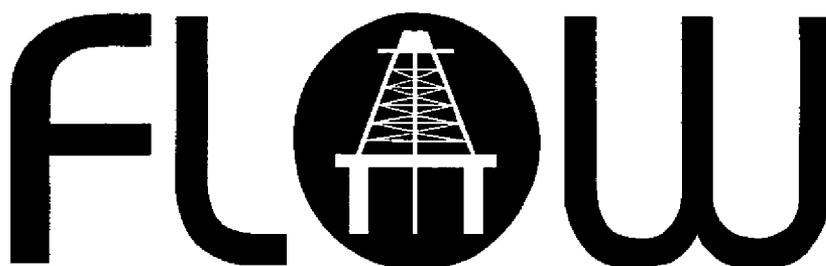


North Sea



Measurement Workshop

1998

PAPER④ - 2.4

**THE STATUS OF FISCAL MEASUREMENT LEGISLATION IN THE UK AND
NORWAY.**

Section A: L Philp, DTI Oil&Gas Office, UK

Section B: S Fosse, NPD, Norway

The Status of Fiscal Measurement Legislation in the UK and Norway.

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THE STATUS OF FISCAL MEASUREMENT LEGISLATION IN THE UK AND NORWAY

Mr L Philp, DTI Oil & Gas Office, UK

1 INTRODUCTION

The basic philosophy underlying the UK's regulatory regime in relation to the measurement of oil and gas produced in the UK and on its continental shelf is that regulations, which are secondary legislation, made under the authority of Acts of Parliament, which are primary legislation, provide for the inclusion within Petroleum Production Licences of terms and conditions which the licensee is obliged to comply with. For the purposes of the legislation "petroleum" is defined in the 1934 Petroleum (Production) Act as:

"petroleum includes any mineral oil or relative hydrocarbon and natural gas existing in its natural condition in strata, but does not include coal or bituminous shales or other stratified deposits from which oil can be extracted by destructive distillation."

2 LEGISLATION

The principle legislation which applies to the oil and gas production industry particularly in relation to petroleum measurement is as follows.

The Petroleum (Production) Act 1934.

The Act vests ownership of the petroleum which exists in its natural condition in strata in Great Britain and beneath the territorial waters of the United Kingdom in the Crown and gives the Secretary of State, on behalf of the Crown, the exclusive right to grant licences to search and bore for and get petroleum. The Act also authorises the Secretary of State to make regulations which, inter alia, prescribe the model clauses for incorporation into such licences.

One of these clauses is referred to in shortened form as the measurement model clause. This clause states what the duties of the licensee are in relation to the measurement of petroleum produced from the licensed area.

The most recent issues of these regulations are:

The Petroleum (Production) (Seaward Areas) Regulations 1996 and,
The Petroleum (Production) (Landward Areas) Regulations 1995.

The Continental Shelf Act 1964

The Act extends the powers conferred by the 1934 Act to the United Kingdom Continental Shelf.

The Petroleum and Submarine Pipelines Act 1975

An act which among other things make further provision about licences to search for and get petroleum.

The Petroleum Act 1987

Sections 17 and 18 and Schedules 1 and 2 to this Act amend the measurement model clauses which were incorporated into licences in force at the time it was enacted.

There has since been a new consolidating act,

The Petroleum Act 1998

This Act draws together the provisions of the other acts. This act has received the Royal Assent but has not yet, at the date of writing, been brought into force. After the coming into force any future regulations will cite the new act as the governing primary legislation.

3 MEASUREMENT MODEL CLAUSES

The measurement model clauses in the seaward regulations are:

(1) The Licensee shall measure or weigh by a method or methods customarily used in good oilfield practice and from time to time approved by the Minister all petroleum won and saved from the licensed area.

(2)* If and to the extent that the Minister so directs, the duty imposed by paragraph (1) of this clause shall be discharged separately in relation to petroleum won and saved -

(a) from each part of the licensed area which is an oil field for the purposes of the Oil Taxation Act 1975,

(b) from each part of the licensed area which forms part of such an oilfield extending beyond the licensed area, and

(c) from each well producing petroleum from a part of the licensed area which is not within such an oilfield.

