

1 February 1995

**ITEM 11     RESOURCE CONSENT APPLICATION A1202**

Applicant     :     Macdonald Investments Ltd for Southgas Joint Venture  
Location     :     Ohai  
Purpose       :     The application is for discharge permits, as described below,  
                      associated with the extraction of methane gas from the Ohai coalfields.  
Received     :     24 January 1995  
Comment      :     Under delegated authority, and in accordance with Section 94(2) of the  
                      Resource Management Act 1991, this application has not been notified.

Introduction

Macdonald Investments Ltd have applied for four consents for its methane extraction proposal at two sites at Ohai. Each site requires discharge permits for the flaring of gas and for the discharge of production water to the Orauea Stream.

Full details of the applications and the process involved are provided in the report entitled "Southgas Coalbed Demethanation Project - Assessment of Environmental Effects" which is appended.

Resource consents are not required for taking water (water will be taken from the Ohai township system), or for the disposal of drilling fluids (permitted activity when disposed of to land).

The applicant has consulted widely. It has obtained the approval of the adjoining landowners, Southland Fish and Game Council, Department of Conservation, and the iwi, enabling the applications to be processed as non-notified as the effects of the activity will be minor.

General

The applicant's AEE gives a concise outline of the expected quality of the discharge and the likely impacts on the Orauea Stream. More detailed consideration is given to the primary contaminants in the discharge but it is limited by the flow data on the Orauea Stream. Only longer term, continuous monitoring can rectify this problem.

The assessment is conservative in its approach, although it is likely that the stream will drop below the design baseflow of 0.225 m<sup>3</sup>/s. However, flows will exceed this level most of the time. Appropriate monitoring conditions are recommended below to ensure adverse effects do not occur and to verify the information provided. This will entail more frequent monitoring in the first six months of operation i.e. monthly, reducing to quarterly sampling thereafter.

Provision is made for a review at the end of twelve months from the date the discharge commences, so that there is an opportunity to amend the condition if required.

The air discharge for the flaring of gas is also evaluated in the AEE. It is a very clean burning gas with carbon dioxide and water vapour being the main contaminant. Flaring will only occur for the first 6 months of operation while gas production is assessed.

Appropriate conditions have been recommended.

### Staff Recommendation

This recommendation is made pursuant to section 104 of the Resource Management Act 1991 and the matters to be considered therein.

While the use of natural gas is not consistent with Section 6.3 of the Proposed Regional Policy Statement, as it is not a renewable energy resource, it is not the specific subject of the applications. The discharges are relatively minor and conditions are imposed that limit the impact on the receiving environment.

Pursuant to section 105(1) of the Resource Management Act 1991 the following consents are granted to Macdonald Investments Ltd for the following:-

- i. To discharge a maximum of 18 m<sup>3</sup>/day of production water from the demethanation of coal at Site A (map reference D45:192:611) to the Orauea Stream at about map reference D45:192:608; and to discharge to the atmosphere the products of combustion from up to 25 500 m<sup>3</sup>/day of natural gas from Site A at about map reference D45:195:611;
- ii. To discharge a maximum of 18 m<sup>3</sup>/day of production water from the demethanation of coal at Site B (D45:189:613) to the Orauea Stream at about map reference D45:191:608; and to discharge to the atmosphere the products of combustion from up to 25 500 m<sup>3</sup>/day of natural gas from Site B at about map reference D45:189:613.

Each consent is granted subject to the following conditions:-

1. The consent is granted for a period of 5 years.
2. The Council shall assess the results of monitoring in accordance with the conditions of this consent, and any other relevant information, after 1 year of operation and thereafter at two yearly intervals on the anniversary of the date of the consent.

As a result of this assessment the Council may, in accordance with Section 128 of the Act, review the conditions of this consent.

3. The consent holder shall give the Regional Council 7 days notice of its intention to exercise this consent.
4.
  - (i) The consent holder shall pay to the Southland Regional Council an administration charge of \$50 plus GST (or other figure set by Special Order under the Act) in advance, payable on the first day of July each year.
  - (ii) The consent holder shall be audit monitored by the Regional Council, unless the Council act as its agent for monitoring. The extent and cost of such monitoring shall be fixed by agreement between the consent holder and the Council's Director of Planning and Resource Management.

