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# M E M O R A N D U M

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**DATE:** 12 April 2000  
**TO:** Each Board Member  
**FROM:** Technical Review Committee  
**RE:** Objections on the Proposed Determinations for the applications made by  
Bord Na Móna Energy Limited (Boora Group), Reg. No. 500.  
Bord Na Móna Energy Limited (Derrygreenagh Group), Reg. No.501  
Bord Na Móna Energy Limited (Blackwater Group), Reg. No. 502  
Bord Na Móna Allen Peat (Allen Group), Reg. No. 503.  
Bord Na Móna Energy Limited (Mountdillon Group), Reg. No. 504  
Bord Na Móna Energy Limited (Kilberry Group), Reg. No. 506.

Application Details	
Applicant:	Bord Na Móna Energy Limited (Boora Group),
Reg. No.:	500
Class of activity:	1.4 – The extraction of peat in the course of business which involves an area exceeding 50 hectares
Proposed Determination issued on:	8/12/99
Objection by the Applicant:	30/12/99

Application Details	
Applicant:	Bord Na Móna Energy Limited (Derrygreenagh Group)
Reg. No.:	501
Class of activity:	1.4 – The extraction of peat in the course of business which involves an area exceeding 50 hectares
Proposed Determination issued on:	1/12/99
Objection by the Applicant:	23/12/99

Application Details	
Applicant:	Bord Na Móna Energy Limited (Blackwater Group)
Reg. No.:	502
Class of activity:	1.4 – The extraction of peat in the course of business which involves an area exceeding 50 hectares
Proposed Determination issued on:	2/12/99
Objection by the Applicant:	23/12/99

Application Details	
Applicant:	Bord Na Móna Allen Peat (Allen Group)
Reg. No.:	503
Class of activity:	1.4 – The extraction of peat in the course of business which involves an area exceeding 50 hectares
Proposed Determination issued on:	2/12/99
Objection by the Applicant:	23/12/99

Application Details	
Applicant:	Bord Na Móna Energy Limited (Mountdillon Group)
Reg. No.:	504
Class of activity:	1.4 – The extraction of peat in the course of business which involves an area exceeding 50 hectares
Proposed Determination issued on:	8/12/99
Objection by the Applicant:	24/12/99

Application Details	
Applicant:	Bord Na Móna Energy Limited (Kilberry Group)
Reg. No.:	506
Class of activity:	1.4 – The extraction of peat in the course of business which involves an area exceeding 50 hectares
Proposed Determination issued on:	1/12/99
Objection by the Applicant:	30/12/99

### Consideration of the Objection

The Technical Review Committee (Dr. Vera Power, Mr. Ger Kelly, Ms. Elisabeth Nagel) has considered all the issues raised in the objection for each application. No third-party objections were received by the Agency. This report details the Committee's comments and recommendations following the examination of the objections and discussion at a meeting on 11 April 2000. Inspectors for the activity, Mr. Liam O'Súilleabháin, Mr Marc Kierans, Dr. Jonathan Derham also provided comments on points raised in the objection.

This memo is a combined response to the objections as the Applicant objections received with respect to all the sites are identical. Recommendations relate to amendment of the Proposed Determination for Reg. Nos. 500, 501, 502, 503, 504, 506 except where stated otherwise (see objection to Condition 9.1.7).

### Objection 1

#### Condition 2.2: Environmental Management Programme

*With respect to Condition 2.2.2, the Applicant suggested that the word 'consider' should be replaced with the word 'include' to reflect the possibility that some items to be included in the Environmental Management Programme (EMP) may prove to be impractical, and would not therefore be included in the programme of objectives & targets.*

The purpose of the EMP is to provide for continuous improvement of environmental performance. While some of the items listed may be considered unfeasible at the present time, inclusion in the EMP provides for periodic review and re-evaluation. Implementation of the schedule of objectives of targets does not necessarily include a programme of works.

#### Recommendation:

No change.

