THE MOX PLANT CASE

IRELAND

v.

UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

REJOINDER OF THE UNITED KINGDOM

24 APRIL 2003

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CONTENTS

CHAPTER 1

INTRODUCTION

1.1 This Rejoinder is submitted by the United Kingdom of Great Britain and Northern Ireland ("the United Kingdom") in accordance with the Rules of Procedure approved by the Tribunal on 2 July 2002 and Order No. 2 of 10 December 2002. It responds to the Reply submitted by Ireland on 7 March 2003.

A. SCOPE AND OUTLINE OF THE REJOINDER

1.2 This Rejoinder does not purport to deal with each and every one of the allegations that Ireland makes in its Reply. For the avoidance of doubt, the United Kingdom rejects all such allegations (save as expressly admitted). The aim of the Rejoinder is to identify and focus on the key issues in dispute and to highlight the central flaws in Ireland's contentions.

1.3 Following brief introductory observations made in Section B below, there are two Chapters on the facts. *Chapter 2* identifies the key issues in the Dispute. In doing so, it considers the four issues that Ireland has isolated in Chapter 2 of its Reply, and focuses on the one key issue that Ireland is so keen to avoid – whether there is any risk that the MOX Plant will have any significant impacts on the marine environment such as to found Ireland's various allegations of breach of the United Nations Convention on the Law of the Sea ("UNCLOS"). It is shown that there is no such risk – and also that it is quite unclear that Ireland now contends otherwise. *Chapter 3* responds to the contentions made in respect of the authorisation of the MOX Plant at Chapter 3 of the Reply. This Chapter considers Ireland's focus on non-UNCLOS instruments, notably the Sintra Statement issued at the ministerial meeting of the OSPAR Commission in July 1998.

1.4 Chapters 4 and 5 consider issues of jurisdiction and applicable law. *Chapter 4* further explains the United Kingdom's jurisdictional objection based on the character of UNCLOS as a mixed agreement. In accordance with Annex IX to UNCLOS, it is for the European Community, rather than its Member States, to exercise rights and perform obligations arising from provisions of UNCLOS on which Ireland relies. *Chapter 5*

addresses Ireland's contentions on applicable law and related questions of jurisdiction. It explains that neither article 293 of UNCLOS, nor any other provision therein, enlarges the jurisdiction of this Tribunal so as to permit the application by this Tribunal of a broad series of conventions, international instruments and primary rules of customary international law, and European Community law, as opposed to the provisions of UNCLOS itself.

1.5 Chapters 6, 7, and 8 examine respectively Ireland's further contentions on breach in relation to assessment of potential effects on the marine environment (*Chapter 6*), co-operation (*Chapter 7*), and pollution (*Chapter 8*). *Chapter 9* considers Ireland's contentions on remedies. This is followed by the United Kingdom's Concluding Submissions.

1.6 In the Annexes to this Rejoinder, there are further reports by Dr Hill (on oceanography), Dr Hunt (on impacts of radioactivity on the marine environment), Mr Parker (on environmental regulation and radioactivity from the Sellafield site), Dr Preston (on the health risks of radiation), and Dr Woodhead (on impacts of radioactivity on marine biota). In response to issues raised in the Reply, the United Kingdom has also commissioned a report from Dr Simon Bouffler of the National Radiological Protection Board (NRPB) on low dose radiation, and a report from Professor Steven Jones of Westlakes Scientific Consulting on radiation doses to marine organisms from Sellafield discharges and from natural sources. Finally, further statements are given by two BNFL witnesses, Mr Clarke and Mr Rycroft.[1]

B. BRIEF INTRODUCTORY OBSERVATIONS

1.7 *Applicable law*: The sources of the legal obligations that Ireland relies upon have become ever broader – most recently drawing in the London (Dumping) Convention, hitherto referred to only in passing. At the same time, Ireland has moved ever further away from UNCLOS, and the primary basis for its case is now an alleged failure on the part of the United Kingdom to comply with the Sintra Statement of July 1998. In this Statement, the Ministers and Member of the European Commission, meeting within the

[1] As with the Counter-Memorial, other annexes are included but have been kept to a minimum, and simple references have been thought sufficient in many cases; where possible references have been made to the annexes to the preceding pleadings to avoid duplication. Full texts of documents will of course be supplied should Members of the Tribunal so indicate.

