



**OFFICE OF
LICENSING &
GUIDANCE**

**REPORT OF THE TECHNICAL COMMITTEE ON
OBJECTIONS TO LICENCE CONDITIONS**

TO:	Directors	
FROM:	Technical Committee	- LICENSING UNIT
DATE:	8 th May 2006.	
RE:	Objection to Proposed Determination for Finsa Forest Products Limited, IPPC Reg: 672	

Application Details	
Class(s) of activity:	8.1 The production of paper pulp, paper or board (including fibre-board, particle board and plywood) with a production capacity exceeding 20 tonnes per day. 5.9 The chemical manufacture of glues, bonding agents and adhesives, not included in paragraphs 5.12 to 5.17. 11.1 The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required.
Location of activity:	Scariff, County Clare
Section 87(1)(b) information received:	09/12/03, 10/12/03
PD issued:	25/01/06
First party objection received:	20/02/06
Third Party Objection received	21/02/06
Submissions on Objections received:	None

Company

This installation manufactures particleboard at a production capacity exceeding 20 tonnes per day. The installation also manufactures urea formaldehyde resins and melamine urea formaldehyde resins which are utilised on-site in particleboard production processes. It has a number of value added production lines. An inert landfill located on-site accepts only waste ash and fly ash (classified as inert) from the on-site hot gas generator.

Infrastructure on-site includes, a timber yard storage area, a hot gas generator (25MW), a dryer, a continuous press, a glue plant and an inert landfill.

FFP sought a review of their licence to extend the timeframe by which they have to comply with Emission Limit Values for particulates from the drier (EP1) that came into effect on 1st January 2000. The PD requires the installation of a wet electrostatic precipitator (WESP) abatement system by January 2007. Details of this abatement system are provided as part of the information submitted in the review application.

The company also propose to increase plant capacity by approximately 60% by either replacing the existing drier or adding a second drier.

Consideration of the Objection

The Technical Committee, comprising of Seán O Donoghue (Chair) and Maeve McHugh, has considered all of the issues raised in the Objections and this report details the Committee's comments and recommendations following the examination of the objections together with discussions with inspectors Anne Marie Donlon and Derval Devaney, who also provided comments on the points raised.

This report considers the third party objection and the first party objection.

First Party Objection

The applicant makes 11 points of objection and also suggests three corrections, all of which are detailed below.

A.1. Condition 8.8 and Schedules A1 and A3

The applicant objects to the condition and schedules as they prohibit the use of construction and demolition (C & D) waste timber as a fuel or raw material. The company have been using recycled timber as a raw material since 1995 and have invested significantly in cleaning and segregation equipment. Recycling activities have grown in the intervening years leading to significant diversion of such wastes from landfill. The company currently use 35,000 tonnes of recycled timber per annum, which is vital to the economic survival of the company. The applicant also outlined some of the knock-on economic and environmental benefits of the use of recycled timber, as follows: Recycled timber is cheaper than virgin timber; there are large reductions in energy costs and greenhouse gas emissions, and higher dryer capacity, due to moisture levels being significantly lower than that of virgin timber. The applicant points out that there is a decreasing availability of sawmill residues due to CHP plants and wood pellet manufacture. The company have also established an efficient transport system whereby hauliers deliver FFP products and return with recycled timber.

The company also objects to the prohibition of use of MDF as a raw material, stating that it is a clean material made from the same raw materials as particleboard and poses no increased environmental risks. The company use MDF as a raw material in their value added lines.

The applicant also states that: 70% of recycled timber used on site is of C & D waste origin, and the vast majority of this is not contaminated with halogenated organic compounds or heavy metals, and therefore does not come within the scope of the Waste Incineration Directive; that no such prohibitions apply to other particle board producers in the EU (in particular the UK, who are direct competitors); and that the costs of this prohibition as outlined above amount to €790,000 annually.

The applicant proposes to put in place procedures to ensure that C & D waste contaminated with halogenated organics or heavy metals is not brought on site. These procedures would address education, monitoring and auditing of suppliers, modification of purchasing specifications, visual inspection and chemical testing of incoming loads of recycled timber, product testing in accordance with European Panel Federation (EPF) procedures, and the training of purchasing and production staff. It is also stated that previous testing of products for metals found no significant differences between virgin timber, final product, process dust and MDF.

Submission(s) on Objection: None.