(3)* If and to the extent that the Minister so directs, the preceding provisions of this clause shall apply as if the duty to measure or weigh petroleum included a duty to ascertain its quality or composition or both; and where a direction under this paragraph is in force, the following provisions of this clause shall have effect as if references to measuring or weighing included references to ascertaining quality or composition.

(4) The Licensee shall not make any alteration in the method or methods of measuring or weighing used by him or any appliances used for that purpose without the consent in writing of the Minister and the Minister may in any case require that no alteration shall be made save in the presence of a person authorised by the Minister.

(5) The Minister may from time to time direct that any weighing or measuring appliance shall be tested or examined in such a manner, upon such occasions or at such intervals and by such persons as may be specified by the Minister's direction and the Licensee shall pay to any such person or to the Minister such fees and expenses for test or examination as the minister may specify.

(6) If any measuring or weighing appliance shall upon any such test or examination as is mentioned in the last forgoing paragraph be found to be false or unjust the same shall if the Minister so determines after considering any representations in writing made by the Licensee be deemed to have existed in that condition during the period since the last occasion upon which the same was tested or examined pursuant to the last foregoing paragraph.

* Paragraphs (2) and (3) are not incorporated into licences which contain the model clauses in Schedule 6 to the Petroleum (Production)(Landward Areas) Regulations 1991.

Petroleum measurement is implied by obligations in the licence in addition to those contained in the measurement model clause. This is discussed below.

4 INTERPRETATION

A number of phrases in the measurement model clauses of the Petroleum (Production) Regulations do not have clearly defined legal meanings and so are open to interpretation. In order that oil companies, which are required to conduct their operations according to the provisions of these regulations, may have a framework within which they can lay plans and make decisions in the knowledge that their proposals are likely to meet with government approval, the DTI issues guidance notes which provide a framework for metering of petroleum without imposing over prescriptive requirements.

These guidelines, the current version (issue 5 September 1997) issued by the DTI Oil and Gas Office are:

“GUIDANCE NOTES FOR STANDARDS FOR PETROLEUM MEASUREMENT

Under the Petroleum (Production) Regulations”

These guidance notes are not prepared by the DTI in a vacuum but are the result of extensive consultation between the department and a number of organisations with a known interest and expertise in the subject. The principal industry representative bodies whose views are sought are, UKOOA, BRINDEX, and The Institute of Petroleum. While the views of industry and government may not always be exactly aligned every effort is made to include as many of the suggestions as possible.

4.1 Critical Words

The Licensee **shall** measure or weigh by a method or methods **customarily used** in good oilfield practice and from time to time **approved** by the Minister all petroleum won and saved from the licensed area.

I have emboldened some words in the first part of the measurement model clause to emphasise some important aspects.

4.1.1 Shall

“**shall**” is used. This signifies that there is no discretion here either for the licensee or for the minister. This means in practice that all oil and gas production measurement systems must be “approved” .

4.1.2 Customarily Used

The phrase “**customarily used**” would in some interpretations imply that no new technology is admissible. However it has never been the view in the DTI that this phrase was intended to inhibit innovation. One could argue that the oil and gas industry has a good track record developing innovative solutions and by inference that the search for and use of innovative solutions is oil industry custom and practice. However great care must be exercised in the selection and deployment of new technology to ensure that it is relevant to the proposed application.

4.1.3 Approved

The use of the word “**Approved**” sometimes gives rise to misunderstandings. In a situation where the pattern and construction of instruments frequently require official scrutiny and the issuance of a “type approval” document it is easy to assume that something similar is intended by the regulations. This is not so. It has always been the view that, as the approval is for a method of measurement rather than for specific instrument types or classes, “approved by the

minister" uses the lay meaning of the word in that the minister does not disapprove of the method of measurement. It is in this context that no formal approval has ever been given under the Petroleum (Production) Regulations. Letters of non-objection or of agreement are therefore considered more appropriate in signifying satisfaction with measurement proposals.

5 METHOD OF MEASUREMENT

Where petroleum is delivered to the UK via a pipeline which serves as a common transportation route for a number of fields then the "method of measurement" will include the measurement of petroleum at the terminal serving the relevant pipeline as well as the metering system at the input to the pipeline and the allocation procedures used to determine each contributing field's share of the petroleum used at or exported from the terminal.

