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BY E-MAIL ONLY

5 February 2016

Dear Mr Woznicki

**Merchant Shipping (Ship-to-Ship Oil Transfers) Regulations 2010 (as amended)  
Cromarty Firth Port Authority – application for an oil transfer licence**

I write on behalf of RSPB Scotland (the operating arm in Scotland of the Royal Society for the Protection of Birds – “the RSPB”) to comment on the application by the Cromarty Firth Port Authority (“CFPA”) for a ship-to-ship (“STS”) oil transfer licence in terms of the Merchant Shipping (Ship-to-Ship Oil Transfers) Regulations 2010 (as amended) (“the 2010 regulations”).

Schedules 1 and 2 of the 2010 regulations transpose the respective requirements of the Habitats Directive (Article 6 (3-4)) and the Environmental Impact Assessment (“EIA”) Directive to the oil transfer licence consenting process, in the same way that they already apply to a very wide range of other consents in the UK and UK countries. The RSPB is involved with hundreds of development planning cases each year, most of which involve EIA, and many of which also involve application of the various regulations that transpose Article 6(3-4) of the Habitats Directive to consenting regimes in the UK and UK countries. We have considerable experience and expertise in environmental assessment both at project and strategic levels of decision-making. We are actively involved in the EIA process at all levels from the national and international debate on legislation and policy down to its application to individual consents, both in Scotland and the rest of the UK.

**RSPB Scotland objects to CFPA’s application in its current form**, as the information provided by the applicant is clearly not adequate to allow a competent assessment by the Secretary of State (“the SoS”) of the environmental effects of the proposed STS activities as required by Schedules 1 and 2 of the 2010 regulations. We have appended detailed comments on the application documents as an annex to this letter, but in particular we wish to emphasise:

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- It is not clear from the application documentation whether the new location for which the STS licence is applied for is to be operated instead of, or in addition to STS activities already licensed to CFPA
- A cumulative impact assessment of the environmental effects of (all) STS and other oil transfer activity is entirely lacking; without this it is impossible to evaluate the adequacy of the proposed mitigation measures
- There is no oil spill risk-assessment: consequently, it is impossible to evaluate the adequacy of measures currently proposed to mitigate the risk/impact of oil spill
- The oil spill modelling in Appendix B is based on highly questionable assumptions and consequently does not cover anything that could reasonably be described as a realistic worst case scenario
- A complete lack of detail as to how the proposed highly generic mitigation measures will in fact offset the impacts identified in the report (we find detail on impacts and mitigation to be equally lacking)

Consequently, we strongly recommend that the SoS directs CFPA in terms of paragraph 3 of Schedule 2 of the 2010 regulations to provide additional information, specifically addressing the points raised above, and to include (in particular):

- A clear description of the project and in particular how it is envisaged to relate to existing STS and other oil transfer operations in the harbour area in terms of the overall volumes of oil to be handled
- A cumulative risk assessment considering both the likelihood and potential impact of oil spill occurring in the harbour area, supported by modelling to include realistic worst case scenario (tier 2 spill, 25 knot (a) south-easterly and (b) westerly wind, rising tide – testing potential oil ingress to the Cromarty Firth “proper” and on to the Culbin Bars SAC respectively)
- A thorough cumulative impact assessment of all of the effects of noise, oil spill risk and ballast water impacts on environmental receptors, and including a clear and detailed description of how the various mitigation measures will offset each the specific adverse effects; mitigation measures must address both “likelihood” and “severity” sides of the risk equation

We note the similarity in many places between the current application and that prepared in support of Orkney Islands Council (“OIC”)’s 2014 application for an oil transfer licence for Scapa Flow. In our view, CFPA’s current application differs fundamentally from OIC’s in that the Scapa application involved no change in the type, volume or location of oil to be transferred and the major issue was whether OIC’s new ballast water management regime would protect European wildlife sites from invasive species. CFPA’s application involves a new location for oil transfers and a significant increase in the volume of oil to be transferred. Because the risk of oil spill tends to increase in proportion to the number of operations and to the total volume of oil transferred, in contrast to Scapa Flow the current application requires (but fails) to demonstrate that the increased risk is adequately mitigated.

Conclusion

RSPB Scotland **objects** to the application for an oil transfer licence for the new location in CFP A harbour waters. We would be prepared to review our position, and potentially withdraw our objection, subject to the provision of further environmental information clarifying the points raised above and expanded on in the annex appended to this letter. The information will need to be sufficient to ascertain that there will be no adverse impact on the integrity of European wildlife sites, principally: the Cromarty Firth SPA; the Moray Firth SAC; the Moray Firth dSPA; the Culbin Bars SAC; the Inner Moray Firth SPA; and the Moray and Nairn Coast SPA.

In our view this further information will be “environmental information” in the sense of the Environmental Impact Assessment Directive and transposing legislation, and will thus require to be made available to the public for further consultation. We would hope to be able to comment constructively on such information when it is forthcoming.

In the meantime, please do not hesitate to contact me for clarification or further information.

Yours sincerely

[BY E-MAIL ONLY]

Richard Evans

Senior Conservation Policy Officer, RSPB Scotland

Cc:

Cromarty Firth Port Authority  
Intertek  
RSPB Scotland, Inverness  
The Highland Council  
Scottish Natural Heritage  
Scottish Environmental Protection Agency  
Marine Scotland

## **ANNEX – detailed comments from RSPB Scotland on CFA’s application for an oil transfer licence**

### **Non-technical summary**

**Ballast water:** *“The release of ballast water associated with the proposed cargo transfers will not cause a significant impact on fauna and flora in the area, as application of the recommendations set out in the International Maritime Organisation Ballast Water Management (IMO BWM) Convention and minimising the volume of ballast water discharged will control and prevent the introduction of harmful or alien species to the marine environment from ballast water.”*

It is not clear how CFPFA will require the application of the measures specified in the IMBWMC, nor (in the main body of the ES) how or the degree to which the individual measures will mitigate the specific local (potential) impacts.

