

Ministerial Regulation Prescribing rules and procedures for production operations  
Issued under the provisions of the Petroleum Act B.E. 2514  
No.12 (B.E. 2524)

In exercise of the power conferred by Section 14(1) of the Petroleum Act B.E. 2514, the Minister of industry hereby issues the following Ministerial Regulation:

1. The provisions of paragraphs 13, 14 and 15 of the Ministerial Regulation No. 5 (B.E. 2514) issued under the provisions of the Petroleum Act B.E. 2514 shall be hereby repealed and replaced by the following:

"13. In the production of offshore petroleum, the concessionaire shall construct integrated permanent production platform, consisting of well platform, production platform, flare platform and other platforms as necessary for the production, all of which may be constructed as consolidated one or as separate platforms:

14. Before constructing an integrated permanent production platform the concessionaire shall furnish the Director-General in writing not less than forty five days In advance with the following information:

- (1) Location of the integrated permanent production platform, including thereof the bathymetry, current, wave, wind, storm, soil and geological conditions at the site.
- (2) Standard used in the design of the construction, construction drawings, calculation and design of construction materials, including other details of the integrated permanent production platform.
- (3) Measures in preventing corrosion of the integrated permanent production platform.
- (4) Fire prevention system on the integrated permanent production platform.
- (5) Marine navigation aid system. In the case there is a change in the information under the first paragraph, the concessionaire shall notify the Director-General in writing of such change within fifteen days. If the Director-General finds the information furnished under the first or the second paragraph inadequate and instructs the concessionaire to rectify the matter, the concessionaire shall so comply.

15. Before installing an integrated permanent production platform, the concessionaire shall furnish the Director-General in writing not less than fifteen days in advance with the information on methods of installation and the details in calculating the installation, including the time and place to install such platform."

2. The following provisions shall be added as paragraph 16, 17, 18, 19, 20, 21,22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, and 40 of the Ministerial Regulation No. 5 (B.E. 2514) issued under the provisions of the Petroleum Act B.E. 2514.

"16. In the production of natural gas, natural gas liquid or crude oil, the concessionaire shall install suitable equipment for measuring the flow rate of natural gas, natural gas liquid or crude oil, as the case may be.

17. The gas meter, the installation, method of measurement, and calibration shall be in compliance with the standard of the American Gas Association.

18. After having selected the gas meter, the concessionaire shall furnish the Director-General in writing with the following information:

- (1) type, size and specifications of the meter,
- (2) formula used in determining the flow rate,
- (3) plan showing the installed position of the equipment under (1),

19. Before calibrating the gas meter for the first time, the concessionaire shall give to the Director-General a written prior notice of not less than thirty days. Calibration under the first paragraph shall be performed in the presence of the competent officer, for whom the concessionaire shall bear all expenses.

20. The concessionaire shall prevent bypassing of the meter; and in measuring the flow rate of natural gas, the concessionaire shall:

- (1) calculate the volume of natural gas at 60 F and absolute pressure of 14.7 pounds per square inch,
- (2) use atmospheric pressure of 14.7 pounds per square inch for calibration of the gas meter,
- (3) calibrate the gas meter every thirty days, and in the presence of the competent officer,
- (4) not disassemble the gas meter, except with the permission of the competent officer.

21. When it appears that the gas meter not registers within the limits of accuracy prescribed by the manufacturer by more or less than 2 per cent, the concessionaire shall immediately adjust the volume as follows:

- (1) In the case the time the error occurred is ascertainable, the volume adjustment shall be calculated from the time the error occurred.
- (2) In the case the time the error occurred is not ascertainable the volume adjustment shall be applied to one-half of the time elapsed since the last calibration and the new one.

22. In the case the gas meter has become damaged or out of service by whatever reason, the concessionaire shall estimate the volume of natural gas delivered through the period during which the equipment has become damaged or out of service on the basis of the best data available as approved by the Director-General.

23. Measurement equipment for natural gas liquid or crude oil shall consist at least of the following:

- (1) sales meter,
- (2) meter prover,
- (3) natural gas liquid or crude oil sampling device,
- (4) de-aerator,
- (5) basic sediment and water monitor.

The declaration and first calibration of natural gas liquid or crude oil sales meter shall be in accordance with paragraphs 18 and 19 *mutatis mutandis*.

24. Natural gas liquid or crude oil sales meter shall be of a positive- displacement types or other types as approved by the Director-General.

25. The concessionaire shall prevent bypassing of the meter and in measuring the flow rate of natural gas liquid or crude oil, the concessionaire shall:

- (1) not use the meter with the pressure and flow rate of natural gas liquid or crude oil higher or lower than its maximum or minimum capacity;
- (2) not use the meter with natural gas liquid or crude oil which has specific gravity range beyond those specified;
- (3) use the pressure surge tank or other equipment as approved by the Director-General to maintain pressure level of natural gas liquid or crude oil;
- (4) not subject the meter to shock pressures which are greater than its maximum working pressure;
- (5) not reset the totalizer;
- (6) not disassemble the meter or its facilities, except with the permission of the competent officer.