Technical Committee's Evaluation: Construction & Demolition (C &D) waste wood was excluded from use as a fuel or raw material on the basis that the burning of this waste came within the scope of the Waste Incineration Directive (WID). The wording of Article 2(a)(iv) of the Directive is as follows, and exempts: “*wood waste with the exception of wood waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coatings, and which includes in particular such wood waste originating from construction and demolition waste,*”. The phrase “may contain” in the wording appears to suggest that a precautionary approach should be applied, with the remainder of the Article stating that this precautionary approach should prevail in particular for C & D waste.

It follows that the combustion of any C & D waste in the absence of WID compliance at Finsa can only be permitted if there is a very high level of assurance that no wood treated as described in the Article is present. The applicant has submitted details of the sampling, analysis and inspection procedures that would be used for C & D wastes, as well as procedures on supplier education, monitoring and auditing, staff training and other quality assurance measures. A lorryload of chipped waste timber arriving on site, from which samples would be taken for analysis for contaminants, would not be expected to have the homogeneity required to provide the necessary assurance of the absence of these contaminants. The licensee also has a poor compliance record which does not inspire confidence in its ability to ensure that no treated wastes would ultimately be used as fuel. Furthermore, any conditions in the licence requiring demonstration of the absence of such contaminants in the waste would not be a practical solution and would be very difficult to enforce.

With regard to the use of MDF as a raw material, an investigation conducted by the licensee showed that elevated formaldehyde emissions occur in these circumstances. The licensee's compliance record indicates that this prohibition is necessary to assist in compliance with formaldehyde ELVs.

Recommendation: No change.

A.2. Schedule B.1 Emission Limit Values (ELVs) for particulates.

The licensee objects to the particulate ELVs specified for bag filters, stating that the relevant BATNEEC guidance note and equivalent UK guidance specifies 50 mg/m³, and another plant within this sector has an ELV of 20 mg/m³, whereas the PD has specified various limits all under 10 mg/m³. These limits are far below manufacturers guarantees and are unachievable in the long term. The licensee wishes to retain ELVs of 10 mg/m³ for the bag filters, and 50 mg/m³ for cyclones.

Submission(s) on Objection: None.

Technical Committee's Evaluation: All the ELVs in question were set on the basis that they were used as input data for the dispersion modelling exercise conducted for the application, which indicated that the appropriate air quality guidelines or standards would be observed. The modelling indicated that even a small increase in particulate emissions from those values modelled could cause breaches of the appropriate ambient air quality guidelines. The licensee is required under Condition 6.9.1 to implement, within eighteen months of date of grant of licence, agreed measures which will reduce the impact of these emissions on air quality. Subsequent to fulfilment of this condition there may be scope to review these ELVs.

Recommendation: No change.

A.3. Schedule B.1 Emission Limit Values (ELVs) from EP1.

The applicant objects to the ELVs specified on EPI for (a) Condensable VOCs, (b) Formaldehyde and Total Aldehydes, (c) Sulphur Oxides, and (d) Ammonia., on the following grounds:

- (a) The ELV for condensable VOCs has been reduced from 130 mg/m³ in the existing licence to 55 mg/m³ in the PD. BATNEEC and UK (DEFRA) guidance for the sector both specify an ELV of 130 mg/m³, and a licence recently issued to another installation in the sector also specified an ELV of 130 mg/m³. The licensee therefore requests that the ELV of 130 mg/m³ specified in the existing licence is retained.*
- (b) The ELVs for formaldehyde and Total Aldehydes have been reduced from 20 mg/m³ in the existing licence to 10 mg/m³ in the PD from January 2007. BATNEEC and UK (DEFRA, 2003) guidance for the sector both specify ELVs of 20 mg/m³ for both parameters, and a licence recently issued to another installation in the sector also specified ELVs of 20 mg/m³. The licensee therefore requests that the ELVs of 20 mg/m³ specified in the existing licence are retained.*
- (c) The ELV for Sulphur Oxides has been reduced from 200 mg/m³ in the existing licence to 115 mg/m³ in the PD. The licensee can currently comply with the lower limit, but may in the future be prohibited from using increased quantities of Heavy Fuel Oil, a scenario which is likely due to increased competition for available fuels. The licensee notes that Condition 6.9.2 of the PD requires that Sulphur in Heavy Fuel Oil shall not exceed 1% by weight, a figure also used in UK sectoral guidance. The licensee therefore requests that the ELV of 200 mg/m³ specified in the existing licence is retained.*
- (d) The ELV for ammonia has been reduced from 70 mg/m³ in the existing licence to 30 mg/m³ in the PD. Frequency of monitoring for ammonia has increased from annually to monthly. BATNEEC guidance for the sector specifies an ELV of 70 mg/m³, and UK guidance for the sector does not consider ammonia as a parameter to be measured in emissions to air. The licensee has no ammonia sources from this emission point and states that historical monitoring shows low emission levels. The licensee therefore requests that the ELV of 70 mg/m³ and the annual monitoring specified in the existing licence is retained, and that additional monitoring can be requested in the event of problems arising.*