## **Objection 2**

### **Condition 2.6.1**

*The Applicant points to the fact that the activity may be operational on a 24 hour basis during suitable weather conditions, and argues that that it is impractical to require a person responsible for environmental matters to be on-site at all times.*

Responsibility for environmental matters may be assigned to any individual on-site. It is imperative that a person in charge is available to deal with environmental issues which may arise while the activity is carried on. It does not prescribe that the same person be in charge on a 24hour basis. Where shifts are involved each shift should have a designated person in charge or if necessary a person can be nominated to deputise for the person who has primary responsibility.

#### **Recommendation:**

No change.

## **Objection 3**

### **Condition 3.2.1**

*This condition requires that no individual daily result of 24 hour flow proportionate sampling of SS in surface water run-off from bogs should exceed 1.5 times the emission limit value (ELV). The Applicant requests that this be increased to twice the ELV given the influence of rainfall on the solids load discharged.*

Adequate justification has not been provided for an increase in interpretation. No flow proportional sampling has been carried out to date.

#### **Recommendation:**

No change

## **Objection 4**

### **Condition 5.5**

*The Applicant suggests that the fourth item ('headlands are kept clean and free of loose peat') should be re-worded to read 'free of excessive loose peat'.*

Such amendment is considered reasonable, as deposition of some loose peat on the headlands is unavoidable (subject to the requirements of Condition 5.4).

#### **Recommendation:**

Amend Condition 5.5, item four as follows – headlands are kept clean and free of <u>excessive</u> loose peat
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## **Objection 5**

### **Condition 6.2**

*The Applicant requests extension in time for submission of a surface water discharge proposal from three months to six months.*

It is considered that this monitoring programme should be commenced as a soon as practical. In particular, the programme should include monitoring of emissions during the forthcoming harvesting season. This has direct impact on the subsequent de-silting programme required by Condition 6.7. It is also considered that much of the preparatory work required has been carried out as part of the application process. In addition the Applicant has not given specific justification for the requested time delay.

**Recommendation:**

No change.

**Objection 6**

**Condition 6.7**

*The Applicant requests an extension in time (from three months to six months) for preparation of an operational procedure for desludging of the silt ponds.*

Condition 6.7 requires that a procedure be put in place for de-silting of the silt ponds. The Condition provides for review of the subsequent inspection programme within twelve months to verify its operational efficiency. The potential for silt loss to surface waters is the main environmental issue associated with peat harvesting.

**Recommendation:**

No change.

**Objection 7**

**Condition 6.8**

*The Applicant states that it is impractical to stipulate that de-silting be carried out before ditching harvesting and points to the fact that an 'as required' rotational desilting programme is currently in operation. It is the Applicants stated view that it is sufficient to stipulate that silt ponds are cleaned a minimum of twice per year and that the wording 'once before ditching and harvesting' should be removed from this condition.*

Disturbance of peat and associated run-off of solids occurs primarily during ditching and harvesting operations. It is imperative to ensure satisfactory performance of the silt ponds before these activities are carried out.

**Recommendation:**

No change.

**Objection 8**

**Conditions 6.9 and 6.10**

*The Applicant states that upgrading of all existing silt ponds to specified standards is a time consuming and expensive task. The Applicant intends to commence immediately but states that it is impractical to complete the work in three years. The Applicant proposes to implement a phased programme of work over a defined time*

*period. Information on progress will be submitted to the Agency annually as part of the EMP. It is requested that the three-year timeframe be extended to five years to reflect the demanding nature of the proposed programme.*

Condition 6.2 provides some clarification with regard to the current status of bogland (virgin, under development, operational or worked out). It should be noted that the three year time frame refers to existing ponds serving operational bogs only. It is not clear whether the Applicant appreciates this point. The Applicant is not required to implement the agreed upgrade programme in full within three years but upgrade existing ponds serving operational bogs to specified standards.

A typographical error is apparent for Condition 6.10.

