



APPENDIX 5-1

BNM FIRE PREVENTION & FIRE FIGHTING PROCEDURES FOR PEAT PRODUCTION BOGS



BORD NA MÓNA 

Feedstock Operations

Fire Prevention & Fire Fighting Procedures for Peat Production Bogs



Fire Prevention & Fire Fighting Policy **for Production Bogs**

The main focus of Bord na Mona in the prevention and management of bog fires is the safeguarding of members of the public, employees and property external to and within the ownership of the company. In addition, management recognise any legal obligations placed upon them relating to fire safety.

Management are therefore committed to the implementation and maintenance of systems to ensure, in so far as is practicable, the prevention of bog fires, and in the event of a fire occurring, the management and control of such fires so as to protect the safety and health of persons who may be affected.

The Feedstock management team will act as the fire committee for the Feedstock Business Unit and will hold two meetings per year. The function of the committee is to discuss and deliberate on all matters relating to fire prevention and fire fighting within the business unit.

Management will ensure the provision of adequate and appropriate resources to implement and maintain the fire plan including: Personnel; Training; Equipment; PPE and Communications.

Additional welfare facilities will be provided in the event of significant fires.

Communication channels with relevant emergency services will be established and maintained and appropriate maps provided.

Fire prevention and fire fighting will take precedence over all other operations.

All significant fires will be reported to the business unit manager in addition to health and safety and environmental personnel.

Management will ensure that the appropriate fire warning signs are in place and maintained as necessary.

All areas will be provided with maps and aerial photographs.

This policy will be communicated to all appropriate personnel and will be included in relevant training programmes.



Head of Feedstock Operations

Fire Protection Priorities

Feedstock management acknowledges that in undertaking activities to prevent and fight fire, priority will be placed as follows:

- o Protection and safety of employees and members of the public
- o Protection of external property
- o Protection of Bord Na Mona property.
- o Protection of Habitats and Biodiversity.



Fire Sources

There are two recognised sources of fire on bogs;
External and Internal

External Sources

- Burning of gorse / heather / brush
 - Cigarettes and matches
- Trespass of quad bikes and motorbikes

Internal Sources

- Heating Peat
- Machinery
- Cigarettes and Matches
- Hot work - Production areas and Rail Lines



Fire Prevention Plans

Externally Sourced Fires

The following measures are implemented to endeavour to prevent fires on Bord Na Mona bogs which may be caused by external sources:

- o An annual campaign to promote public awareness regarding bog fires.
- o Liaison with local land owners and fire services to prevent fires / burning on properties adjacent to Bord Na Mona Land.
- o Ensure fire warning and trespassing signage present in high risk locations.
- o Appropriate control of public access.
- o All employees to maintain vigilance at boundaries during periods of high fire risk.

Internally Sourced Fires

The following measures are implemented to endeavour to prevent fires on Bord Na Mona bogs which may be caused by internal sources:

- o All employees to maintain vigilance on bog areas at all times, but particularly during production season and during high fire risk periods.
- o Fire prevention and awareness training to be provided to all employees as part of induction training. Refresher training provided periodically. Specific fire training provided to all relevant employees.
- o Machines must be inspected and washed / blown down on a daily basis.
- o Peat Piles prone to heating must be closely monitored.
- o Smoking is restricted to designated areas and is prohibited in machines and on bog areas.
- o In order to minimise the risk of fire, peat sales plans should take account of piles prone to heating.
- o Areas must be left safe from the threat of fire following hot work carried out on bog or on rail lines.
- o Fire watch will be carried out (minimum period of one hour) by members of production team at the end of each production day.
- o Fire patrols will be organised by local management / operations leaders during periods of high fire risk.
- o Production operations will be suspended as necessary during periods of high fire risk.