Submission(s) on Objection: None.

Technical Committee's Evaluation:

- (a) The proposed ELV for condensable VOCs was used as worst case input data for the model. The applicant has indicated that this value has only been exceeded once in the previous nine years, and it is therefore considered that the licensee is capable of complying with this ELV.
- (b) The ELV for formaldehyde in the PD was set on the basis that it was used as input data for the dispersion modelling exercise conducted for the application, which indicated that the appropriate air quality guidelines would be observed. The modelling indicated that even a small increase in emissions from the value modelled could cause breaches of the appropriate ambient air quality guidelines (the Danish C value for formaldehyde is 20 ug/m³). The company recently reported an elevated ambient formaldehyde measurement at Scariff Bridge (160 ug/m³), although the extent of possible contribution of traffic is unknown. The licensee is required under Condition 6.9.1 to implement, within eighteen months of date of grant of licence, agreed measures which will reduce the impact of these emissions on air quality. Subsequent to fulfilment of this condition there may be scope to review the ELV.

For total aldehydes, the data used in the model was based on an emission concentration of less than 7 mg/m³, the highest level recorded in the last three years. However, this represents only 6 measurements, and the modelling indicates that levels far higher than the requested 20 mg/m³ would not have an adverse impact on air quality.

- (c) For Sulphur Oxides, the modelling indicates that the predicted impact would be substantially below the Air Quality Standards, and from extrapolation, that the impact of emissions at the requested ELV of 200 mg/m³ would also comply with these standards. Further modelling is required to demonstrate this categorically.
- (d) In the case of ammonia, the worst-case input value used in the model was based on an emission concentration of approximately 11 mg/m³, and the predicted impact for the worst case scenario was less than 1% of the Danish C value. Historical monitoring records for ammonia at the plant indicate levels well below 30 mg/m³. It should also be noted however, on extrapolation of the model results that emissions at the requested ELV of 70 mg/m³ will have no significant impact on air quality.

Recommendation:

- (a) No change.
- (b) No change for formaldehyde ELV. Change ELV for Total aldehydes to 20 mg/m³.
- (c) Append "Note 1" to the flow figure for EP11 in Schedule B1. Note 1 is to read as follows: "This value may be increased up to a maximum of 200 mg/m³, subject to the agreement of the Agency on consideration of a revised impact assessment."
- (d) No change.

A.4. Schedule B.1 Emission Limit Values (ELVs) for particulates, flow, and formaldehyde from EP6.

The applicant objects to the ELVs specified on EP1 for (a) particulates, (b) flow, and (c) formaldehyde, on the following grounds:

- (a) The ELV for particulates has been reduced from 50 mg/m³ in the existing licence to 12 mg/m³ in the PD. BATNEEC and UK (DEFRA) guidance for the sector both specify an ELV of 50 mg/m³. The licensee therefore requests that the ELV of 130 mg/m³ specified in the existing licence is retained.*
- (b) The PD sets a maximum hourly flow of 48,000 Nm³ from EP6, whereas the design capacity of the fan is 96,000 Nm³. Whereas current measurements indicate the flowrate to be at the former value, the licensee believes it to be nearer to the higher value, and request that the higher value be set as the ELV.*
- (c) The ELV for formaldehyde has been reduced from 10 mg/m³ in the existing licence to 6 mg/m³ in the PD. BATNEEC guidance for the sector specifies an ELV of 5 mg/m³ for such emissions, while UK sectoral guidance specifies an ELV of 20 mg/m³. The licensee therefore requests that the ELV of 10 mg/m³ specified in the existing licence is retained.*

Submission(s) on Objection: None.

