
- 530. Cooperation with other parties
- 534. Tests, surveys, and remedial measures
- 536. (Repealed)
- 537. Public and confidential well information
- 538. (Repealed)
- 540. Hearings
- 545. Public mailing lists
- 550. Oaths
- 555. (Repealed)
- 557. Subpoenas
- 570. Definitions

20 AAC 25.505. SCOPE OF REGULATIONS.

(a) This chapter generally consists of statewide regulations which apply to all wells, pools, fields, and oil and gas properties, unless the commission, in its discretion, issues an order in conformance with 20 AAC 25.540.

(b) An order issued in conformance with 20 AAC 25.540 prevails over this chapter except for those regulations which govern underground injection and the protection of freshwater. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030
AS 31.05.060
AS 31.05.100

20 AAC 25.507. CHANGE OF AN APPROVED PROGRAM. If unexpected conditions necessitate a substantive change in an approved program application, complete details of the current condition and the proposed change must be submitted to the commission with the Application for Sundry Approvals (Form 10-403). A change of an approved program may not be undertaken without commission approval. If prompt approval is needed, verbal approval may be obtained from the commission or its authorized representative, and the required Form 10-403 submitted, on the commission's next working day, setting out the name of the person who provided verbal approval and the date of the verbal approval. The commission will condition its approval as necessary to protect oil, gas and freshwater sources. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030
AS 31.05.095

20 AAC 25.510. COMMISSION OFFICE, HOURS, AND SEAL. (a) The principal office of the Alaska Oil and Gas Conservation Commission is located at 3001 Porcupine Drive, Anchorage, Alaska 99501-3192. The commission's telephone number is (907) 279-1433.

(b) The office of the commission is open for the transaction of business each day from 8:00 a.m. until 12:00 noon and from 1:00 p.m. until 4:30 p.m., except Saturday, Sunday, and every state holiday. A commission representative will be available after normal office hours and on weekends and state holidays through an answering service by calling the number given in (a) of this section.

(c) The official seal of the commission is reproduced below.



(Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.017
AS 31.05.030

20 AAC 25.515. U.S. GOVERNMENT LEASES. A person, including a federal agency, drilling for or producing oil or natural gas or conducting underground injection activities related to the recovery and production of oil or gas on federal land shall comply with all applicable regulations and orders of the commission. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.517. PLAN FOR POOL DEVELOPMENT AND OPERATION, AND INTEGRATION OF INTERESTS. (a) Before the development and operation of an oil or gas pool, the operator shall submit to the commission for approval a plan of development and operation for the pool or the portion of the pool for which development is contemplated by the operator. This plan of development and operation must be updated and submitted to the commission for approval at least 90 days before the expiration date of the previously approved plan, as set out in that plan. If properties to be developed are leased from the state, and committed to a unit approved by the commissioner of the Department of Natural Resources under AS 38.05.180, the plan of development and operation, and all updated plans of development and operation, required by AS 38.05.180, must be submitted to the commission for informational purposes.

(b) The plan of development and operation must provide for

(1) the prevention of waste;

(2) the protection of correlative rights for the owner of each property in the pool; and

(3) the maximum ultimate recovery of oil and gas that is prudent.

(c) A copy of an agreement validly integrating the interests of all persons owning interests in affected property in the pool or portion of the pool for which development is contemplated by the operator must be filed with the commission no later than 30 days before the commencement of regular production from the pool. In the absence of an agreement, the commission will, in its discretion, after notice and public hearing in accordance with 20 AAC 25.540, issue an order creating a unit, or an area of participation within a unit, which integrates the interests of all persons owning an interest in the pool or a portion of the pool. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030
AS 31.05.110

20 AAC 25.520. FIELD AND POOL REGULATION AND CLASSIFICATION. (a) Upon the motion of the commission, or the request of an affected property operator or owner at any time after the discovery of oil or gas in a field or pool, a hearing will be held in accordance with 20 AAC 25.540 and the commission will issue an order, based upon the evidence presented, classifying the pool as an oil or gas pool in a field and prescribing rules for the development of the pool. A pool order so issued will

(1) prevent waste, protect freshwater, and protect correlative rights; and

(2) be based on the operating and technical data presented.