A "method of measurement" comprises not only the metering hardware but also the operating procedures and procedures for periodic verification of the continued satisfactory performance of the individual components in a metering system.

Where the purpose of measurement is not for product accounting but is for example for reservoir management other methods will be appropriate. These methods traditionally use test separators to make intermittent measurements of the wells' flowing characteristics but may also involve continuous measurement using a variety of measurement techniques.

5.1 Supervisory Activity

In order to satisfy the Secretary of State that no unauthorised alterations to the approved method of measurement have been made, officers from the OGO may at their discretion inspect metering systems at any stage from construction through commissioning into production. Throughout the producing life of a field operators may expect that fields liable to pay Royalty or PRT or being co-produced or transported with such fields will routinely be inspected by officers of the OGO on an annual basis. Additional non-routine inspections may be required if circumstances warrant. Fields with no impact on Royalty or Petroleum Revenue Tax (PRT) are liable to be inspected on commissioning and thereafter at the discretion of the OGO on a less frequent basis than Royalty or PRT sensitive fields.

Officers from the OGO are authorised by the Secretary of State for Trade and Industry to "enter into and upon any land, installations or equipment" for the purposes laid down in the schedules to the Petroleum (production) Regulations.

5.2 Other Powers

The Petroleum (Production) Regulations provides for a number of powers to be included in the terms of a production licence. Most of these powers relate to the regulation of the development and production activity of licensees. Those powers which have relevance to petroleum measurement are annotated in the regulations as the :- "Power to execute works" and the "Power of revocation"

5.2.1 Power to execute works

This clause states, "If the licensee shall at any time fail to perform the obligations arising under the terms and conditions of any of clauses 14, 19, 22, 23, or 26 of this licence, the Minister shall be entitled, after giving to the Licensee reasonable notice in writing of such his intention, to execute any works and to provide and install any equipment which in the opinion of the Minister may be necessary to secure the performance of the said obligations or of any of them and to recover the costs and expenses of so doing from the Licensee."

These clause numberings are particular to the 1988 seaward regulations but in whichever set of regulations are relevant the clauses will be appropriately numbered. In the 1988 regulations clause 14 is the measurement model clause.

5.2.2 Power of revocation

This clause states, "If any of the events specified in the following paragraph shall occur then and in any such case the Minister may revoke this licence and thereupon the same and all the rights hereby granted shall cease and determine but subject nevertheless and without prejudice to any obligation or liability incurred by the Licensee or imposed upon him under the terms and conditions hereof." Among the events referred to in the foregoing paragraph is:-

"(b) any breach or non-observance by the Licensee of any of the terms and conditions of this licence;"

6 CONCLUSION

No mention of meters is made in the regulations. The closest the regulations come to the mention of "meters" is where they state that "any weighing or measuring **appliance** shall be tested or examined". This underlines the principle that the regulations should not be viewed as prescriptive but rather should enable decisions to be made on a sound engineering evaluation of what constitutes "good oilfield practice" on a case by case basis taking fully into account all relevant special circumstances, both technical and economic.

The Status of Fiscal Measurement Legislation in the UK and Norway.