Technical Committee's Evaluation:

(a) and (c): As outlined previously, the modelling conducted for the application indicates that either of the requested increases in ELVs could cause breaches of the respective Danish C values. The licensee is required under Condition 6.9.1 to implement, within eighteen months of the date of grant of licence, agreed measures which will reduce the impact of these emissions on air quality. Subsequent to fulfilment of this condition there may be scope to review these ELVs.

(b) The higher flow value was modelled under scenario 2, which predicted no breaches of the Danish C value for formaldehyde at the concentration ELV specified in the RD

Recommendation: No change to the ELVs for particulates or formaldehyde. Change the hourly flow limit from 48,000 Nm³/hr to 96,000 Nm³/hr.

A.5. Schedule B.1 Emission Limit Values (ELVs) for formaldehyde from EP7.

The ELV for formaldehyde has been reduced from 20 mg/m³ in the existing licence to 7 mg/m³ in the PD. BATNEEC guidance for the sector specifies an ELV of 5 mg/m³ for such emissions, while UK sectoral guidance specifies an ELV of 20 mg/m³. The licensee therefore requests that the ELV of 20 mg/m³ specified in the existing licence is retained.

Submission(s) on Objection: None.

Technical Committee's Evaluation: As explained previously, any increase in formaldehyde emissions from those modelled could cause an unacceptable impact on local air quality. Subsequent to fulfilment of the requirements of Condition 6.9.1 there may be scope to review this ELV.

Recommendation: No change.

A.6. Schedule B.1 Emission Limit Values (ELVs) for flow on EP11.

The PD sets a maximum hourly flow of 3,240 Nm³ from EP11, based on information supplied in the application. The figure was supplied in error, the correct figure being 28,000 Nm³. The applicant requests that the higher figure is set as the ELV, and states that dispersion modelling will be revised accordingly, as part of condition 6.9.1.

Submission(s) on Objection: None.

Technical Committee's Evaluation: Further modelling of the emission at the higher flowrate is required to demonstrate that the requested increase in volume emission would not cause a breach of the relevant particulate air quality guidelines.

Recommendation: Append "Note 1" to the flow ELV for EP11 in Schedule B1. Note 1 is to read as follows:

This value may be increased up to a maximum of 28,000 Nm³, subject to the agreement of the Agency on consideration of a revised impact assessment.

A.7. Schedule B.2 Emissions to waters flow limits.

The applicant objects to the maximum daily flow limit of 500 m³ on DSI as during heavy rainfall up to 900 m³ can be emitted through this point. The applicant wishes to be allowed either to emit up to 900 m³ to allow for rainfall, or to have a limit of 500 m³, with an exemption for periods of heavy rainfall. The applicant states that the correlation between rainfall levels and emission flowrates is established, and therefore the submission of appropriate rainfall data in the event of exceedance of the 500 m³ limit would be adequate.

Submission(s) on Objection: None.

Technical Committee's Evaluation: The flow value in the PD was set on the basis that it was submitted in the application as being the maximum daily discharge volume, and was used as input data for the water quality assessment conducted for the application.

The licensee's proposal to allow a daily discharge of 900m³ is acceptable only with the proviso that loading limits are set on the basis of a daily discharge of 500 m³. The licensee's alternative proposal to submit rainfall records in order to allow an exemption from the limit in the PD is not considered a practical solution and would be very difficult to enforce.

Recommendation: Schedule B2, table for E.P. Ref DS1 to be amended as follows:

Replace:

mg/l
50
200
30
10
10

With:

kg/day
25
100
15
5
5

A.8. Condition 8.11.2

The applicant objects to the term “metals destined for recycling recovered from ash”, and the condition requires a dedicated, concreted storage area for such metals, with contained drainage. The applicant believes that the condition should instead refer to metals recovered during boiler fuel cleaning. These metals are collected in skips and transferred to the main metal skip for recycling, and the applicant does not think that a dedicated storage area should be required for such metals.

Submission(s) on Objection: None.

Technical Committee’s Evaluation: The licensee has installed a wood fuel screening system for the removal of ferrous material prior to combustion. This system has a magnet which ensures that no ferrous material enters the boiler as fuel, hence no such metals are present in the ash.

Recommendation: Replace the current wording of Condition 8.11.2 with the following:

“The licensee shall remove all ferrous materials from wood fuel prior to combustion, using the on site wood fuel screening system.”