**Oil Spill Contingency Plan (OSCP):** *“Consequences of an oil spill on a number of receptors could be significant. However, procedures are in place to prevent the accidental discharge of oil and the risk of a significant impact is considered unlikely. Therefore, no residual effects are predicted. In the unlikely event of an oil spill, the Oil Spill Contingency Plan (OSCP) will be enacted to contain and remove pollutant.”*

We agree that the wildlife and environmental consequences of an oil spill could be significant. Mitigation measures should be aimed at reducing both the likelihood and scale of any impact, on the basis that “risk” is a combination of both these elements. The ES lacks specificity and detail about whether and how different potential mitigation measures are likely to reduce either the scale or the likelihood of impact. It is not clear how the OSCP provided for comment differs from the previous version; in particular, there is no indication of what changes have been made to the availability and potential deployment of anti-pollution equipment in response to the proposal to locate STS operations outside the (geographical) Cromarty Firth “proper”. While there may be sound operational reasons (and potentially a reduction in the risk of the risk of INNS being transported via ballast water to the Cromarty Firth itself), none are stated; there is no analysis of the potential benefits and disbenefits of the current proposal compared with the *status quo* of carrying out STS alongside the Nigg oil terminal jetty (where our questions about the availability and suitability of anti-pollution equipment do not arise). We also question a number of the assumptions on which the oil spill modelling has been based; this could be at least partly addressed by presenting a wider range of scenarios, as well as a more comprehensive risk assessment that considers both the likelihood and scale of impact of each scenario.

### **Main report**

**1.3 Background to the application:** *“PoCF currently holds an OTL to undertake Ship-to-Ship (STS) transfers alongside the jetty at the Nigg Oil Terminal. ... PoCF now wishes to apply for a new OTL to undertake STS transfers at anchor within the outer*

*Cromarty Firth Harbour Area. The proposed locations are outside the Cromarty Firth but within the harbour limits extending to the Moray Firth.”*

This is a potentially significant locational change, the implications of which are not explored by the ES. This wording is not clear as to whether CFPA’s wish “now” is to move the existing level of operation to a new location, or to operate at the new location in addition to the current location. This lack of clarity as to the nature, scale and scope of the operation is unhelpful.

**3:** *“Only one STS location will be used at any given time.”*

This is helpful clarification, up to a point. However, it is not clear whether the activity that is currently proposed to be licensed is a substitute for or additional to the STS activity currently licensed. Consequently, it is not clear if comments are invited simply on the effects of a change of location, or on the cumulative effects of STS at two locations in CFPA harbour waters (the new locations and the Nigg oil terminal jetty). Given the apparent dependence for counter-pollution capability on the availability of equipment at the Nigg oil terminal, it seems to us essential also to have a clear statement that STS will not take place at the new locations at that same time as any oil transfer activity at the Nigg oil terminal (whether STS, or directly between vessel(s) and the oil terminal). The ES lacks clarity as to the ability of CFPA to make such a guarantee. This in turn has implications for the assessment of the availability of adequate resources to deploy in the event of an oil pollution incident arising from STS at the proposed new location(s).

**4.1.2:** *“A fire-fighting tug will be in attendance at all times when a vessel is carrying out a cargo transfer.”*

Noted. It would be helpful to know whether and if so what oil spill response equipment would be carried on board the tug.

**4.1.3:** *“All staff carrying out the operation will have adequate training to perform the operation.”*

What are the relevant standards of training? Who carries out the training and assesses staff compliance with the relevant standards? How will PoCF ensure that third-party personnel are appropriately trained and/or qualified?

*“PoCF states that transfer operations must be suspended if the following operational constraints are reached:*

- *Wind speeds of over 27 knots*
- *Sea / swell wave heights of over 2 metres*
- *If mean wind strength exceeds 35 knots, cargo transfer operations shall cease. All cargo hoses shall be disconnected, and consideration given to unmooring the mother and daughter vessels to separate anchorages until there is a moderation in the weather, when cargo operations can safely resume.*

*The procedures for mooring and transfer operations are subject to the approval of PoCF. The operation shall only take place if both Masters, the PoCF pilot and STS Superintendent are satisfied that conditions are suitable for mooring, cargo transfer and unmooring.*

*Either Master or the STS Superintendent may request cessation of the operations due to an unsafe condition and operations shall not resume until all three parties agree that it is safe to do so.”*

All noted. It is not clear what is triggered by a wind speed of 27 knots, and what is the difference between suspending the operation at that wind speed, and causing it to cease at a higher speed of 35 knots. We would welcome clarification.

**4.1.5** *“The maximum quantity to be transferred in a single operation is 180,000 tonnes. This equates to a maximum of 8,640,000 tonnes transferred per annum.”*

Clarification is needed as to whether these volumes are additional to those already consented under CFPA’s existing licence, or volumes for all STS operations in the harbour area in combination at all locations. If the former, details are required in the current application of the existing consent, including maximum volume of oil, location(s), existing mitigation measures and any conditions attached to the licence

We assume the maximum quantity to be transferred in a single operation to relate directly to vessel size, and note that it is the same quantity as specified in Orkney Islands Council’s application for Scapa Flow.

The maximum annual quantity to be transferred per year is approximately seven times the actual average annual quantity specified in Table 5-1. If such a level of increased activity was realised, we consider it would have a significant effect on the risk of oil pollution incidents, on the basis that, in the absence of adequate mitigation, the likelihood of an incident occurring will increase roughly in proportion to the increase in oil transfer activity. Thus, a realistic assessment of the unmitigated risks associated with the proposed level of activity is an essential precursor to establishing what is an appropriate set of mitigation measures to reduce the overall risk to an acceptable level. We find no evidence of such an approach having been adopted in any of the application documentation, including the OSCP presented as Appendix D.