**Recommendation:**

Amend Condition 6.10 as follows

Within three years of date of grant of this licence all existing silt ponds serving operational bogs shall achieve the following minimum performance criteria (flood periods excepted):

- Maximum flow velocity < 10 cms<sup>-1</sup>
- Silt design capacity of lagoons, minimum 50m<sup>3</sup> per nett ha of bog serviced

All new ponds installed shall be designed to achieve these stated minimum design criteria.

**Objection 9**

**Condition 6.12**

*The Applicant proposes an amendment to the wording of a number of the procedures listed in this condition. According to the Applicant:*

*Item 1 should be amended to read ‘...and maintained to exclude excessive peat’;*

*Item 3 should be amended to read ‘...free of excessive peat’;*

*Item 6 should be amended to read ‘...piping is minimised’;*

*Item 7 should be amended to read ‘...with downstream end (and) controlled’;*

*Item 8 should be amended to read ‘...in suitable weather (avoid periods of heavy rainfall)’;*

*Item 9 is impractical and should be removed altogether;*

*Item 10 should be amended to read ‘outlets from stockpile field drains...’;*

*Item 11 should remove (sic) the word ‘immediately’ as this is impractical and not environmentally friendly, i.e. after periods of heavy rainfall it may be more harmful than not if the peat within the stockpile drains are cleaned before run-off has subsided;*

*Item 14 should be amended to read ‘...cleared of milled peat or recompactd at the end of the production season.’*

*Finally, the Applicant considers that the timeframe for compliance should be extended from six months to nine months.*

The procedures requested reflect information submitted by Bord na Mona in the IPC application. However the Technical Review Committee feels that some confusion

exists with the Condition as currently written. It is considered that a nine month time frame is appropriate for development and implementation of the procedures.

**Recommendation:**

Amend Condition 6.12 as follows (for clarity strikethrough indicates deletion, underline indicates insertion):

In respect of silt control the licensee shall, within nine months of date of grant of this licence, prepare and implement procedures to ensure that:

- i. drainage manholes are protected and maintained free of excessive peat,
- ii. ~~harrows, millers, ridgers do not drag loose peat onto manholes or into drains,~~
- iii. headlands are kept clean and free of excessive loose peat,
- iv. all new manholes and outfalls are set well back from turning grounds, drivers of bog plant do not turn short (over drains) at headlands,
- v. harrows, millers, ridgers do not drag loose peat onto manholes or into drains, outside harrow spoons are directed away from drains,
- vi. silt run-off, while piping or ditching, is ~~prevented~~ minimised,
- vii. outfalls are ~~cleaned from the upstream direction with downstream end dammed~~ controlled to minimise silt discharge during cleaning operations,
- viii. drains are ditched in dry weather
- ix. while ditching, outfalls are blocked and ditch towards outfall,
- x. outlets from stockpile field drains are blocked during stockpile loading,
- xi. field drains adjacent to stockpiles are cleaned ~~immediately~~ as soon as practicable after stockpile loading,
- xii. adequate room is allowed for rail bed beside Peco stockpiles,
- xiii. all fields that have been milled are ridged at the end of the production season,
- xiv. all fields liable to winter flooding have been cleared of milled peat or re-compacted at the end of the production season,
- xv. ~~all new manholes and outfalls are set well back from turning grounds,~~
- xvi. ~~pond outlets are sealed off during cleaning.~~

**Objection 10**

**Condition 7.4**

*The Applicant wishes an extension in time from six to nine months for submission of a proposal for identification and management of ash and screenings disposal sites.*

Having regard to low environmental significance, the Applicant's request is supported.

**Recommendation:**

Amend Condition 7.4 as follows:

Within nine months of the date of grant of licence, the licensee shall submit to the Agency for agreement, a proposal for identification and management of all ash and screening disposal areas. Once agreed, the proposal shall be implemented within a time-scale stipulated by the Agency.

