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Programme Manager, Frank Clinton
Signed: Suzanne Smith Date: 12/2/14



OFFICE
LICENSING &
RESOURCE USE

INSPECTOR'S REPORT ON A TECHNICAL AMENDMENT TO AN IE LICENCE

TO:	Dara Lynott, Director
FROM:	Pamela McDonnell
DATE:	12th February 2014
RE:	Technical Amendment to IE Licence Reg. P0606-03, SSE Generation Ireland Limited.

SUMMARY

SSE Generation Ireland Limited has requested a Technical Amendment to IE licence Reg. No. P0606-03, to increase the daily flow rate emission limit value (ELV) relating to SW2 (a cooling water discharge), to amend the site boundary and to discharge surface water through SW2 (a foul water discharge point). This memo recommends that the changes may be accommodated by a Technical Amendment, in accordance with Section 96(1)(b) of the EPA Acts 1992 to 2012.

BACKGROUND

SSE Generation Ireland Limited operates the Great Island Generating Station at Campile, New Ross, Co. Wexford. IPPC licence Reg. P0606-03 was granted to Endessa Ireland Limited on the 16/03/2011 under Class 2.1 of the First Schedule of the EPA Act 1992 for the following activity:

- *The operation of combustion installations with a rated thermal input equal to or greater than 50MW.*

Endessa Ireland limited (CRO Number 459400) changed its name to SSE Generation Ireland Limited on the 19th October 2012, and have submitted a *Certificate of Incorporation on change of name* accordingly. The registered address of the company has also changed.

The installation falls under category 1.1 of Annex I of the Industrial Emissions Directive (2010/75/EU).

The review (P0606-03) allowed for the replacement of the existing 240MW Heavy Fuel Oil (HFO) fired power plant with a natural gas fired 430MW Combined Cycle Gas Turbine (CCGT) power plant.

A technical amendment (Technical Amendment A) was made to the licence on the 04/09/2012 to amend the site boundary, amend a number of glossary terms, amend conditions and schedules relating to groundwater, and to amend the schedule relating to SW13 (process waste water).

A Section 82A(11) Amendment issued on 19th December 2013 to bring the licence into compliance with IED.

TECHNICAL AMENDMENT REQUEST

Request 1: Maximum Daily Flow Limit at SW2 (dated 4/2/13)

Following issue of the Proposed Determination (PD) for P0606-03, the licensee made a First Party Objection in relation to the cooling water discharge from SW2. The PD required the licensee to reduce cooling water volumes discharged (from 50,170m³/hr to 25,000m³/hr) once the CCGT commenced commercial operation. Limits were also applied to the temperature of the discharge. The target volumes stipulated in the PD were based on values provided by the licensee before the CCGT plant design and optimisation processes had been completed.

Following detailed engineering and plant optimisation, the licensee established that by increasing the target volume of the cooling water discharge from the CCGT (from 25,000m³/hr to 33,000m³/hr), the temperature of the discharge could be further reduced, thereby reducing thermal rise in the estuary. These revised figures for volume, temperature and thermal load were presented in their First Party Objection for inclusion in the Final Determination (FD). The applicant also proposed a corresponding decrease in the thermal load limit as part of the objection.

The Technical Committee (TC) assessed the changes proposed and approved them for inclusion in the FD on the basis that:

- Cooling water discharged from the existing HFO plant (50,170m³/hr and 15°C above ambient) is not causing a negative impact in the estuary. Hydrodynamic modelling carried out for the purposes of the review demonstrates that reducing the volume to 25,000m³/hr when the CCGT became operational would reduce the extent and temperature of the thermal plume on the estuary.
- The new increased discharge rate proposed by the licensee of 33,000m³/hr is still considerably lower than the discharge currently occurring into the estuary. As the temperature of the cooling water will be reduced as a result, then the extent of the thermal plume in the estuary will still be reduced with respect to that from the HFO plant.
- Therefore, it was considered by the TC that the revised target temperature, discharge rate and thermal load limits proposed for SW2 will not have a significant adverse impact on the receiving environment when compared to the existing situation.

