

## MS Marine Licensing

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**From:** Natalie Ward [REDACTED]  
**Sent:** 15 June 2017 15:00  
**To:** [REDACTED]  
**Subject:** EDF Energy Hunterston B Power Station - proposed seaweed removal

Dear Mr Taylor,

Many thanks for your phone call and e-mail dated 1<sup>st</sup> June regarding the proposed removal of seaweed from sea bed areas adjacent to the cooling water intake for EDF Hunterston B Power Station. We note that the works to remove seaweed at this site are required for operational reasons at the power station (to prevent blockages of intake screens and filters).

We understand that seaweed removal was carried out within the area indicated on the accompanying map twice in 2016 (May and September). However following liaison with Marine Scotland, locations where the seaweed was removed from within the map area and the seaweed species and biomass removed were not specified.

Our coastal advisors have reviewed the information provided by EDF and the advice provided below summarises the information we would expect to accompany a marine licence application for the proposed seaweed removal at that site to fully inform our advice. We understand that EDF is preparing an Environmental Impact Statement to accompany the application, which we welcome.

### Baseline environmental information

We note drop down video surveys were carried out prior to seaweed removal and to monitor seaweed regrowth later in 2016 following initial removal in May. This survey information is useful to provide a baseline indicating the character of the seabed as well as the extent and species of seaweed present prior to works taking place. We recommend a summary of the findings of the available benthic video surveys is included with the Environmental Impact Statement. Information about the typical species / biotopes found and extent of seaweed cover within the survey area as well as locations of drop down surveys should be included. It would be useful to have an indication of how much seaweed (biomass) and seaweed species were removed during the 2016 works.

### Information about future seaweed removal

The Environmental Impact Statement should include the proposed frequency and extent of seaweed removal to be carried out on an annual basis (i.e. if removal will be carried out across the entire area indicated on the map or restricted to specified areas of regrowth. An indication of the seaweed species and estimation of the biomass (range) to be removed would be useful to fully inform our advice (though we recognise that this and areas where removal is required may vary annually according to conditions). The protocol for this should be outlined. i.e. if a drop down survey will be conducted periodically to determine the extent of removal required. We note that 2 methods are proposed for removal of seaweed and what method is used is governed by the seabed topography. It would be helpful if the Environmental Impact Statement specified where each of the two methods are being employed across the proposed clearance area.

### Invasive Non Native Species

The Environmental Impact Statement should include consideration of risks associated with invasive non-native species (INNS). The invasive non-native colonial carpet sea squirt (*Didemnum vexillum*) has been found in previous surveys in the Clyde not far from this location (See commissioned report [http://www.snh.org.uk/pdfs/publications/commissioned\\_reports/413.pdf](http://www.snh.org.uk/pdfs/publications/commissioned_reports/413.pdf)) This species is suggested to have a preference for artificial structures and/or vertical substrates therefore screens and filters may potentially be vulnerable to colonisation. Appropriate biosecurity protocols should be in place, notably with respect to the cleaning of gear used to remove seaweed and appropriate disposal of the removed seaweed. Guidance can be found here: <http://www.snh.gov.uk/docs/A1294630.pdf>

Surveys to monitor presence of *Didemnum vexillum* in the Clyde area are planned for later in 2017 (Marine Scotland and SNH). It would be useful if available drop down video footage could be checked for the presence of this species.

In the course of monitoring seaweed growth, future video surveys could potentially be useful to monitor for the presence of this invasive species and any potential records reported to SNH / Marine Scotland. We would be happy to advise further with respect to identification and monitoring of this species.

Seaweed disposal

As a result of the risk of spread of INNS, seaweed removed should not be deposited back into the marine environment at another location. Further advice on appropriate disposal should be sought from SEPA/local authority.

Impacts on Southannan Sands Site of Special Scientific Interest (SSSI)

Southannan Sands SSSI is situated adjacent to the proposed removal locations and our initial thoughts are that the proposed works are unlikely to have a significant impact on the feature of this adjacent SSSI (sandflats), however we would need to see final details of the proposed clearance area and volume of seaweed to be removed to inform our advice at the application stage.

I hope these comments are useful to you at this stage.

Kind Regards

Natalie Ward



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**From:** [redacted]  
**Sent:** 01 June 2017 18:28  
**To:** [redacted]  
**Cc:** [redacted]  
**Subject:** EDF Energy Hunterston B Power Station.

Dear Natalie,

Many thanks for the discussion today regarding SNH interests in proposals to be made by EDF Energy Hunterston B Power Station – regarding removal of some seaweed from sea bed areas adjacent to our cooling water intake.

I enclose some info which is intended to assist understanding of our proposed activity, and prompt any additional questions or clarification that you feel may be asked during the consultation process so we can assist early.

In way of setting the context - Hunterston B Power Station takes in high volume Seawater in order to provide cooling for various electricity generation processes – this is then discharged back to the sea. The power station equipment is protected from marine material by a series of intake screens and filters which can become blocked under certain wind / tide / seasonal conditions and such blockages can lead to significant generation losses. We do

employ a number of marine ingress preventative measures (i.e., Jelly Fish bubble curtain) and last year we carried out some limited seaweed removal activities (under the knowledge and guidance of Marine Scotland and Fisheries).

Through continuing discussions with Marine Scotland, and recent changes in policy regarding seaweed removal, we are now in the process of applying for the seaweed removal activities to be approved via License and we understand SNH will be consulted.

The Station operation has been significantly impacted by seaweed and other marine ingress under storm conditions in the past and we seek to minimise any challenges to the electricity supply to the National Grid from the Power Station.

Last year we conducted some underwater surveillance, and some seaweed removal which we believe has significantly reduced our operational risk, and we are seeking permission to continue this activity.

I enclose a note describing the activities last year, and also a diagram of the area which was surveyed, and which is likely to be the area designated for some limited removal, as part of the application. The seaweed removal is from the Seabed – in water depths accessible by fishing boat, and significantly below MHWS.

We are currently assessing very recent (this week) drop down camera survey footage as part of the Environmental Impact Statement (part of the application)

During discussion with Marine Scotland (Malcolm Rose - CC) it was suggested that we engage early with Scottish Natural Heritage in order to potentially shorten the consultation process, and to determine early on if there was any significant interest in this activity, or indeed if this activity falls out with the scope of SNH interest.

I would be happy to provide any further information and would be interested in any early feedback you feel you could share.

Best Regards

**Andy Taylor**

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