framework of the OSPAR Commission, said they would ensure "discharges, emissions and losses of radioactive substances are reduced by the year 2020 to levels where the additional concentrations in the marine environment above historic levels, resulting from such discharges, emissions and losses, are close to zero". Such allegations are not within the jurisdiction of this Tribunal. Moreover, the OSPAR Commission is actively seised of the issue of how this commitment is to be achieved and the OSPAR Contracting Parties' progress and strategies to date.[2]

1.8 *The temporal element*: Even leaving aside the obvious issues of jurisdiction and applicable law that Ireland's allegations in respect of the Sintra Statement raise, it is evident that such allegations are premature. Ireland has also now built a substantial part of its case on the United Kingdom's Strategy for Radioactive Discharges 2001-2020 ("the Strategy 2001-2020"), which was published in July 2002. This of course post-dates the commencement of these proceedings. At the opposite end of the spectrum, Ireland continues to allege that THORP, which has been operating since 1994, has not been the subject of an environmental impact assessment. The provisions of UNCLOS do not bind the United Kingdom in relation to any act before 24 August 1997. The Dispute before the Tribunal crystallised at the latest on the date of the institution of proceedings, that is, 25 October 2001 when the Statement of Claim was lodged.[3] Notwithstanding Ireland's willingness to stray either forwards or backwards in time, the Tribunal is properly concerned only with the application of UNCLOS to the conduct of the United Kingdom in between these two dates.

1.9 *The scientific and technical facts and the MOX Plant*: Ireland seeks to steer the Tribunal away from any consideration of the scientific and technical facts, notwithstanding the fact that this Dispute must inevitably centre around the question whether there is any risk that the MOX Plant will have any significant impacts on the marine environment. Ireland's reticence here is a reflection of the weakness of its factual case: it cannot be Ireland's case "that there are proven and serious detrimental effects on

[2] It is not the view of the relevant OSPAR body, the Radioactive Substances Committee, that the United Kingdom is failing to meet commitments in respect of the Sintra Statement. See further at paragraph 3.24 below.

[3] See Counter-Memorial, paragraphs 1.42-1.44.

the biota of the Irish Sea", and Ireland now accepts this.[4] At the same time, the connection between Ireland's underlying claims and the subject-matter of this case, the MOX Plant, becomes ever more tenuous. In response to the evidence of the negligible impacts of the MOX Plant, Ireland's case has gone through something of a metamorphosis. Its focus has shifted from the MOX Plant to THORP, and at points now includes even wider aspects of operations at the Sellafield site. The evidence shows that neither the operation of THORP nor operations at the Sellafield site as a whole have or will have any significant impacts on the marine environment. However widely Ireland seeks to cast its net, there will be this answer. Nonetheless, Ireland's case is confined to the authorisation and operation of the MOX Plant and the consequences that flow therefrom: this is the subject-matter of the Dispute over which the Tribunal has jurisdiction.

Note on Annexes and Confidential Material

1. The United Kingdom's annexes are contained in eight volumes (Volume I to VI with the Counter-Memorial and Volumes VII and VIII with the Rejoinder) and are numbered sequentially from **Annex 1** to **Annex 51**. References in this Rejoinder to a United Kingdom annex take the form of a simple reference (in bold) to the annex by its number.

2. The passages in Chapter 7 that are struck through are confidential and should be omitted when the Rejoinder is made public. There is one confidential annex (**Annex 51**), which is not included in Volumes I to VIII: this has been supplied separately under cover of a letter from the Agent of the United Kingdom dated 24 April 2003.

[4] Reply, paragraph 2.77.

CHAPTER 2

THE KEY ISSUES IN DISPUTE

2.1 In Chapter 2 of its Reply, Ireland seeks to refine the Dispute down to four issues which, it is said, are all that the Tribunal needs to address in order to resolve the Dispute – in Ireland's favour. This reformulation of Ireland's case is a reflection of the very obvious and real difficulty confronting Ireland: that, however attractively Ireland's legal arguments are formulated, they lack any factual basis. The case concerns alleged pollution caused by radioactive discharges from the MOX Plant, while the facts show, for example, that "the assessed dose due to gaseous and liquid discharges from the MOX plant is less than one millionth of that due to natural background radiation".[1] Ireland has not – and cannot – challenge such basic facts. Indeed, it now appears to be common ground that the radiation doses from the MOX Plant are of negligible radiological significance.[2]