Fire Fighting Plans

External Fires

In the event of fires on non Bord Na Mona property which may be threatening Bord Na Mona property, the following actions will be taken:

- o The relevant operations leader will contact the land owner / occupier where possible as well as the fire service.
- o Bord Na Mona employees may need to access the external property in order to deal with the fire. Permission can be granted by the land owner / occupier or the fire service.

Control and Management of Bog Fires

Resource managers will designate control persons for fire fighting.

Their responsibilities will include:

- o Management of persons (including members of the public) entering and leaving sites under control.
- o Co-ordination of persons on sites under their control.
- o Liaison with Fire and other emergency services as necessary.
- o Organisation of welfare facilities.
- o Resource managers will establish and maintain frequent contact with relevant external organisations and local fire services.

Each Bog Area operation leader / team leader / supervisor must ensure the following:

- o Fire fighting machinery is available and ready for use if required.
- o Minimum of one fire roller unit (Tractor with attached roller) is available and ready for use in each area.
- o Lights are working on all machines.
- o Flashing beacons are ready, and are placed on all relevant machines during fire fighting activities.
- o All machines have appropriate numbers of fire extinguishers.
- o Fire extinguishers checked daily and a reserve number are kept.
- o All tractors have fire buckets and shovels, and all dozers have a fire bucket.
- o Water sources on or adjacent to bog are appropriate, maintained and available for use during fire fighting.
- o Fire signs are in place and maintained.
- o Maps and aerial photographs provided to areas are in place and maintained.

Emergency contact numbers for each area in place

Fire Fighting Measures for Bog Fires

Fire fighting measures used for bog fires are as follows :

Small Fires

Extinguished immediately using fire shovel and bucket, and fire beaters if available.

Large Fires

Larger fires are managed using a combination of the following:

- Ditching piles and fields.
- Dozing piles and fields.
- Deep milling fields.
- Use of water to wash down machines and dampen fringe areas.



The Use of Water on Peat Bog fires is largely ineffective and can actually contribute to the spread of such fires.

Equipment available for deployment in event of fire.

Available Equipment:

- Dozer
- Ditcher
- Digger / Excavator
- Screw Leveller
- Peat Miller
- Water Tanker
- Fire Roller unit
- Fire buckets and shovels
- Fire Pumps, hoses and ancillary equipment
- Fire beaters
- Flashing beacons
- First aid kit and stretcher
- Stock of additional fire extinguishers
- Towing chains and slings
- PPE



Training

Fire Safety awareness is provided as part of Bord Na Mona's general safety induction with refresher training occurring every three years.

Training in relation to fire safety awareness, fire prevention and fire fighting is provided to all relevant personnel.

Fire Safety Training includes the following:

- o General Fire safety awareness and fire detection / prevention.
- o Use of fire extinguishers.
- o Use of machinery in fire fighting.
- o Use of pumps, floatation pumps and fire rollers.
- o Fire prevention for machinery, including washing and blowing down.
- o Use and maintenance of PPE used in fire fighting.
- o Dealing with small fires.
- o General Health and Safety, including Hazard Identification and Risk Assessment.

Recommended Procedure to Minimize Fire Hazards on Machinery

General

- Machinery to be parked in a manner that allows them to be moved in an emergency.
- Machinery to be parked a reasonable distance apart from each other to avoid the risk of a fire spreading to adjacent machines.
- For driver occupied machinery, ensure the cab is kept clean and tidy.
- Smoking is prohibited both within all machinery and bog areas, smoking is permitted in designated areas only.
- All machines to be washed down following: a fire, replacement of a hydraulic pipe, oil leak, build up of peat, after exposure to the use of cutting and welding equipment.



Tractors

- Use correct procedure for shutting down engine to reduce temperature and prevent fires.
- Twice daily (or as often as is necessary) using compressed air remove peat from :-
 - o Radiators, oil cooler grill and surrounding areas.
 - o Around the engine, manifold, injectors, diesel tank and filler cap.
 - o Around top of the transmission underneath the cab.
 - o Behind instrument panel.
 - o Around battery.
 - o Over back axles.
- Fire bucket and shovel, one or two fire extinguishers depending on tractor size are carried on suitable external brackets, fully charged and in working order.