This contrasts with our experience of other OSCPs such as Clearwater Forth; and we consider it a serious omission in this instance, where there is also a notable change in location for the proposed activity, the significance of which is also not addressed in the ES or OSCP. We would have expected to have seen this application supported by a realistic comparison of the risks of oil pollution associated with both the current and proposed levels and locations of STS and oil handling activity, in order to assess firstly the degree to which the risk of pollution would be likely to change, and consequently a robust assessment of the need or not for additional mitigation measures (including

counter pollution measures that specified by the OSCP) compared with those currently available. It would also be helpful for the ES to have included a rationale for the proposed change of location and increase in intensity, in order to allow (if necessary) consideration to be given to the relative public interest merits of the proposed new STS arrangements, compared with the *status quo*.

**5.1.1:** *“Cromarty Firth harbour waters provide a sheltered deep water channel; as a result the Cromarty Firth has always been of considerable importance for shipping and trade.”*

While this is a reasonable description of the Cromarty Firth itself, it does not apply also to the CFP waters now proposed to be used for STS, which are exposed to winds from approximately SSW through E to NE.

**5.2.1:** *“Oil spills were modelled at the STS locations for medium crude oil; for the average yearly wind speed derived from the Met Office WAVEWATCH IIITM wave model archive, for a variety of wind directions (including yearly predominant wind and blowing towards the nearest coastal sensitive sites) and for a full spring-neap tidal cycle. Details of the oil spill modelling are provided in Appendix B.”*

We have significant reservations about the oil spill modelling, in particular (i) the selection of only a single wind speed and (ii) the decision to consider only very small spills.

**5.2.2.2:** *“PoCF already has a variety of mitigation measures in place. Implementation of these measures will ensure that the adverse environmental effects of the proposed cargo transfers are minimised wherever possible to as low as reasonably practicable (ALARP).”*

This misses the crucial point that what is now proposed is very different in terms of quantity and location from what is currently licensed and takes place. Therefore the ES needs to explain why the existing mitigation measures will be adequate to minimise the effects of the new proposal. In our view the ES does not do this. We note that this text is identical to that in the equivalent place in the documents prepared by Intertek to support OIC’s application for a oil transfer licence at Scapa Flow. That application was fundamentally different from PoCF’s current application, in that both the location and scale of transfer operations at Scapa would remain the same (the principal change there being to the ballast water management regime). Therefore, at Scapa, it was appropriate to conclude that the pre-existing counter-pollution measures would continue to be adequate to mitigate any oil spill impacts arising from operations carried out under the new licence. However, this is not the case for PoCF’s application, which potentially requires new and additional mitigation measures and procedures to be put in place in order to mitigate the altered risks arising from the proposed new location and scale of operations set out in the application documents.

**5.2.3.1:** “The HRA screening process applied the following steps as set out in SNH’s HRA guidance document (Tyldesley, 2015)”.

This is useful guidance, but it should be noted that it applies strictly speaking to “plans” in the sense of development plans, and not to individual projects. It is therefore drafted from the point of view of ensuring that development plans (in a plan-led town and country planning system) contain policies that are appropriate and clearly identify when project-level HRA will be required. Because planning authorities are legally obliged to have adopted up-to-date development plans, there is no room in the guidance for what is commonly referred to in Habitats Directive/Regulations guidance as the “zero option” – i.e. refusing consent. Consequently, the SNH document referred to includes guidance on deferring HRA to the level of individual projects, which means that any support given to a project by an adopted development plan is conditional on the project itself meeting the requirements of the relevant regulations transposing Article 6 of the Habitats Directive. If these requirements are not met, the project in question must not be consented, regardless of any support given by the development plan. It is this principle that applies to oil transfer licences, set out in Schedule 1 of the 2010 regulations (as amended).

**5.3.1.2:** “Accidental oil spill could arise during a proposed cargo transfer or due to accidental fire or explosion onboard. The maximum mass of oil that could be spilt in the course of a transfer is 1,000 kg; this would be the quantity of oil spilled from a fractured hose.”

In our view this statement significantly understates the likelihood and scale of risk associated with STS transfer activity. No consideration appears to have been given to the possibility of collision between vessels, or to the possibility that more than 1 tonne of oil could ever be spilled in any STS-related incident. Given that oil spill risks tend to relate to events with low likelihood, an assessment that overlooks an entire category of event is likely to seriously underestimate the overall risk, particularly if the consequences of this type of event may be many times more severe than the maximum severity of events actually considered.

Regrettably, this appears to be the case here. The list of bullet points in this paragraph describes a series of moments during STS when oil could be spilled, but does not describe the process leading to spillage (which should then read across to appropriate mitigation measures), or the relative likelihood or severity (and thus overall risk) of a spill occurring at each stage. As elsewhere in the PoCF application, we note that the wording of this section of the documentation is identical to that submitted in support of OIC’s application for Scapa Flow, where the primary concern was ballast water management , not oil spill risk (for which there was no significant overall change arising from the OIC proposals).

**5.3.2: Table 5.2 (showing mitigation and residual effects):** States for a number of receptors that [the risk of] “Accidental oil spill” will be mitigated by “Application of best

*practice in proposed cargo transfer activities” and “Application of the OSCP”, with the residual environmental effect that: “Adoption of best practice methods will reduce the risks of oil spill” and “If a small spill occurs the spill will be minimised in scale and effects managed.”*

Mitigating oil spill risk is key to the environmental acceptability of the entire proposal, and thus it is crucial that the measures relied on as mitigation can be convincingly demonstrated to be likely to have the beneficial offsetting effect stated for them. Where a receptor is a Natura 2000 feature, the offsetting effect must be certain in order for it to be taken into account in the appropriate assessment. We consider the application documents to be lacking in explanation and detail to demonstrate how and to what degree the specified measures would mitigate the identified environmental effects. In particular:

- The potential environmental effects are not quantified (particularly in terms of risk – likelihood and severity of effect)
- The specified mitigation measures are not quantified – consequently the documents fail to demonstrate that the measures would in fact be sufficient to offset the effects they are intended to mitigate
- The mitigation measures are generic – nothing is stated about which measures (or which individual components of the measures) will offset which aspect of the environmental effects, and in the case of oil pollution (risk), how any component of the generic measures will moderate the source-pathway-receptor chain of pollution. Put simply, the documents lack credible detail as to the effectiveness of the measures purported to mitigate or offset the environmental risk. The documentation requires a significantly more detailed list of the specific procedures to be employed from STS best practice and the OSCP, and a full description of how they will work to reduce risk and mitigate adverse effects
- There are conflicting statements (For birds on p28 and fish on p30) as to the potential for spilled oil at the proposed STS locations to enter the Cromarty Firth “proper”. The new location appears to be well within the tidal excursion of the Cromarty Firth, so the possibility of accidentally spilled oil entering the firth should be considered, particularly in view of the important, fragile, European protected (SPA) bird habitats present there. The risks associated with this aspect of oil pollution risk arising from STS operations at the proposed new location should also be compared with the *status quo*, with STS operations taking place within the firth, but with *de facto* availability on site of counter pollution equipment at the Nigg oil terminal

**5.3.3.9 Ballast water:** *“Discharge of ballast water will follow the requirements set out in the BWM Convention. While the BWM Convention is yet to be formally ratified, PoCF suggest implementation of the recommendations set out in the BWM Convention when ballast water is released as part of the STS transfer process. This will ensure that, as a minimum, ballast water is exchanged with at least 95 % volumetric efficiency. The amount of ballast water discharged is recommended to be*

*limited to the minimum essential quantity. Once the BWM Convention is formally ratified the Convention will be enforced within 12 months.”*

While we support the stated aim of reducing and removing INNS and chemicals from ballast water (which we understand in any case to be currently discharged within the Cromarty Firth from a variety of shipping – see section 5.3.3.12 of the application document), it is unclear: what specific elements of the BWM Convention are proposed to be implemented in relation to the new STS location; the mechanism by which they will mitigate adverse environmental effects; or how they will be enforced.

**5.3.3.10** *“The proposed cargo transfers will be similar to previous shipping operations within Cromarty Firth harbour waters.”*

This avoids addressing the fact that the proposal is to carry out an activity in a new location and at up to seven times the current intensity. Although this statement is made under the heading of “Nuisance”, a similar attitude appears to underpin the application documentation as a whole. In fact, the new location for STS makes a difference to the potential environmental effects on birds, marine mammals and coastal habitats, as a consequence of new parameters affecting the likelihood of accidental oil spill, the severity of its consequences, and thus the overall risk. These consequences of this proposed change are not recognised let alone assessed in the application documents, which in turn means that no detailed attention has been paid to the mitigation methods that would be appropriate for new or altered environmental effects arising from the new location.

**5.3.3.12: Cumulative and in combination effects:** *“In-combination effects may occur with a combined risk of oil spill during a proposed cargo transfer and an oil spill from Nigg Oil Terminal. There is also a potential for in-combination effects from an oil spill from Nigg Oil Terminal’s oil pipeline, which comes onshore south of Balintore. However, the likelihood of an oil spill from one of these sources is considered to be very low. Combined with the very low likelihood of an oil spill during a cargo transfer it can be concluded that no in-combination effects from oil spill are predicted.”*

This is an inadequate treatment of cumulative impact.

**5.3.4.1:** *“The application of best practice in STS transfer activities, including STS operation manuals and MARPOL Annex I Chapter 8 (on the prevention of pollution during the transfer of oil cargo between oil tankers at sea) will ensure the risk of an oil spill is minimised.”*

It would have been helpful for consultees to have had some specific explanation of how the main measures and elements of “best practice” work to minimise oil spill risk. As currently drafted, this reference to applying best practice can best be regarded as aspirational, rather than evidential.

*“Only those STS agents approved by PoCF are permitted to supervise STS operations.”*

It would be helpful to have an indication of the approval process, including the minimum criteria that CFPA will require from applicants. For transparency, it would be helpful to have an indication from CFPA as to whether any other arm of PoCF might provide STS services, and in which case how such an approval would be formally vetted.

*“Hoses and fenders will be certified for use and inspected regularly.”*

It would be helpful to have an indication of the schedule/timetable to be adopted.

*“Proposed cargo transfers will not occur outside of the operational constraints (e.g. adverse weather conditions).”*

It would have been helpful here to have had a cross-reference to the relevant information in section 4.1.3 on page 10.

**5.3.4.2:** *“If an accidental oil spill was to take place then application of the OSCP would considerably reduce the environmental effects of a spill. It will minimise the scale and extent of an oil spill.”*

The OSCP is a technical document in its own right. We consider the following section of the application to lack detailed non-technical explanation of how the different elements of the OSCP would in fact minimise the scale and extent of any oil spill, and thus its environmental impact. In particular, as the current application is for a licence to manage STS in a completely new location within CFPA waters, we would have expected here (or elsewhere within the application documents) a clear indication of how the supporting OSCP has changed compared with the previous version, in response to a realistic assessment of oil spill risk at the new location compared with the Nigg oil terminal jetty.

In our view, this requires explanation in order for consultees to comment in an informed manner on whether the proposed new location might be more or less risky because of its location in relation to different receptors (e.g. specially protected bird habitats, or marine mammals), or because of its relative exposure to weather, or because of the relative risks of collision compared with mooring alongside a vessel secured to a jetty. Such a treatment appears to be lacking, and so the application documents fail to meet the underlying requirement and intention of Schedule 2 of the 2010 regulations.

