EUB Alberta Energy and Utilities Board

INFORMATIONAL LETTER IL 85-10

TO: All Operators

MAXIMUM DAILY RATES OF PRODUCTION FOR GAS WELLS

This letter supersedes Informational Letter No. IL-OG 73-9 issued on 21 February 1973.

The purpose of this informational letter is to update the Board's policy respecting maximum daily production rates from gas wells in certain pools as described in Informational Letter No. IL-OG 73-9. Such allowables are set only where high production rates could adversely affect gas recovery and the operator has not voluntarily instituted an acceptable rate-control procedure. In fact, less than 1 per cent of producing gas wells have a maximum daily allowable.

The Board continues to believe that its current policy respecting the establishment of maximum daily production rates for gas wells and pools is satisfactory and that well licensees should be involved to a greater degree in establishing producing rates consistent with good production practices. The policies and procedures are as follows:

1. The maximum daily allowable will be set by Board GA Order for wells in a pool or a part of a pool where, in the opinion of the Board, the ultimate recovery of gas may be adversely affected by excessively high producing rates. The rates for wells in this category would be established after consultation with the operator either at meetings with the Board staff or at a public hearing. The rates would be redetermined annually unless the operator and the Board mutually agree to establish a maximum daily production rate for a different period.

2. Wells or pools where maximum daily allowable rates are not established by Board Order may be produced at rates consistent with good production practice. The Board expects the operator to exercise appropriate control of the producing rate to ensure that maximum ultimate recovery will be obtained from the pool and to continually observe the performance of his wells for potential water problems.

The Board considers its method of calculating the maximum daily production rate (Qmax) to be a good preliminary basis for estimating a production rate consistent with good production practice and believes that the operator may wish to use this means of establishing a maximum daily production rate in the absence of a more sophisticated estimate. The Qmax equation is described in subsection (1)(c) of section 10.300 of the Oil and Gas Conservation Regulations. A discussion of guidelines used by the Board in the selection of the drawdown factor "f" to be used in the equation is contained on Attachment 1 to this letter.

3. All new wells placed on production will be permitted to produce at rates consistent with good

production practice unless the initial flow test and knowledge of the pool indicate that water will likely be a problem, in which case the operator is required to advise the Board of his opinion of a safe producing rate. The Board, following consultation with the operator, may allow these wells to continue to produce in the good production practice category or may hold a meeting or hearing to consider whether production rates should be set by Board Order. The Board will also hold a meeting or hearing upon the request of an operator to review the performance and maximum producing rates for wells in a pool.

4. Upon the occurrence of significant water production from a well in a pool which has not previously produced water, or of significant changes in the water production rate from a well in a pool which is producing water, **the operator shall immediately advise** the Board of his opinion supported with appropriate evidence, respecting the maximum daily gas production rate that should be specified. A meeting or hearing may be held as in the case in item 3 above.

5. The Board will review monthly the performance of wells and pools in the good production practice category and, where the production characteristics of a well have shown a significant change, the operator will be requested to advise the Board of his opinion of the producing problems indicated and a safe producing rate. Again, the Board, after consultation with the operator, may hold a meeting or a hearing as in the case in item 3 above.

6. The present practice regarding off-target penalties for gas wells will be continued. That is, most off-target wells will have the penalty factor applied against a current Qmax rate, as calculated by the Board staff, or against the Board Order daily allowable.

Inquiries should be directed to the Board's Gas Department to the attention of the Supervisor, Pressure and Deliverability Section or the Assistant Manager.

<signed by>

V. E. Bohme
Board Member

ATTACHMENT 1 TO IL 85-10

Determination of Permissible Drawdown (f) in Connection with Daily Maximum Allowable (Qmax)

The derivation of the maximum daily allowable Qmax is shown in Board circulars dated 29 September 1954 and 31 May 1955. As stated in the circulars, "f", the fraction relating shut-in sand face pressure to flowing sand face pressure at the maximum permissible rate of flow, is to be set at a value reflecting the reservoir conditions.

The following is to be used as a guide in setting "f" values for individual pools:

(a) **Underlain completely by water**

Use

(i) 0.92 for thicknesses of less than 3 metres,
(ii) 0.90 for thicknesses of 3 - 6 metres,
(iii) 0.85 or less for thicknesses of 6 metres or greater.

(b) **Flank water present**

Use

(i) 0.90 for thicknesses of less than 3 metres,
(ii) 0.85 for thicknesses of 3 - 6 metres,
(iii) 0.80 or less for thicknesses of 6 metres or greater.

(c) **No water present**

There is no real limitation of "f" values but use of the range of 0.85 to 0.75 is recommended.

PERMEABILITY CONSIDERATIONS

The above ranges of "f" are for reservoirs of excellent permeability. In reservoirs of low permeability the drawdown, after sustained periods of production, will be much greater than initially and therefore a higher "f" should be set for a low permeability reservoir than for a high permeability reservoir when all other considerations are equal.

Permeability Range	**Decrease (1 - f)**
Excellent (above 500 mD)	0
Good (100 - 500 mD)	approx. 10%
Fair (25 - 100 mD)	approx. 20%
Poor (below 25 mD)	approx. 30%