2.2 Thus, instead of grappling with the United Kingdom's detailed Chapter on the scientific and technical facts (Chapter 3 of the Counter-Memorial), Ireland has not responded at all to that Chapter, and has chosen instead to explain to the Tribunal in several different ways why the underlying facts do not need to be addressed. There are two immediate points:

1. Ireland's case, in the words of paragraph 2 of its Amended Statement of Claim, concerns (a) pollution of the sea arising from increased discharges of radioactive wastes arising directly and indirectly from the MOX Plant and (b) the risks arising from movements of material to and from and storage of material at the MOX Plant. It is not possible for Ireland to succeed unless it shows the existence as a matter of fact of (a) such pollution and (b) such risks.
2. Ireland's failure to respond at all to the United Kingdom's case on the scientific and technical facts is an obvious indication of the weakness of Ireland's case. This provides further reassurance for the Tribunal, to go alongside, for example, the Article 37 Opinions of the European Commission which conclude (separately) in respect of both the MOX Plant and THORP

[1] United Kingdom Environment Agency's Proposed Decision of October 1998, at paragraph A3.14: Memorial, Volume III, Part Two, p. 385.
[2] See Reply, paragraph 3.47.

that their operation "is not liable to result in radioactive contamination significant from the point of view of health, of the water, soil or airspace of another Member State".[3]

2.3 Section A of this Chapter addresses each of Ireland's four "salient issues" in turn. The truly central issue in this case – whether there is any risk of any significant impacts to the marine environment such as to found Ireland's various allegations of breaches of UNCLOS – is then re-visited in Section B below. (Of necessity, this reconsideration is brief – there is only a limited amount to respond to, given Ireland's failure to respond to the initial consideration of the facts as set out in Chapter 3 of the Counter-Memorial.)

A. IRELAND'S FOUR SALIENT ISSUES

2.4 The United Kingdom's responses to each of the four "salient issues" formulated by Ireland are, in summary, as follows:

1. *The alleged MOX/THORP link*: This issue is relevant only as the second in a series of three questions which the Tribunal must address: (i) whether the MOX Plant leads to any risk of any significant impacts to the marine environment; (ii) whether there are any increased THORP discharges that can be said to be consequent upon the commissioning of the MOX Plant; (iii) if so, whether such increased THORP discharges lead to any risk of any significant impacts to the marine environment. The answer to the first question is plainly 'no', hence Ireland's focus on the issue of the alleged link with THORP. However, as the third question on significant impacts is never properly addressed by Ireland, and must also be answered in the negative,[4] it is difficult to see where this focus leads. In any event, despite the complexities that Ireland seeks to introduce in relation to the second question, the answer is simple. There is no increased operation of THORP consequent upon the commissioning of the MOX Plant. Such increased operation is dependent on (i) demand (which is unlikely to exist according to Ireland), and (ii) a decision by the United Kingdom, which will be taken only if increased operation is consistent with the United Kingdom's environmental objectives and international obligations and after consultation, in which Ireland would be invited to participate.

[3] See Counter-Memorial, paragraphs 2.7 and 2.20.
[4] See Counter-Memorial, paragraphs 3.27-3.37.

2. *Pollution within the meaning of UNCLOS*: This issue is relevant only as the first of two issues that must be addressed for Ireland to succeed on its case on pollution: (i) it must show that the discharges from the MOX Plant and any increased discharges from THORP are "pollution" within the UNCLOS definition; (ii) it must show that there are substantive breaches of the various pollution provisions of UNCLOS which it has brought into play. Ireland does not succeed simply by showing "pollution". In any event, as the United Kingdom has shown, the relevant discharges do not constitute "pollution".

3. *The alleged need to resolve scientific controversies*: While it asserts that there is no need for the Tribunal to resolve scientific "controversies", Ireland in fact steers the Tribunal away from all the scientific and technical facts. It appears strange that a claimant should seek to establish a tribunal with jurisdiction over a dispute, and then contend that the greater part of that dispute is in effect non-justiciable. That is commonly the response of a respondent. The true position is that in order to determine Ireland's allegations of treaty breach by the United Kingdom, the Tribunal must decide whether e.g. the MOX Plant "may cause damage by pollution" (article 194(2) of UNCLOS) or whether the United Kingdom had reasonable grounds for believing that planned activities might "cause substantial pollution of or significant and harmful changes to the marine environment" (article 206 of UNCLOS). This requires a determination of the facts (which is part of the function of any domestic or international tribunal). In fact, given the prior involvement of bodies such as the European Commission, and the extensive study of impacts in this area in the regional (OSPAR), European and domestic context, the Tribunal is faced with remarkably little controversy when it comes to deciding these issues.