There appear to us to be a number of differences between the lists of oil spill response equipment in the main application report and in the OSCP. These inconsistencies require explanation. It is not clear whether the equipment referred to at the foot of page 41 of the main report is CFPA's or Talisman's. Our understanding is that the equipment located at the Nigg oil terminal is Talisman's, and consequently that it is appropriate for use at that location and that it is not directly in the control of CFPA.

This raises two serious questions: firstly, is the Nigg equipment also suitable for deployment at the proposed new STS location and to what timescale; and secondly, the degree to which CFPA can rely upon its availability to deploy at the proposed new STS location if STS operations are carried on there at the same time as transfers to and/or from the Nigg oil terminal, or alongside the jetty.

We would have wished to see greater clarity about the location(s) and deployment time(s) for the tier 1 and tier 2 equipment referred to on page 42 and stated as being operated by Briggs Environmental. In particular, it is not clear from the application documents how quickly the Briggs tier 1 equipment is capable of being deployed, nor is it clear that its suitability for dealing with up to 6 tonnes of marine gasoil means that it is also suitable for dealing with the medium crude proposed for STS. Again, there appear to be marked differences between the lists of oil spill response equipment specified in the OSCP on the one hand, and the main application document on the other.

### 5.3.5:

There is a circularity of logic in relying on both the “track record of the harbour” and the “likelihood of an accidental spill occurring [being] very low”, the first of these being in large part a consequence of the second. As stated above, we consider the main application document to lack clear explanation of the detailed ways in which specific attributes of “best practice” will minimise the likelihood of an accidental spill – i.e. render an unlikely event even less likely to occur. Similarly, the main application document also lacks a clear and compelling explanation of how the OSCP will minimise the severity of a spill, should one occur. Regrettably, we remain extremely uncertain that the risk of environmental impact (and in particular to European wildlife sites and their qualifying features) can be shown to be acceptably minimised by means of the high level and generic measures referred to in the application documents.

## 6 European sites

**6.2 Potential effects on European sites:** We agree that the three principal elements of STS that could affect European sites can be categorised as: shipping; oil spill; and ballast water.

**6.2.1:** *“The movements and mooring of ships are considered to be part of the normal port operations and there will be no significant increase above previous levels (not exceeding an average of four per calendar month) in port operations or shipping traffic as a result of the proposed cargo transfers. It is not considered that noise from engines, generators and pumps would disturb marine mammals and seabirds.”*

We do not consider either of these statements to be adequately evidenced in terms of the specific locations now proposed for STS, which we understand to be particularly important for marine mammals. In our extensive experience from other sectors with consents requiring the support of similar types of

environmental information as STS (any consent requiring Environmental Impact Assessment – “EIA”), the “considerations” that (1) there will be no significant change in shipping activity in the proposed new location for STS and (2) that noise would not disturb birds or marine mammals need to be supported by evidence on (respectively) (i) current levels of shipping activity and other activity on moored vessels in the proposed location for STS (as opposed to the harbour as a whole) and (ii) scientific knowledge of the distance at which species (and in particular marine mammals) are disturbed by different types of noise from ships and shipping, and the duration of any such disturbance. It is not, in our experience, sufficient for an applicant (or an applicant’s agent or consultant) merely to assert that they do not consider a potential problem to be a problem.

In our view the presence of vessels carrying out STS at the proposed new location raises the question of whether bottle-nosed dolphins that are the qualifying interest of the Moray Firth SAC might be disturbed; in our extensive experience of development casework involving European sites this is a “likely significant effect” that cannot be screened out – and an appropriate assessment is required. Consequently, we cannot agree that: “*The potential for the proposed cargo transfers to cause disturbance above what exists at present is considered negligible and a significant effect on designated sites and protected species is not likely. Therefore, this impact is not considered further.*” We do not consider that this is a safe basis on which to issue an oil transfer licence for the new location.

### **6.3 Screening of designated sites:**

This appears to have been reasonably precautionary, in terms of oil spill and ballast water impacts; we cannot identify additional sites that are not included, but consider that a tier 3 spill could (depending on the time of year) also affect the East Caithness Cliffs SPA. Whether or not the consequences of a tier 3 spill require to be assessed depends in part on whether the likelihood of such an occurrence is measurably increased by undertaking STS at the new location. As explained elsewhere in this response, we do not consider the application documents to contain an adequate assessment of the likelihood or severity of the consequences of different sizes of spill in an adequate range of different conditions.

However, our main concern in terms of the documentation is the treatment of tier 1 and tier 2 spills, which have a considerably greater probability of occurring than a tier 3 spill, which would by definition require a national level response, relying on the national contingency plan. Even with implementation of the national contingency plan, the environmental consequences of a tier 3 spill at the proposed new STS location would almost certainly include significant adverse effects on designated nature conservation sites, among a wide range of impacts. Therefore, it is unfortunate that the application documents fail to describe the ways in which the various “best practice”

referred to will minimise the likelihood of a spill, including one resulting from catastrophic rupture of oil tanks.

While some assumptions may have been taken as read between CFPA, their consultants Intertek, and the MCA, it would have been helpful to have borne in mind that the licence application process is open to public consultation, and that consequently the documentation should be fit for purpose, and therefore with sufficient explanation for reasonably informed members of the public to come to a considered view as to the acceptability of the risks.

#### **6.4 Mitigation measures:**

We note that the list of measures in table 6.4 as mitigating the impact of oil spill is identical to the equivalent list in OIC's application for Scapa Flow, and like that document supported by no further information describing how each measure will in practice mitigate which particular aspect of the risk/impact. While this might arguably have been acceptable for Scapa Flow, where no change was proposed to the oil transfer operations themselves beyond adoption of a new ballast water management plan, it is not adequate for this application, which represents a fundamental change in location, and consequent changes to the level and nature of risk.

Because the significance of the change in location is not acknowledged, there has been no exploration of how that change also changes the risks of different impacts on the various neighbouring environmental receptors, and thus it is impossible to consider whether the mitigation measures listed are appropriate to address the risks arising.