26. Natural gas liquid or crude oil meter prover shall be one of the following types:

- (1) Prover Tank
- (2) Master Meter
- (3) Mechanical-Displacement Prover

27. Natural gas liquid or crude oil sampling device shall be of a proportional- to-flow type.

28. In the installation of natural gas liquid or crude oil sampling device, the concessionaire shall:

( 1 ) install the sampling device such that the sampling point is in the flowstream immediately upstream of the meter.

(2) install the sampling device such that the sample probe is in the center of flow piping in a vertical run and the probe shall always be in a horizontal position.

(3) not install any valve between the sampling device and the meter.

29. The concessionaire shall keep the samples of natural gas liquid or crude oil in the vapor-tight container.

30. Deaerator shall be of the type which can provide complete air elimination, and installed at the position immediately upstream of the natural gas liquid or crude oil sampling device.

31. Basic sediment and water monitor shall have the following characteristics:

(1) sound an alarm when excessive sediment and water is detected;

(2) shut down the pumps or divert the liquid stream immediately when alarm sounds.

32. Basic sediment and water monitor shall be installed upstream of the de-aerator.

33. Determinations of gravity, average temperature and volume of sediment and water in natural gas liquid and crude oil shall be in compliance with the principles and methods of the American Society for Testing and Materials (ASTM).

34. In calibrating the natural gas liquid or crude oil sales meter the concessionaire shall:

(1) calibrate the meter every thirty days in the case of continuous custody transfer or every time custody transfer is made occasionally from the storage place or as ordered by the Director- General, with reasonable cause, and in the presence of the competent officer,

(2) before using the meter prover, such meter shall be proved by not less than four consecutive runs until the results of two consecutive runs produce results such that the difference between results is not greater than zero point zero five (0.05) per cent; then the meter prover shall be considered reliable and be used.

(3) In calibrating the meter, correction factors shall be taken into account for the pressure, temperature and compressibility of the natural gas liquid and crude oil according to the standard of the American Petroleum Institute (API) and the American Society for Testing and Materials (ASTM), and;

(a) If a Prover Tank is used, the meter factor to be used in the calibration shall be the average of the results of the two consecutive runs which produce results such that the difference between the runs is not greater than zero point zero five (0.05) per cent.

(b) If a Master Meter is used, the instructions of the manufacturer of the meter shall be complied with, and there shall be used in the calibration natural gas liquid or crude oil of similar gravity and flow rate as those flows through such meter. The value of the meter factor to be used in the calibration shall be the average of the results of the three consecutive runs which produce results such that the difference between the runs is not greater than zero point zero two (0.02) per cent, and the volume of natural gas liquid or crude oil flowing through the meter in each run shall be at least 10 per cent of the maximum hourly rated capacity of the meter.

(c) If a Mechanical Displacement Prover is used, the meter factor to be used in the calibration shall be the average of the results of five out of six consecutive runs which produce results such that the difference between the runs is not greater than zero point zero five (0.05) per cent.

35. In calibrating the natural gas liquid or crude oil sales meter under paragraph 34, if the deviation between the factor and the previous factor exceeds zero point two five (0.25) per cent, such meter shall be considered defective.

36. In the case the natural gas liquid or crude oil sales meter is defective according to paragraph 35, or damaged or out of service by whatever reason, the concessionaire shall repair or adjust it to operational condition, and calibrate it prior to return it to service, and the provisions of paragraph 22 shall apply mutatis mutandis.

37. The concessionaire shall report the calibration of the gas meter under paragraph 20 (3) or calibration of the natural gas liquid or crude oil sales meter under paragraph 34 (1) to the Director-General in the form prescribed by the Department of Mineral Resources within seven days from the date of completion of the calibration.

38. In the case where natural gas is associated with crude oil, the concessionaire shall use his reasonable efforts to utilise such natural gas in every possible way. However, if it is not economically feasible to do so, the concessionaire may flare or discard such natural gas in accordance with the procedures approved by the Director-General.

39. Before proceeding to abandon a production well, the concessionaire shall submit in writing to the Director-General for consideration his reasons and procedures to be adopted in the abandon of that particular well and when approval is given by the Director-General, the concessionaire may proceed to do so.

40. Upon completion of work in any specific area, or upon the termination or revocation of the concession, the concessionaire or the person whose concession has been terminated or revoked shall:

- (1) restore, so far as possible, the surface of the land and of the waters to its original condition;
- (2) enclose or keep enclosed with wall or fence all pits, holes, trenches and other excavations which the concessionaire has made and which are still useful in order to prevent any damage to persons or animals;
- (3) fill, so far as possible, all pits, holes, trenches and other excavations which the concessionaire has made and which are no longer to be used, to its original condition, unless otherwise directed by the Director-General or agreed between the concessionaire and the land-owner or land-occupier;
- (4) remove all concrete foundations, structures, buildings, dwellings, machinery, equipment and any other material which are no longer to be used from the vicinity of an exploration or production well, and burn all waste petroleum in that vicinity: provided, however, that the Director-General has not directed otherwise;
- (5) remove or dispose of all obstructions, interferences or dangers to communications, fisheries or the Crown Property or properties of other persons, unless directed otherwise by the Director-General. The concessionaire or the persons whose concession has been terminated or revoked shall complete his performance under the first paragraph within three months from the date of completion of his work or from the date of termination or revocation of the concession, as the case may be"

Given on this 22nd Day of September B.E. 2524

Signature

Major-General Chartichai Choonhawan

Minister of Industry