Discharge to Water

5. The suspended solids concentration of the discharge shall not exceed 20 g/m<sup>3</sup>.
6. The minimum standards for Class D waters as required by the Council's Regional Plan apply in respect of the exercise of this permit beyond 50 metres from the point of discharge to the receiving waters. In particular, the following shall apply:-
- (i) the pH of the receiving waters shall be in the range 6-9;
  - (ii) the dissolved oxygen saturation shall not be less than 80%;
  - (iii) the clarity, as determined by black disc measurement, shall not be reduced by more than 20%;
  - (iv) the following concentrations shall not be exceeded:-
- |                                 |                        |
|---------------------------------|------------------------|
| dissolved chromium              | 10 mg/m <sup>3</sup>   |
| ammoniacal nitrogen             | 0.2 g/m <sup>3</sup>   |
| dissolved reactive phosphorous  | 0.025 g/m <sup>3</sup> |
| undissociated hydrogen sulphide | 2 mg/m <sup>3</sup>    |
7. (i) The consent holder shall sample the discharge for pH, conductivity, temperature, suspended solids, sulphide, dissolved chromium, ammoniacal nitrogen, total Kjeldahl nitrogen (TKN) and dissolved reactive phosphorous.
- (ii) The consent holder shall sample the receiving waters above and 50m below the point of discharge for pH, conductivity, temperature, sulphide, dissolved chromium, ammoniacal nitrogen, TKN, dissolved reactive phosphorous, and clarity (as a black disc measurement).
- (iii) Monitoring in accordance with conditions 7(i) and 7(ii) shall be at monthly intervals for the first six months that the discharge occurs and at 3 monthly intervals thereafter.
- (iv) The results of monitoring shall be forwarded to the Regional Council within 20 working days of sampling.
8. (i) The consent holder shall install, operate, and maintain a station, relevant to the point of discharge, and equipment for the measurement of flow in the Orauea Stream, and for the rate of discharge of effluent. The site shall be to the satisfaction of the Council's Director of Planning and Resource Management.
- (ii) The rate of discharge of effluent shall be recorded on a daily basis. The stream flow, rate of discharge and dilution available shall be reported for each day a sample is collected and reported in accordance with condition 7 (iv).

**Discharge to Air**

9. This consent permits the flaring of gas for the purpose of testing well production for the first six months of operation, from the date as notified in accordance with condition 3. Thereafter flaring will be for emergency and/or maintenance purposes only and condition 13 will apply accordingly.
10. The consent holder shall adopt the best practicable option to avoid or minimise any actual or potential effect on the environment arising from the flare emission, or any other emissions from the site.
11. No alteration shall be made to the plant or processes which may substantially adversely change the nature or quantity of contaminants emitted without the prior approval of the Council's Director of Planning and Resource Management.
12. The consent holder shall keep a record of all flaring including the date and time flaring commenced, the duration, and the reason for flaring the gas. The records shall be made available to Regional Council on request.
13. Where flaring is for emergency or maintenance purposes, the consent holder shall notify the Regional Council as soon as practicable but no later than 24 hours after flaring was commenced.

Consent processing time: 6 days

Consent processing cost: \$503.76 plus GST

### Item 11 - Resource Consent Application A1202

Attached to the Agenda was an application by Macdonald Investments Limited for Southgas Joint Venture, Ohai, for discharge permits associated with the extraction of methane gas from the Ohai coalfields. The application was received on 24 January 1995.

Appearing at the hearing were Mr R Macdonald, Macdonald Investments Ltd, and Mr R Hamilton, Duffill Watts & King, to answer any questions raised by the Committee.

Mr Engel advised that written agreement had been received from Southland Fish & Game Council, Department of Conservation, landowners and Iwi.

Chairman Mills questioned the visual impact of this structure and the buildings covering the structure. He emphasised that this consent was for the initial two structures.

Cr Riddell asked if Southgas had suitably qualified people to measure the flow of the stream. She asked what sort of contingency plan would be put in place if the stream fell below the critical base flow. Mr Macdonald stated that they employed consultants to make sure that every criteria was met.

It was felt that a further condition should be added to 8 to cover this.