Even if that were clear from the application document (which it is not), the complete absence of detail as to how each measure will in fact mitigate the different elements of risk/impact means that it is also impossible objectively for MCA and the SoS to determine if the mitigation measures are quantifiably adequate, and whether any are missing.

In terms of the treatment of individual sites in Table 6.5, we have the following comments:

Cromarty Firth SPA/Ramsar: *"A south-easterly wind could impact the coastline at the entrance to the Cromarty Firth after 80 minutes. Birds within this area are likely to be significantly impacted by the oil spill."* We do not consider that this scenario is adequately addressed for an spill size in terms of a wind from this direction, particularly as the new STS location appears to lie within the tidal excursion of the firth itself.

*"Application of the mitigation measures will reduce the risk of an oil spill occurring."*: This conclusion requires the demonstrable support of some objective, quantitative analysis.

Culbin Bar SAC: “Application of the mitigation measures will reduce the risk of an oil spill occurring.”: This conclusion requires the demonstrable support of some objective, quantitative analysis.

Inner Moray Firth SPA/Ramsar: “Application of the mitigation measures will reduce the risk of an oil spill occurring.”: This conclusion requires the demonstrable support of some objective, quantitative analysis.

Moray & Nairn Coast SPA/Ramsar: “Application of the mitigation measures will reduce the risk of an oil spill occurring.”: This conclusion requires the demonstrable support of some objective, quantitative analysis.

Moray Firth dSPA: “Application of the mitigation measures will reduce the risk of an oil spill occurring.”: This conclusion requires the demonstrable support of some objective, quantitative analysis.

Moray Firth SAC: “Application of the mitigation measures will reduce the risk of an oil spill occurring.”: This conclusion requires the demonstrable support of some objective, quantitative analysis. As noted elsewhere in our response, we do not agree with the decision to “screen out” disturbance to bottle-nosed dolphins from noise emanating from vessels involved in STS at the new location; we consider that there is a likely significant effect in term of the regulations and that consequently appropriate assessment is required.

**6.6 Screening determination:** “The proposed cargo transfers are not considered likely to have a significant effect on any European sites, either individually or in-combination with other plans or projects, as required under Schedule 1 (1) of the Regulations.”

We cannot agree with this conclusion, or with the formulation here of the term “likely significant effect” from the regulations, where Schedule 1 transposes Article 6(3) and 6(4) of the EU Habitats Directive in relation to licensing STS. In our extensive experience of development casework involving application of the tests set out by that part of the Directive, as implemented by UK consenting bodies in a variety of sectors, there is a likely significant effect (in the sense intended by Schedule 1 of the 2010 regulations), and consequently appropriate assessment is required for at least the following European sites:

- Cromarty Firth SPA
- Inner Moray Firth SPA
- Moray & Nairn Coast SPA
- Moray Firth dSPA
- Moray Firth SAC

*“The potential effects from an unmitigated oil spill was determined to be likely to have a significant impact on a number of designated sites within the area. However, procedures are in place to significantly reduce the likelihood of the accidental discharge of oil. After applying these mitigation measures it can be concluded that the risk of a significant impact is considered unlikely.”*

We accept the principle that appropriate mitigation measures may be taken into account in terms of reducing risk/impact at the screening stage, but only if there is no doubt as to their complete efficacy. In our view in this case there is sufficient residual doubt for a more detailed examination to be made of the capability of the specified measures to mitigate risk/impact sufficiently for it to be certain that there will be no adverse impact on the integrity of the European sites listed above. The more sophisticated level of analysis required is that of “appropriate assessment” in the sense of Schedule 1 of the regulations. The responsibility for carrying this out is that of MCA and ultimately the SoS.

It is the responsibility of the applicant to ensure that MCA and the SoS have sufficient information to make such an assessment. Our very clear recommendation, founded on many years’ experience commenting on development proposals with the potential to affect European wildlife sites, is that the information so far provided by CFPFA falls well short of the standard required to enable the necessary assessments to be carried out with the rigour required to implement the regulations.

We consider the question of ballast water impacts to be more complicated, but cumulatively, taking other ballast water discharges into account, we accept the principle that the volume of discharge at the proposed STS location may be relatively small compared with all other discharges in CFPFA harbour waters. However, we consider the amount of information provided to arrive at an informed conclusion to be lacking.

It is conceivable that moving all STS operations from the Nigg oil terminal jetty to the proposed new location could reduce the risk of ballast water impacts on some environmental receptors. However, it is not clear that this is in fact what is proposed by CFPFA, or whether STS at the new location will be in addition to that already licensed. The application is therefore fundamentally flawed in terms of providing clearly the information required by Schedule 2 of the regulations, which is intended to transpose and apply to STS licensing the requirements of EU EIA legislation, to a similar standard as applied to other sectors

## **7.5 Residual effects:**

The “reasons” given as a bulleted list in the final paragraph (and presumably conclusion) of the application document are plausible assumptions, rather than reasons, as the report contains no analysis or evidence that demonstrates how they will mitigate the underlying risks associated with carrying out STS at that location, nor is any comparison made with current oil handling activities either in the CFPFA harbour area or elsewhere.

## **Appendix A – Environmental Baseline**

This appendix conspicuously lacks any description of the current levels of STS and oil transfer activity in the CFPA harbour area, and no assessment of current levels of oil spill risk. Both are required in order to assess the additional impact of the activities currently proposed, and to carry out cumulative risk and impact assessments.