## **Objection 11**

### **Condition 9.1.7**

*The Applicant wishes an extension in time from six months to twelve months for the provision of designated loading/unloading areas protected against spillage and run-off.*

Having regard to low environmental significance, the Applicant's request is supported.

(It should be noted that despite the Applicant objection, Condition 9.1.7 of the Proposed Determination for Reg. No. 502 has already a time period for implementation of twelve months.)

#### **Recommendation:**

Amend Condition 9.1.7 of the Proposed Determination for Reg. Nos. 500, 501, 503, 504, 506 as follows:

Within twelve months of the date of grant of licence, the loading and unloading of fuel oils shall be carried out in designated areas protected against spillage and leachate run-off. While awaiting disposal, all materials shall be collected and stored in designated areas protected against spillage and leachate run-off.

## **Objection 12**

### **Condition 11.3**

*The Applicant states that it is impractical to require that the samplers are functioning at all times. The Applicant suggested that the wording of this condition should be amended to read ‘.functionable (sic) at all times.’ considering that the composite samplers operate on battery and sampling stations are remote.*

It should be noted that the Applicant is required to carry out composite sampling at one selected discharge point only and the required equipment may be installed to work automatically for a selected period between changing of bottles. Discharge takes place more or less continuously at varying rates (heavily influenced by rainfall). In order to obtain a representative sample of this discharge it is imperative that the sampler is functioning at all times

#### **Recommendation:**

No change.

## **Objection 13**

### **Schedule 1(i) (with reference to Condition 6.1)**

*As referred to previously, the Applicant proposes to upgrade the network of silt ponds over a defined period of time. It is envisaged that continuous improvement in performance will be demonstrated as the work progresses. However, it is argued that the Suspended Solids ELV is currently not realistic, though achievable over time. The Applicant contends that until the upgrade programme is complete, the ELV will not be generally achievable. It is proposed that phased decrease in ELV be*

conditioned in the licence in conjunction with the upgrade programme outlined above. The phased limit suggested by the Applicant is as follows:

Year	1	2	3	4	5
Suspended Solids (mg/l)	65	60	50	50	35

The Applicant states that upgrading must be dealt with sequentially, and, therefore, a phased reduction in the ELV is more appropriate. The Applicant argues that it is not presently possible to ensure consistent compliance with the proposed limit, particularly during wetter weather condition, and therefore it is unacceptable.

According to information submitted in the licence application, the discharge from the silt ponds, when properly maintained, for operational bogs is less than 30mg/l and 100 mg/l for 80% and 98% of the time respectively. Condition 3.2.1 (ii) of the licence stipulates that 75% of grab samples for each monitored discharge shall not exceed the ELV, and no individual grab sample shall exceed 3 times the emission limit value (i.e. 105mg/l). It follows therefore that the Applicant is in a position to comply with the ELV provided the ponds are properly maintained. Should test results indicate exceedance of the limit value then the Applicant may desludge the pond serving the discharge point in question to ensure compliance. Monitoring results submitted indicate correlation between timing of desludging and the solids content of the run-off. As stated previously, a compliant grab sample result may have a suspended solids content as high as 105mg/l hence the PD provides for periods of elevated levels of emissions due to heavy rainfall.

It is considered that effective and regular desludging is the key to reducing the suspended solids concentration in surface water run-off. It is imperative that the retention time in the ponds is such that significant settling out of solids from suspension occurs (i.e. horizontal flow velocity of  $\leq 0.10$  m/s). Currently ponds appear to be designed to provide sufficient storage based on the desludging being carried out twice per annum. As ponds fill storage and retention time is reduced. Where the treatment arrangement is inadequate (e.g. undersized pond) and/or when the probability of excessive levels of solids discharge is high (e.g. late and early production season), then more frequent desludging as necessary should be carried out until such time as the required upgrade works are completed.

**Recommendation:**

No change.

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Vera Power

Chair, Technical Review Committee