On the 04/02/2013 the licensee wrote to the Office of Environmental Enforcement (OEE) to request that the maximum daily volume limit at SW2 (cooling water discharge) be corrected from 600,000m³/d to 792,000m³/d. This increase in the daily volume limit to 792,000m³/d is a direct extrapolation from the new hourly volume limit of 33,000m³/hr, which had been approved by the TC for P0606-03.

OEE passed this request to the Environmental Licensing Programme (ELP) for consideration, confirming that the proposed change cannot be accommodated under the existing licence.

It is noted that the change in daily limit was requested by the applicant in the First Party Objection to PD P0606-03 but had been omitted by the TC.

Following issue of the FD for P0606-03, the licensee requested the change to the daily limit again as part of the request for Technical Amendment A. This part of the

TA request was refused on the basis that the increase in the maximum daily limit was not raised in the first party objection to the Proposed Determination (PD). As part of the current TA request, the licensee points out that the change in daily limit was requested in the objection to the PD and that they "*disagree with the statement in the technical report on the assessment for technical amendment, that it was not raised in the first party objection to the proposed determination*".

It is noted that the proposed daily limit of 792,000m³/d is an extrapolation of the hourly limit which was previously approved and that there will be no overall increase in the quantity of the discharge. It is also noted that the licensee did not seek an increase in the thermal load limit as part of this TA request, so thermal loads will be still be lower with respect to that from the HFO plant. It is noted that the current discharge volume of 1,204,080m³/d / 50,170m³/hr is not having a significant negative impact on the estuary and that the new daily volume proposed is considerably less than the current discharge volume. In consideration of the above and having re-examined the assessments carried out for the purposes of the last licence review P0606-03, it can be concluded that the proposed daily limit will not have a significant adverse impact on the receiving environment when compared to the existing situation.

As the changes proposed are to facilitate a discharge that was already contemplated by the terms of *Schedule B.2 Emissions to Water* and Condition 5.1, but which was not expressly provided for in the Schedule, it is proposed that the change may be accommodated by a Technical Amendment, in accordance with Section 96(1)(b) of the EPA Acts 1992 to 2013.

Request 2: SW3, Site Boundary and BH3 (dated 25/3/13)

On the 25/03/2013 the licensee requested the following additional amendments to the licence.

- (a) SW3 is a discharge point from the foul water treatment system. ELVs have been applied to the discharge in *Schedule B.2 Emissions to Water* of the current licence. The licensee now proposes to also discharge surface water through this emission point. The licensee states that the surface water and foul water streams will be monitored separately prior to discharge at SW3 and there will be a facility to isolate each stream if required.

Therefore it is proposed to amend *Schedule B.2 Emissions to Water* to indicate that the ELVs apply to the foul discharge at a point (named SW3a) upstream of the connection with the surface water discharge. The Schedule requires that the location of SW3a shall be agreed by the Agency.

It is also proposed to amend *Schedule C.2.3 Monitoring of Storm Water Emissions* to require monitoring of the surface water stream at a point (named SW3b) upstream of the connection with the foul water discharge. Condition 11.9 requires the licensee to maintain up-to-date site drawings/plans showing all monitoring locations and emission points.

- (b) The licensee proposes to exclude two areas from the site boundary as per Drawing No. GISB-1201 (Rev 1, dated March-13) which was submitted in support of the technical amendment (see areas marked "This Area is to be Excluded Also" on the attached map). The licensee states that this

amendment was applied for during the last Technical Amendment but that the wrong map was submitted for assessment. The areas identified on the map are being transferred to Eirgrid and Bord Gais under 99 year leases and will be used for non-licensable activities. OEE have confirmed that they are satisfied that the highlighted areas can be excluded from the site boundary, stating that the identified areas were never part of the production on site. They also state that one area was covered in trees and the other in overgrowth. Therefore it is proposed to amend Condition 1.3 to reflect the new Drawing number relevant to the amended boundary.

- (c) The licensee requested to relocate borehole BH3. However, in response to a request for information and following consultation with OEE, they confirmed that the relocation of the borehole can be accommodated under the existing licence.