(b) The commission will, in its discretion, reclassify fields and pools, or amend pool orders, upon the presentation of additional data at a subsequent hearing. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030 AS 31.05.095
AS 31.05.060 AS 31.05.100

20 AAC 25.525. FORMS UPON REQUEST.
Repealed 4/2/86.

20 AAC 25.526. CONDUCT OF OPERATIONS AND FIRE HAZARD. An operator shall carry on all operations and maintain the property at all times in a safe and skillful manner in accordance with industry practices, and having due regard for the preservation and conservation of the property and protection of freshwater. Each well location and property must be maintained in a manner to prevent fires. All rubbish, debris, waste material, spilled oil, and any other substance that constitutes a fire hazard must be disposed of in an environmentally safe manner. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.528. OPEN PIT STORAGE OF OIL. An operator may not, except during an emergency, store or retain crude oil in an open earthen confinement or in an open receptacle. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030
AS 31.05.095

20 AAC 25.530. COOPERATION WITH OTHER PARTIES. The commission will, in its discretion, from time to time enter into arrangements with state and federal agencies, industry committees, or individuals, with respect to special projects, services, and studies relating to underground fluid injection and the conservation of oil and gas. If an arrangement requires the commission to use procedures not covered in this chapter, the procedures necessary to carry out the intent of the arrangement will be formulated and made available at the office of the commission after public notice and opportunity for public comment. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.023
AS 31.05.030

20 AAC 25.534. TESTS, SURVEYS, AND REMEDIAL MEASURES. When considered necessary or advisable to carry out the purposes of the Alaska Oil and Gas Conservation Act and this chapter, the commission will require that tests or surveys be made to determine the quality of oil and gas produced; the formation, casing, tubing, or other pressures; the existence of any waste of crude oil, gas, or reservoir energy; or the risk of fluid movement into freshwater sources. The commission will, in its discretion, exercise its statutory power to enter

and conduct on-site investigations and inspections at reasonable times of facilities, equipment, practices, records, or operations for the purpose of ensuring compliance with the requirements of this chapter. If it is determined that the requirements of this chapter are not being met, the commission will order remedial work or take other action it considers necessary. (Eff. 4/2/86, Reg. 97)

Authority: AS 31.05.030

20 AAC 25.536. GEOLOGIC DATA AND LOGS. Repealed 4/2/86.

20 AAC 25.537. PUBLIC AND CONFIDENTIAL WELL INFORMATION. (a) The commission will routinely make available to the public, by means of records or reports, in its offices or elsewhere, or by means of regular publication, the following information:

(1) surface and proposed bottom-hole location of each well, after approval of the Permit to Drill (Form 10-401);

(2) total depth, bottom-hole location and well status after the Well Completion or Re-completion Report and Log (Form 10-407) is filed;

(3) regular production data and regular production reports, as required to be filed by the operator each month;

(4) injection data and injection reports, as required to be filed by the operator each month; and

(5) all data filed on a well as required by this chapter upon expiration of the confidential period described in (d) of this section.

(b) Information not required by this chapter, but voluntarily filed with the commission will be kept confidential if the person filing the information so requests.

(c) In this section, "well status" means the classification of a well as oil, gas, service, suspended, or abandoned.

(d) Except as provided by (a) of this section, the reports and information required by this

chapter to be filed by the operator will be kept confidential by the commission for 24 months following the 30-day filing period after well completion, suspension, or abandonment unless the operator gives written and unrestricted permission to release all of the reports and information at an earlier date. Upon notification that the commissioner of the Department of Natural Resources has made a finding that the required reports and information from a well contain significant information relating to the valuation of unleased land in the same vicinity, the commission will hold the reports and information confidential beyond the 24-month period and until notified by the commissioner of the Department of Natural Resources to release the reports and information.

(e) Notwithstanding (b) or (d) of this section, any information obtained or used by the commission in the administration of its program under 42 U.S.C. 300h-4 (Safe Drinking Water Act of 1974, as amended, 42 U.S.C. 300f - 300j)

(1) will be made available to the public unless the material has been claimed confidential and has been determined by the commission to be entitled to confidential treatment; claims of confidentiality will be denied for the following:

(A) the name and address of any applicant for underground injection of fluids, and

(B) information that deals with the existence, absence, or level of contaminants in freshwater;

(2) will be made available to the U.S. Environmental Protection Agency upon request; if the information has been submitted to the commission under claim of confidentiality, the commission will submit that claim to the U.S. Environmental Protection Agency when providing the information. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.026
AS 31.05.030

AS 31.05.035
AS 31.05.170

20 AAC 25.538. NAMING OF FIELDS AND POOLS. Repealed 4/2/86.

20 AAC 25.540. HEARINGS. (a) On its own motion or if a written request is received to issue an order affecting a single well or a single field, the commission will publish notice in an appropriate newspaper. The notice will set out the essential details of the requested order and provide the opportunity for a public hearing. The notice will specify the place, the time, and the date for the opportunity to be heard, that will be scheduled not less than 30 calendar days following the date of publication. A proper protest and request in writing for a hearing must be filed with the commission at its office in Anchorage, Alaska, within 15 days after the publication date by any person who may be harmed if the requested order is issued. If a protest is timely filed, a hearing will be held on the date and time specified in the notice. If no protest is timely filed, the commission will, in its discretion, issue an order without a hearing.