Section B: S Fosse, NPD, Norway

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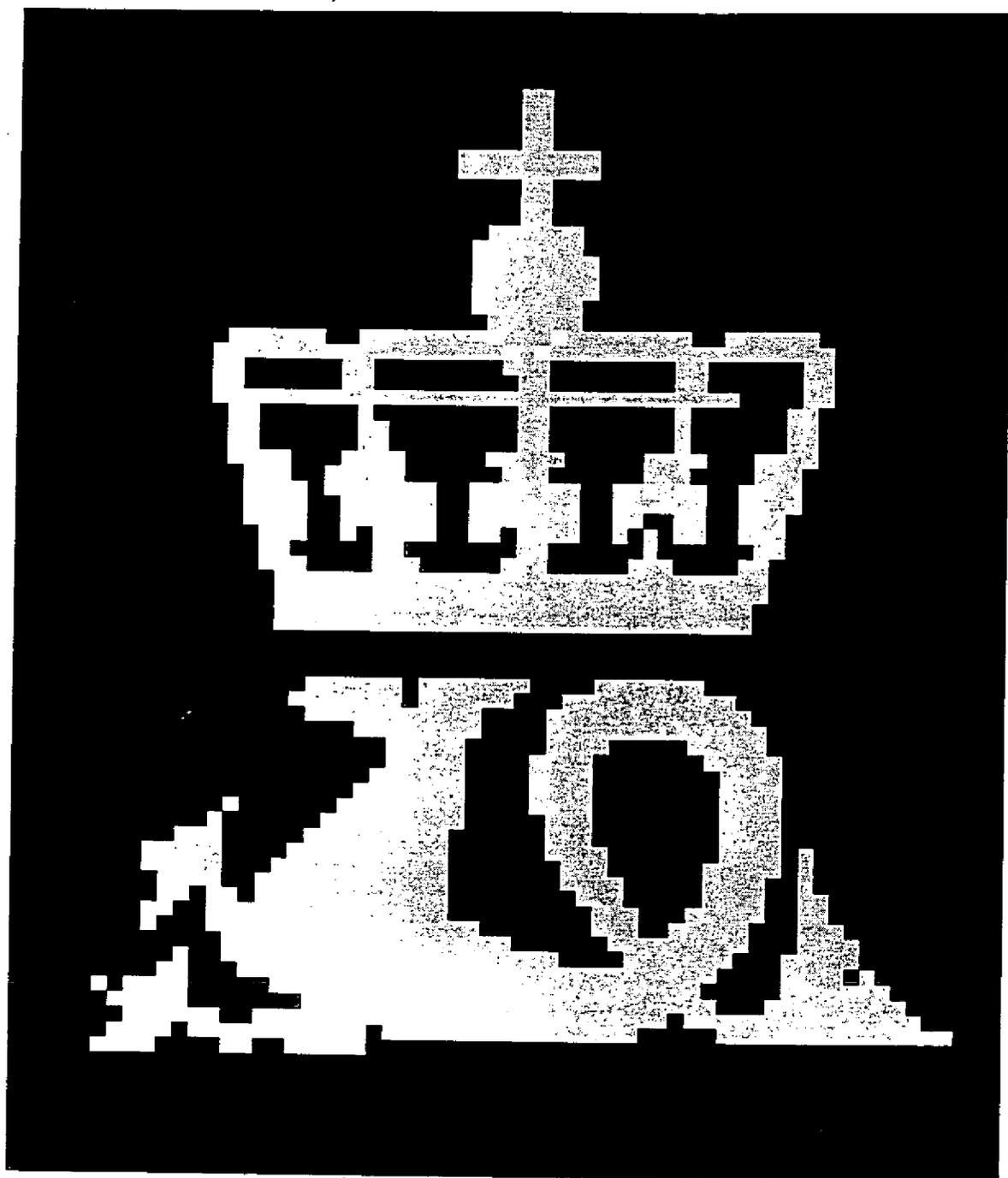
Gleneagles Hotel

- The status of Fiscal Measurement legislation in Norway

- Author:
Principal Engineer
Steinar Fosse

NSFMW-98

NPD regulatory status



Norwegian Petroleum Directorate

- 1984 First regulation related to fiscal measurement of oil and gas was issued
- 1991 A major update of the regulation took place
- After 1991 it has been three updates which has been done to make it more precise and to include new experience



Norwegian Petroleum Directorate

- The regulatory regime in NPD is flexible so that adjustments/changes can be implemented into the regulations every year. It is of course not the intention to do updates that frequent
- The updates have been done every second year



Norwegian Petroleum Directorate

- The update 1998 is mainly due to the fact that two new Norsok standards were issued 2.6.98. Fiscal measurement systems for hydrocarbon gas I-104, and Fiscal measurement systems for hydrocarbon liquid I-105.
- NPD reduces its guidelines to the regulations and instead refer to relevant sections in Norsok



References

[1] Paper presented at the North Sea Flow Measurement Workshop, a workshop arranged by NFOGM & TUV-NEL

Note that this reference was not part of the original paper, but has been added subsequently to make the paper searchable in Google Scholar.