#### Resolved:

**Moved Cr Riddell, seconded Chairperson Miller, that this recommendation be made pursuant to section 104 of the Resource Management Act 1991 and the matters to be considered therein.**

**While the use of natural gas is not consistent with Section 6.3 of the Proposed Regional Policy Statement, as it is not a renewable energy resource, it is not the specific subject of the applications. The discharges are relatively minor and conditions are imposed that limit the impact on the receiving environment.**

Pursuant to section 105(1) of the Resource Management Act 1991 the following consents are granted to Macdonald Investments Ltd for the following:-

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- ii. To discharge a maximum of 18 m<sup>3</sup>/day of production water from the demethanation of coal at Site B (D45:189:613) to the Orauea Stream at about map reference D45:191:608; and to discharge to the atmosphere the products of combustion from up to 25 500 m<sup>3</sup>/day of natural gas from Site B at about map reference D45:189:613.

Each consent is granted subject to the following conditions:-

1. The consent is granted for a period of 5 years.
2. The Council shall assess the results of monitoring in accordance with the conditions of this consent, and any other relevant information, after 1 year of operation and thereafter at two yearly intervals on the anniversary of the date of the consent.

As a result of this assessment the Council may, in accordance with Section 128 of the Act, review the conditions of this consent.

3. The consent holder shall give the Regional Council 7 days notice of its intention to exercise this consent.
4. (i) The consent holder shall pay to the Southland Regional Council an administration charge of \$50 plus GST (or other figure set by Special Order under the Act) in advance, payable on the first day of July each year.  
  
(ii) The consent holder shall be audit monitored by the Regional Council, unless the Council act as its agent for monitoring. The extent and cost of such monitoring shall be fixed by agreement between the consent holder and the Council's Director of Planning and Resource Management.

### Discharge to Water

5. The suspended soils concentration of the discharge shall not exceed 20 g/m<sup>3</sup>.
6. The minimum standards for Class D waters as required by the Council's Regional Plan apply in respect of the exercise of this permit beyond 50 metres from the point of discharge to the receiving waters. In particular, the following shall apply:-
  - (i) the pH of the receiving waters shall be in the range 6-9;
  - (ii) the dissolved oxygen saturation shall not be less than 80%;
  - (iii) the clarity, as determined by black disc measurement, shall not be reduced by more than 20%;
  - (iv) the following concentrations shall be not be exceeded:-
 

dissolved chromium	10 mg/m <sup>3</sup>
ammoniacal nitrogen	0.2 g/m <sup>3</sup>
dissolved reactive phosphorous	0.025 g/m <sup>3</sup>
undissociated hydrogen sulphide	2 mg/m <sup>3</sup>
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  - (ii) The consent holder shall sample the receiving waters above and 50m below the point of discharge for pH, conductivity, temperature, sulphide, dissolved chromium, ammoniacal nitrogen, TKN, dissolved reactive phosphorous, and clarity (as a black disc measurement).
  - (iii) Monitoring in accordance with conditions 7(i) and 7(ii) shall be at monthly intervals for the first six months that the discharge occurs and at 3 monthly intervals thereafter.
  - (iv) The results of monitoring shall be forwarded to the Regional Council within 20 working days of sampling.
8.
  - (i) The consent holder shall install, operate, and maintain a station, relevant to the point of discharge, and equipment for the measurement of flow in the

Orauea Stream, and for the rate of discharge of effluent. The site shall be to the satisfaction of the Council's Director of Planning and Resource Management.

- (ii) The rate of discharge of effluent shall be recorded on a daily basis. The stream flow, rate of discharge and dilution available shall be reported for each day a sample is collected and reported in accordance with condition 7 (iv).
- (iii) By 30 April 1995, the consent holder shall provide the Regional Council with a contingency plan detailing actions to be taken in the event that flows in the Orauea Stream are such that the limits set in condition 6 cannot be maintained.

#### Discharge to Air

- 9. This consent permits the flaring of gas for the purpose of testing well production for the first six months of operation, from the date as notified in accordance with condition 3. Thereafter flaring will be for emergency and/or maintenance purposes only and condition 13 will apply accordingly.
- 10. The consent holder shall adopt the best practicable option to avoid or minimise any actual or potential effect on the environment arising from the flare emission, or any other emissions from the site.
- 11. No alteration shall be made to the plant or processes which may substantially adversely change the nature or quantity of contaminants emitted without the prior approval of the Council's Director of Planning and Resource Management.
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- 13. Where flaring is for emergency or maintenance purposes, the consent holder shall notify the Regional Council as soon as practicable but no later than 24 hours after flaring was commenced.

Consent processing time: 6 days  
Consent processing cost: \$503.76 plus GST

Carried