## **Appendix B – Oil Spill Modelling**

### **B.4 Model set-up**

#### **B.4.2 Oil Spill Mass**

*“The assessment considered a reasonable worst case discharge that could occur during STS oil transfer operations. During a previous OTL application, discussions were held between the Maritime & Coastguard Agency (MCA) and Scottish Natural Heritage (SNH) regarding the operational risks of oil spill during STS transfer. These concluded that a 1,000 kg (1 tonne) spill is a reasonable worst case and could result from a fractured transfer hose.”*

We do not regard this treatment as adequate. It is predicated on a false assumption that the only cause of oil spill during STS operations is a fractured hose, and that in such an event transfer operations could and would be shut down instantaneously. As noted elsewhere, the main report lacks any description of how the high level programmes adopted as mitigation actually limit the impact of adverse effects potentially arising from STS operations. This is a case in point. We would expect transfer hoses to be equipped with shutoff valves that comply with best practice guidance, allowing transfers to be stopped within a short amount of time (greater than 0 seconds). However, this is not described anywhere in the documentation. Assuming that the volume of oil contained with transfer hoses at any one time is approximately 1 cubic metre, the potential amount of oil lost from a fractured hose will be 1 tonne plus {rate of transfer [volume/unit time] x [the length of time taken to effect shutdown]}.

However, a fractured hose is not the only reasonably foreseeable incident arising from STS that could lead to oil spillage. It is widely acknowledged that the riskiest stages of STS operations occur not during the transfer stage, but during berthing and unberthing, when vessels may collide. The application documents should include a realistic description of the hazards associated with each part of the operation, their potential consequences, along with their likelihood. So, in the event of a collision arising from berthing and/or unberthing, it would be important to know (a) the worst reasonably possible consequence [e.g. tank on one vessel ruptured], (b) the quantity of oil potentially involved, (c) the likelihood of such an occurrence, and (d) the specific mitigation measures in place to reduce either (b) or (c).

Based on previous STS applications, we would consider a realistic less-than-catastrophic “worst case” spill mass to be 300 tonnes (Appendix D OSCP page 6 para 2, Table 2.5).

*“It should be noted that the purpose of the modelling assessment is to determine the where the spill may be advected to, rather than attempting to predict the concentration of the oil upon impact. Therefore, the actual mass of oil is not critical to the prediction.”*

We do not accept this assumption. The mass of oil spilled will tend to determine the potential size of any slick formed in the time (minutes) immediately following the spill. The initial process of spreading is different from the longer-term process of bulk-movement (advection) of the oil mass. Thus, the mass of oil will determine the size of the initial polygon from which subsequent advection is modelled. We accept that weather and sea conditions tending to lead to the most rapid initial spread of oil might not also be those necessarily leading to the most rapid subsequent transport/advection away from the spill site; and that some specific “best practice” measures might tend to limit the scale of initial spreading. However, these considerations need more detailed quantitative treatment and modelling, in order to derive first a realistic assessment of risk (in terms of both likelihood and severity) and then a comprehensive and appropriate suite of specific mitigation measures. These are currently lacking.

**B.4.5 Tide Conditions:** *“All releases were modelled as occurring at High Water (HW) on a mean spring tide (Invergordon). This was selected as a spring tide will produce greater advection of the slick than a neap tide, thereby minimising the time to impact and potentially impacting a larger area.”*

No explanation is for the selection of a single tidal state of high water. Given the location of the proposed new STS sites within the tidal excursion of the Cromarty Firth itself, we consider it important to identify (by using the model) the tide and wind conditions presenting the greatest risk of oil transport to different environmental receptors. Thus, we would expect the greatest risk of oil incursion into the Cromarty Firth to occur at some stage before high water, when the tide is in flood. These may not necessarily be the same tidal conditions posing the greatest risk of oil transport to receptors to the south and east of the proposed new STS locations (including Whiteness Head and the Culbin Bars). A greater number of scenarios requires to be modelled, to take account among other things of a wider range of tidal conditions.

**B.4.6 Wind Conditions:** *“ Model wind conditions were derived from the analysis of Metocean statistics from the Met Office WAVEWATCHG III™ wave model archive. These data originate from the 8km resolution European model domain, which covers the period 1st January 2001 to 31st December 2010 in hourly intervals. The yearly mean wind speed from all directions was used during the modelling to ensure consistency between scenarios. The wind directions applied in the models were selected to correspond to: the yearly predominant; towards the nearest northern shore; and towards the nearest southern shore.”*

No explanation is given for the selection of a single wind speed (stated as 10 knots in table B.4) in combination with three directions. It is important that mitigation measures are identified in the knowledge of a reasonably realistic worst case scenario. Although increasing wind speed can also lead to sea states likely to assist break-up of oil slicks, it will also tend to cause swifter movement of slicks. Section 4.1.3 of the main report states that transfers may take place in wind speeds up to 27 and/or 35 knots. In our view a greater number of scenarios needs to be modelled, including wind speeds up to 27 and 35 knots, under a range of tide conditions and for a range of realistic spill sizes. Once the impact of these scenarios has been assessed, it would be appropriate to put each into the context of its likelihood, in order to determine the overall level of risk, and to assess the timescales within which it may be necessary to deploy response measures and equipment in order to mitigate the severity of impacts on shoreline receptors.

### **B.9.1 Background**

*“The International Convention for the Control and Management of Ships Ballast Water and Sediments (BWM Convention), was adopted by consensus in February 2004 at the IMO. The BWM Convention will come into force 12 months after ratification by 30 States. CFFPA wishes to operate in accordance with the BWM Convention.”*

No information is given as to how CFFPA propose to enforce this for vessels wishing to carry out STS.

### **B.13.2 Model Run Period (and B15.2 In Combination Discharge)**

*“All discharges were tracked for two months (60 days), four spring-neap tidal cycles) in order to fully assess the transport pathways. This is considered a conservative period due to the likelihood of high mortality rates once released to the environment.”*

The cumulative assessment needs to consider the effect of up to 4 STS operations per month, plus a realistic number of other discharges of ballast water. The modelled maps will overlap in time.

### **B.13.3 Wind Conditions**

*“The model was run under calm conditions (i.e. no wind)”*

No explanation is given for this, as opposed to running the model for (say) 60 days at average wind speed and direction, given that some INNS might be present in water close to the surface, and thus influenced by wind as well as tide.