A.9. Schedule A2. Quantity of ash allowed in onsite landfill annually.

The applicant objects to the limit of 740 tonnes in the PD. Ash generated from combustion of wood for fuel has increased to 1100 tonnes per annum in recent years, and the applicant requests a limit to reflect this increase.

Submission(s) on Objection: None.

Technical Committee’s Evaluation: There are no significant additional environmental impacts or risks arising from the increase in annual tonnage of ash going to the landfill.

Recommendation: Replace 740 tonnes/annum in Schedule A.2 with 1100 tonnes/annum.

A.10. Condition 3.11 Firewater Retention

There is currently a firewater retention facility to deal with fires in the Hot Gas Generator, dryer, and screening areas. These were determined to be the high risk areas in a risk assessment conducted as a requirement of the existing licence in 1997. There are valves on storm water drains that can be closed in the event of contamination, but these storm waters cannot be diverted to the firewater retention facility. The applicant requests that condition 3.11 is changed to reflect the situation on site.

Submission(s) on Objection: None.

Technical Committee’s Evaluation: The risk assessment did not identify stormwater diversion capability as a requirement for all stormwater discharges on site. However as this assessment was carried out in 1997, and there have been significant changes made to the site in the interim, a review may be appropriate at this stage

Recommendation: Replace condition 3.11.2 with the following:

3.11.2 The licensee shall carry out a review of the firewater risk assessment conducted as a requirement of licence register no. 22. The licensee shall submit the revised assessment and a report to the Agency on the findings and recommendations of the assessment within six months of the date of grant of this licence, and implement the recommendations of the assessment within eighteen months of the date of grant of licence.

3.11.3 The licensee shall have regard to the Environmental Protection Agency Draft Guidance Note to Industry on the Requirements for Fire-Water Retention Facilities when carrying out and implementing the risk assessment.

A.11. Schedule B2 Temperature limit on DS3.

The applicant objects to the 21.5°C limit, stating that it may be difficult to achieve in the summer, and request that a temperature difference limit of 10 °C between influent and effluent would be preferable.

Submission(s) on Objection: None.

Technical Committee’s Evaluation: A temperature difference limit of 10 °C as proposed by the licensee, would result in a rise in the river temperature at dry weather flow of less than 1 °C outside the mixing zone. This worst case impact is acceptable, and complies with the requirements of Condition 5.5 which allows a temperature rise of up to 1.5 °C. The extent of the mixing zone needs to be established however, to ensure that fish passage is not obstructed.

Recommendation:

Insert the following as Condition 6.10.4:

The licensee shall submit to the Agency, within twelve months of the date of grant of this licence, a study of the thermal impact of the cooling water discharge on the receiving waters. This study shall investigate the size and temperature of the thermal plume and the extent of the mixing zone.

Replace the following from Schedule B2, Emission Point Ref. DS3:

Temperature	21.5 °C (max.)
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With:

Temperature increase above intake	10 °C (max.)
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Replace the following from Schedule C2.2, Emission Point Ref. DS3:

Temperature	Continuous	Online temperature probe with recorder
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With:

Temperature increase above intake	Continuous	Online temperature probes with recorder
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Third Party Objections

B. Enterprise Ireland

Mr. William Fitzgerald, Senior Development Adviser in Construction & Timber Markets with Enterprise Ireland wrote to object to the restriction in the PD (Condition 8.8) on the use of C & D waste timber. Mr Fitzgerald outlines how the development of CHP plants at sawmills using sawmill residue as fuel has led to a decreasing availability of such residues for the applicant, leading it to use recycled C & D timber. Mr Fitzgerald states that the restriction in the PD will thus threaten the 140 jobs at the plant. He believes that significant quantities of pallet timber are currently being landfilled that could be recycled for use at the plant, and that Enterprise Ireland will work closely with the applicant to maximise the supply of recycled timber and eliminate the use of C & D material.

Submission(s) on Objection: None.

Technical Committee's Evaluation: The arguments in this objection have been dealt with in objection point A.1 above.

Recommendation: As per objection A.1 above.
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Overall Recommendation

It is recommended that the Board of the Agency grant a licence to the applicant

- (i) for the reasons outlined in the proposed determination and
- (ii) subject to the conditions and reasons for same in the Proposed Determination,
and
- (iii) subject to the amendments proposed in this report.

Signed

Seán O Donoghue,

for and on behalf of the Technical Committee