As the changes proposed above are considered to already have been contemplated by the terms of licence, but are not expressly provided for in the licence, it is proposed that the changes may be accommodated by a Technical Amendment, in accordance with Section 96(1)(b) of the EPA Acts 1992 to 2013.

APPROPRIATE ASSESSMENT

The installation discharges waste water to the transitional waters of both the River Barrow and the River Nore SAC (002162) and the Lower River Suir SAC (002137), which are located adjacent to the installation boundary. Cooling water is also extracted from this area.

It is noted that Bannow Bay SAC (site code 000697), Tramore Dunes and Backstrand SAC (site code 000671) and Hook Head SAC (site code 000764) are located within 20km of the installation, the nearest being situated 11km south east of the installation (Bannow Bay SAC). Given the distance from the installation and the lack of direct pathways connecting the European sites to the installation, it is considered that these three sites are not at risk of adverse impacts from the licensable activity.

The River Barrow and the River Nore SAC (002162) consists of the freshwater stretches of the Barrow/Nore River catchments as far upstream as the Slieve Bloom Mountains and it also includes the tidal elements and estuary as far downstream as Creadun Head in Waterford. The site holds alluvial wet woodlands and petrifying springs which are priority habitats on Annex I of the E.U. Habitats Directive. The site is selected as a candidate SAC for old oak woodlands, floating river vegetation, estuary, tidal mudflats, *Salicornia* mudflats, Atlantic salt meadows, Mediterranean salt meadows, dry heath and eutrophic tall herbs and all habitats listed on Annex I of the E.U. Habitats Directive. The site is also selected for the following species listed on Annex II of the same directive – Sea Lamprey, River Lamprey, Brook Lamprey, Freshwater Pearl Mussel, Nore Freshwater Pearl Mussel, Crayfish, Twaite Shad, Atlantic Salmon, Otter, Desmoulin's Whorl Snail *Vertigo moulinsiana* and the Killarney Fern.

The Lower River Suir SAC (002137) consists of the freshwater stretches of the River Suir immediately south of Thurles and the tidal stretches as far as the confluence with the Barrow/Nore immediately east of Cheekpoint in Co. Waterford, as well as many tributaries. The site is a candidate SAC selected for the presence of the priority habitats on Annex I of the E.U. Habitats Directive - alluvial wet woodlands and Yew

Wood. The site is also selected as a candidate SAC for floating river vegetation, Atlantic salt meadows, Mediterranean salt meadows, old oak woodlands and eutrophic tall herbs, all habitats listed on Annex I of the E.U. Habitats Directive. The site is also selected for the following species listed on Annex II of the same directive - Sea Lamprey, River Lamprey, Brook Lamprey, Freshwater Pearl Mussel, Crayfish, Twaité Shad, Atlantic Salmon and Otter.

Parts of the site have also been identified as of ornithological importance for a number of Annex I (EU Birds Directive) bird species, including Greenland White-fronted Goose (10), Golden Plover (1490), Whooper Swan (7) and Kingfisher.

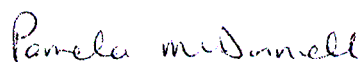
A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the proposed activity, individually or in combination with other plans or projects is likely to have a significant effect on a European Site(s). In this context, particular attention was paid to the European sites at River Barrow and the River Nore SAC (002162) and the Lower River Suir SAC (002137) and the Agency considered, for the reasons set out below, that the proposed activity is not directly connected with or necessary to the management of those sites as European Sites and that it can be excluded on the basis of objective scientific information, that the proposed activity, individually or in combination with other plans or projects, will have a significant effect on a European site, and accordingly the Agency determined that an Appropriate Assessment of the activity is not required.

This determination is based on the fact that the changes proposed as part of this technical amendment do not substantially change the nature or extent of the operations and emissions at the installation from what was considered during the last licence review (P0606-03).

RECOMMENDATION

I recommend that the licence amendment be approved as set out in the attached Recommended Technical Amendment. The making of the amendment will not result in the relevant requirements of Section 83(5) of the EPA Acts 1992 to 2013 ceasing to be satisfied.

Signed



Pamela McDonnell
Inspector
Environmental Licensing Programme