### **B.14.2 In-combination Discharge**

*“For the in-combination assessment of discharge of ballast water from vessels at Nigg Oil Terminal a volume of 35,000 tonnes was released over a 12 hour period at the Nigg Oil Terminal jetty. Two scenarios were run for the Nigg Oil Terminal ballast water release: one assuming no exchange or treatment of the ballast water and one*

*assuming discharge of exchanged ballast water, in accordance with the IMO BWM Convention (see section B.9.3).*

*“In addition at Invergordon Service Base, Admiralty Pier, Queens Dock, Phase 3 Berth and Saltburn Pier a small volume of 3,000 tonnes was released over a two hour period at each location. This represents a worst case in-combination discharge of ballast water from smaller vessels operating within the Harbour waters. Simultaneous discharge at all these locations in the harbour is unlikely to occur in reality. For these discharges ballast water release was modelled assuming no exchange or treatment.*

*“The model was run under calm (no wind) conditions to provide the worst case scenario in terms of ballast water dilution (i.e. low dilution).”*

Risk of INNS impacts may not necessarily be in proportion to “dilution”, as by definition “species” are not inert, and some have the ability to propel themselves in addition to being transported. It would be helpful too to have a qualitative assessment of (a) the relative risk (impact and likelihood of transport) of different species, and (b) the most appropriate preventative measures. It would be helpful too to gain an understanding of CFWA’s overall strategy for preventing the spread of INNS in ballast water to sensitive environmental receptors in and adjacent to harbour waters.

## **Appendix C Screening of Designated Sites**

We have the following comments:

**Cromarty Firth SPA:** significant effects could arise indirectly from ballast water (e.g. unpalatable INNS out-competing palatable native prey species for SPA-qualifying birds)

**Dornoch Firth SSSI:** Approximately 32 km from the STS location by shortest surface distance (as opposed to 16 km direct)

**Dornoch Firth & Loch Fleet SPA:** significant effects could arise indirectly from ballast water (e.g. unpalatable INNS out-competing palatable native prey species for SPA-qualifying birds)

**Inner Moray Firth SPA:** significant effects could arise indirectly from ballast water (e.g. unpalatable INNS out-competing palatable native prey species for SPA-qualifying birds)

**Loch Fleet SSSI:** 37 km from STS locations by surface

**Loch Ruthven Ramsar:** assessment should be the same as for Loch Flemington SPA; Loch Ruthven is SPA as well as Ramsar

**Moray & Nairn Coast SPA:** significant effects could arise indirectly from ballast water (e.g. unpalatable INNS out-competing palatable native prey species for SPA-qualifying birds)

**Moray Firth dSPA:** significant effects could arise indirectly from ballast water (e.g. unpalatable INNS out-competing palatable native prey species for SPA-qualifying birds)

**North Sutherland coastal islands SPA:** 200 km by surface from STS locations

**Priest Island SPA:** 340 km by surface from STS locations

**Wester Ross lochs SPA:** no surface connection with STS locations.

## Appendix D Oil Spill Contingency Plan

**Table 2.5:**

An explanation is needed as to why STS has been rated as having a maximum potential oil spill size of only 1 tonne. If this relates to the transfer process itself only, then other rows of this table apply to STS operations in the round, including “operational cargo loss” and “worst case loss of cargo tank”.

**2.2.4.1 Bunkering operations:** *“Size of hose and contents liable to be lost in the event of a Bunkering Hoses used are 4” diameter and 20 m long, with an average content of 200 litres. The loading rate is 2000 litres per minute, therefore the maximum amount of bunkers likely to be spilled due to overflow or failure would be approximately 3,500 litres. In the case of coastal tankers loading/discharging, then the hose is 6” diameter and 40 m long, with a discharge rate of 350 tonnes per hour. This would give a maximum likely spillage of gas oil in event of total hose failure of approximately 6 tonnes.”*

This contrast with the much smaller maximum size of spill stipulated for STS of 1 tonne. No explanation is given for this apparent discrepancy, in spite of the basic similarities between bunkering and STS operations.

**2.2.6 Overall conclusion:** *“... although there is significant tanker movement within the port limits, it is considered that this is well controlled and there are adequate procedures in place to ensure that the chance of an operational spill is considered to be low.”*

We agree the likelihood of an operational spill is low, but observe that nevertheless it is greater than zero, and needs to be realistically prepared for through the OSCP.

**2.5 Probable movement & fate of oil:** *“Due to the enclosed nature of the Firth, oil will strand on the coastline rapidly after release from almost any location.”*

This section does not appear to have been updated to reflect the new risk of accidental oil spillage at the proposed new STS location outside the Cromarty Firth proper.

## **3.2 Response strategies**

### **3.2.1 Overall response strategy**

**Mechanical containment & recovery** *“This is the primary strategy for clean-up within the Firth. Every effort will be made to contain and recover spilled oil close to the source before spreading and thinning has taken place. This is especially important, as there are few sites where measures can be employed to protect the extensive sensitive areas within the Firth.”*

We agree that this is the correct strategy. Therefore it is important that the STS application documents show clearly that the response equipment available and procedures in place are capable of dealing with a spill at the proposed new STS location, as well as a spill within the enclosed firth itself.

This requires a comparison between the current OSCP and the proposed new OSCP, with an explanation of what has changed and not changed, and an explanation of why the new measures are adequate to deal with the new and previously existing risk, in combination. The correct place for such an explanation would be in main report, but it is currently lacking.

### **3.3 Response techniques:**

There appear to be significant inconsistencies between the various lists of equipment listed in this section and those specified in the main report, e.g. at 5.3.4.2 on page 41. This does not inspire confidence that the new OSCP has been properly updated to reflect the new STS proposal, nor that the STS application ES correctly reflects the oil spill response techniques and equipment actually available.

RSPB Scotland

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