(b) On its own motion or if a written request for a public hearing is received concerning a matter within the jurisdiction of the commission under this chapter, the commission will publish notice in an appropriate newspaper. The notice will provide the essential details of the matter and set out the place for the public hearing, the date, and the time for the public hearing. The hearing will be scheduled not less than 30 calendar days after the date of publication.

(c) The following is the procedure for public hearings conducted under (a) and (b) of this section:

(1) the hearing will be called to order and the subject of the hearing, along with the date and place of public notice given for the hearing, will be read into the record;

(2) the commission will receive both sworn testimony and unsworn statements; it will give greater weight in its deliberations to sworn testimony;

(3) all persons wishing to testify will be sworn;

(4) each witness shall state his or her name and whom he or she represents;

(5) each witness who wishes to give expert

testimony shall state his or her qualifications, and the commission will rule on whether the witness qualifies as an expert;

(6) the applicant will be asked to present testimony first; all others wishing to present testimony will be heard next; upon request, the commission will, in its discretion, allow cross-examination of witnesses by the applicant or affected owners;

(7) a person wishing to make an oral statement will be allowed to do so after the conclusion of all testimony;

(8) a person wishing to submit a written statement will be allowed to do so after the conclusion of the oral statements;

(9) the commission will, in its discretion, ask questions of a witness;

(10) no member of the audience will be permitted to ask questions of witnesses directly; to have a question directed to a witness, the person must write the question down and give it to a designated commission representative indicating to whom the question should be directed; before the end of the hearing, the commission will review these questions and ask those which it believes will be helpful in eliciting needed information; all questions will be included in the public record; and

(11) a written transcript of the hearing will be prepared and included in the public record of the hearing.

(d) Hearings on matters of statewide or general application will be held under the applicable provisions of AS 44.62 (Administrative Procedure Act). (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030
AS 31.05.050
AS 31.05.060

20 AAC 25.545. PUBLIC MAILING LISTS. Public mailing lists will be maintained by the commission for the purpose of sending appropriate notices, orders, and publications to

persons who request to be put on these lists.
(Eff. 4/13/80, Reg. 74)

Authority: AS 31.05.030 AS 31.05.050
AS 31.05.035 AS 31.05.060

20 AAC 25.550. OATHS. Each member of the commission has the power to administer oaths to witnesses in any hearing, investigation, or proceeding conducted under AS 31.05 and this chapter. (Eff. 4/13/80, Reg. 74)

Authority: AS 31.05.030
AS 31.05.070

20 AAC 25.555. ORDERS. Repealed 4/2/86.

20 AAC 25.557. SUBPOENAS. (a) The commission will, in its discretion, issue subpoenas and subpoenas duces tecum.

(b) Subpoenas duces tecum for the production of books, records, papers, or other documents of any sort will, in the commission's discretion, be issued by the commission upon a written request. The applicant must establish that he or she has a proper relation to the matter, and must show the relevance of the evidence sought and the facts expected to be proved by them.

(c) The issuance of a subpoena requiring the attendance of a witness for the purpose of taking oral testimony before the commission will, in the commission's discretion, be issued by the commission upon a written request. The applicant must establish that he or she has proper relation to the matter and give the name and address of the desired witness. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030
AS 31.05.070

20 AAC 25.570. DEFINITIONS. In this chapter, unless the context clearly requires otherwise,

(1) "abandoned well" means a well that has been plugged as required by 20 AAC 25.105;

(2) "abandonment operations" means work performed as required by 20 AAC 25.105 in a dry hole or an oil, gas, service, or suspended well to effect abandonment;

(3) "abnormally geo-pressured strata" means

subsurface zones where the pore pressure exceeds the calculated hydrostatic pressure for the depth of the strata using a hydrostatic pressure gradient of 0.50 psi/ft;

(4) "actual drilling operations" means the actual penetration of ground below the setting depth of structural or conductor casing, whichever is first set, by the drill bit, using a drilling unit capable of performing the permitted well work, and includes the running of casing, cementing, and other downhole work performed ancillary to formation evaluation, and drilling the well to the permitted depth;