Recommended Procedure to Minimize Fire Hazards on Machinery

Harvesters

- Inspect Harvester after each shift for accumulation of dry peat and friction hot spots, Remove dry peat where assessable. :-
 - o Inspect tracks for accumulations of peat.
 - o Inspect conveyor belts and belt rollers, for hot spots from seized rollers and misaligned belts.
 - o Inspect support frame for accumulations of peat.



Excavators

- Remove excavator from pile and park at a safe distance.
- Use correct procedure for shutting down engine to reduce temperature and prevent fires.
- Inspect excavator after shutting down :-
 - o Lift engine hood, checking exhaust system, manifolds, turbocharger, and engine hot spots for residue of dry peat. Remove dry peat with brush where assessable.
 - o Inspect radiators and oil cooler for peat clogging.
 - o Inspect around slewing motor / gearbox and hydraulic pumps.
 - o Inspect around tracks and rollers.

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Recommended Procedure to Minimize Fire Hazards on Machinery

Rail Layer and Dozers

- Use correct procedure for shutting down engine to reduce temperature and prevent fires.
- Inspect Machine after shutting down:-
 - o Open engine doors, checking exhaust system, manifolds, turbocharger, and engine hot spots for residue of dry peat.
 - o Inspect radiators and oil cooler for peat clogging.
 - o Check for peat build up under engine.
 - o Inspect around hydraulic pumps and related components.
 - o Inspect around tracks and rollers.



Locomotives

- Use correct procedure for shutting down engine to reduce temperature and prevent fires.
- Inspect Locomotive after shutting down :-
 - o Check exhaust system, manifolds, and engine hot spots for residue of dry peat. Remove dry peat with brush where assessable.

Other Production Area Machinery

- At the each of each shift and following activities that can increase the risk of fire, clean accumulations of peat and thoroughly wash down machine.

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Deployment of Fire Extinguishers

Location	Machine Type	Extinguisher		
		Size.	No.	Type.
Machines	Tractors up to 100 HP	4.5 Kg	1	ABC Dry Powder or Foam
	Tractors over 100 HP	4.5 Kg	2	ABC Dry Powder or Foam
	Bulldozers	4.5 Kg	1	ABC Dry Powder or foam
	Excavators	4.5 Kg	2	ABC Dry Powder or Foam
	Locomotives	4.5 Kg	1	ABC Dry Powder or Foam
	Road vehicles, forklifts, loading shovels.	1.5 Kg	1	ABC Dry Powder
Tea Centres	General Electrical equipment	4.5 Kg	1	ABC Dry Powder
			1	Fire blanket
		2.5 Kg	1	CO2

**Ensure that Used or Partially Used Fire Extinguishers are
IMMEDIATELY Returned for Re-Filling / Replacement.**

KNOW YOUR FIRE EXTINGUISHER COLOUR CODE

Classification of Fire Risk ↓	Cylinder Colour Coding and Contents				
	WATER	FOAM	CO ₂ CARBON DIOXIDE	DRY POWDER	VAPORISING LIQUIDS
					
	Unsafe all voltages Wood, Paper Textiles etc.	Unsafe all voltages Flammable liquids	Safe all voltages Flammable liquids	Safe all voltages Flammable liquids	Safe all voltages Flammable liquids
A Paper, Wood, Textile and Fabric	✓	✓		✓	✓
B Flammable Liquids		✓	✓	✓	✓
C Flammable Gases			✓	✓	✓
 Electrical Hazards			✓	✓	✓
 Vehicle Protection		✓		✓	✓
COLOUR CODING IN ACCORDANCE WITH BS EN3:2009 - PORTABLE FIRE EXTINGUISHERS FLAMMABLE GAS FIRES MUST BE EXTINGUISHED BY THE EMERGENCY SERVICES ONLY					