(5) "API" means the American Petroleum Institute;

(6) "API Specifications" means those API specifications that are in effect at the time these regulations take effect;

(7) "API Standards" means those API standards that are in effect on 4/2/86;

(8) "API RP" means those API recommended practices that are in effect at the time these regulations take effect;

(9) "barrel" means 42 U.S. gallons, measured under standard conditions;

(10) "BOP" means blowout preventer, which is a casinghead assembly equipped with special gates or rams or other packoffs which can be closed around the drill pipe, tubing, casing, or tools, and which completely closes the top of the casing to control well pressure;

(11) "BOPE" means blowout prevention equipment;

(12) "commission" means the Alaska Oil and Gas Conservation Commission;

(13) "completed well" means a well that has been drilled and equipped as a producible or service well;

(14) "completion operations" means the work performed in an oil, gas, or service well after the casing and cementing of the well bore, and includes plugging, perforating, stimulating,

- testing, and equipping the well as a producible or service well;
- (15) "day" means a calendar day;
- (16) "development well" means a well drilled to a known productive pool;
- (17) "drilling fluid" means any fluid used for the purpose of drilling a well;
- (18) "drilling permit" means a Permit to Drill (Form 10-401) that has been approved by the commission;
- (19) "drilling unit" means that area of a pool set by the commission, either by order or regulation, to which no more than one oil or gas well may be drilled or produced;
- (20) "exploratory well" means a well that is drilled to discover a pool;
- (21) "fluid" means any material or substance which flows or moves, whether in a semi-solid, liquid, sludge, gas, or other form or state;
- (22) "freshwater" means water having a total dissolved solids concentration of less than 10,000 milligrams per liter that occurs in strata not exempted by 20 AAC 25.440, or water that occurs in strata that supply a source of drinking water for human consumption;
- (23) "gas-oil ratio" means the cubic feet of gas determined under standard conditions, that are produced per barrel of oil produced;
- (24) "gas well" means a well that produces natural gas from a pool where all of the hydrocarbons in the pool exist in the gaseous phase at the original temperature and pressure conditions of the pool;
- (25) "injection" means the subsurface emplacement of fluid for enhanced recovery of oil or natural gas, disposal of water or other oil field waste fluids, or for the underground storage of hydrocarbons that are liquid at standard conditions;
- (26) "multiple completion" means the completion of a well so as to permit production from more than one pool, with the production from each pool completely segregated;
- (27) "oil well" means a well that produces hydrocarbons from a pool where some of the hydrocarbons in the pool exist in the liquid phase at the original temperature and pressure conditions of the pool;
- (28) "operator" means an owner or a person authorized by an owner who is responsible for drilling, development, production, injection and abandonment operations;
- (29) "potential" means the actual or computed daily ability of a well to produce oil or gas;
- (30) "property" means a legally described tract of land, submerged or otherwise, to which a person has the exclusive right to drill, extract, remove, clean, process and dispose of oil, gas, and associated substances;
- (31) "reservoir" means the same as pool in AS 31.05.170;
- (32) "service well" means a well drilled or completed for the purpose of supporting production in an existing field; service wells are drilled for gas injection, water injection, steam injection, air injection, salt water and oil field waste disposal, liquid hydrocarbon storage, water supply for injection, observation, and injection for in-situ combustion;
- (33) "spud date" means the day that actual drilling operations commence;
- (34) "standard conditions" means a temperature of 60 degrees Fahrenheit and an absolute pressure of 14.65 pounds per square inch;
- (35) "stratigraphic test" means a hole drilled for the sole purpose of gaining structural or stratigraphic information, or both;
- (36) "suspended well" means a well that has been plugged as required by 20 AAC 25.105 and held in abeyance pending a determination to either complete the well as a service or producible well or to abandon the well;

(37) "suspension operations" means work performed as required by 20 AAC 25.105 in a well bore to effect well suspension;

(38) "unit" means an aggregation, by voluntary agreement, or order of the commission, of properties overlying a pool to form a single property unit for the purpose of pool development and operation in a manner to prevent waste, insure greater ultimate recovery of oil and gas and protect correlative rights;

(39) "well abandonment date" means the day that abandonment operations cease;

(40) "well completion date" means the day that completion operations cease;

(41) "well suspension date" means the day that suspension operations cease. (Eff. 4/13/80, Reg. 74; am 4/2/86, Reg. 97)

Authority: AS 31.05.030