4. *Radioactive discharges or radiation dose*: Finally, Ireland seeks to contrast (i) the emphasis in UNCLOS on preventing harm to living resources and marine life as well as to humans with (ii) an alleged emphasis in the United Kingdom's case on impacts, i.e. radiation doses, to humans alone. The answer to this is that the approach of the United Kingdom is consistent with international approaches to radiological protection. This is not to say that the comparison that Ireland draws is either appropriate or correct. The measurement (in becquerels) of radioactive emissions by reference to discharges alone gives an incomplete picture: different radioisotopes have

different half lives and are of varying levels of harm to human and other biota. Hence, it is standard to measure impacts in terms of radiation doses received, whether to humans (measured in sieverts) or to humans and other biota (measured in grays). The United Kingdom in its Counter-Memorial has been careful to give the complete picture, and has addressed both the MOX Plant and THORP in the context of both discharges and doses. This is no less true simply because Ireland has declined to deal with the detail of the United Kingdom's case on the scientific and technical facts.

2.5 The four issues are considered further below.

(i) The Alleged MOX/THORP Link

2.6 The point has already been made that Ireland's focus on the alleged link between the MOX Plant and THORP bypasses one vital question (whether the MOX Plant leads to any risk of any significant impacts to the marine environment) and presupposes an answer in Ireland's favour to the further relevant question (whether increased THORP discharges lead to any risk of any significant impacts to the marine environment).[5] The fact that Ireland now bases its case to such a degree on an alleged link between the commissioning of the MOX Plant and increased operation at THORP (leading it is said to increased THORP discharges) is an acceptance of the weakness of Ireland's original case, which took as its subject-matter the MOX Plant alone. However, it must be made clear at the outset that, as for the MOX Plant, there is no risk of significant impacts to the marine environment arising as a result of operation of THORP. As explained in the Counter-Memorial, the discharges from THORP are very small, and the radiation doses from THORP are equivalent to less than one half of one per cent of natural background radiation.[6] They fall easily within the applicable limits. Thus, although Ireland's case on the MOX/THORP link is considered below, it remains unclear why Ireland considers that this issue is of such importance.

2.7 In its Explanatory Note of 21 March 2002, Ireland explained that its claim "is not confined to the authorisation and operation of the MOX plant" but "encompasses also the consequences that flow from the establishment and operation of the MOX plant,

[5] Cf. Counter-Memorial, paragraphs 3.27-3.37.

[6] See Counter-Memorial, paragraph 3.36. A detailed schedule of actual and projected discharges from the MOX Plant and THORP (including consequential additional discharges from THORP downstream plants) is at Table 3 to the report of Professor Jones **(Annex 39)**.

including in particular *the consequences resulting from intensification of use of the THORP plant as a consequence of the commissioning of the MOX plant*".[7] Broken down into its constituent elements, Ireland's pleaded case in respect of THORP therefore requires (i) an intensification of the use of THORP that is (ii) a consequence of the commissioning of the MOX Plant and (iii) results in a consequence (presumably a damage) in respect of which Ireland claims.

2.8 This case necessarily fails because of the following facts:

1. No additional volumes of spent fuel have been committed to reprocessing at THORP since 1997, which is four years prior to the authorisation of the commissioning of the MOX Plant. Reprocessing of the fuel already committed is expected to occupy THORP for several years from now.

2. The question whether there will be any further contracts, and therefore an increase in the total volume of spent fuel to be reprocessed at THORP, is a matter of speculation. According to the United Kingdom's evidence, the position is uncertain.[8] According to Ireland's evidence in the OSPAR arbitration, the position is that such contracts are at best unlikely to be concluded. In the words of its expert, Mr MacKerron: "It is therefore clear that on market grounds there is no current prospect of further reprocessing contracts for either BNFL or Cogema".[9]

3. Moreover, even if Ireland's earlier evidence is wrong and there is demand for reprocessing at THORP, the United Kingdom has stated in its Government White Paper, *Managing the Nuclear Legacy*, that any proposals that might in the future be brought forward for new contracts for reprocessing at THORP, or for modification of existing contracts so as to reprocess further materials, will require the Secretary of State's approval. The proposals would be reviewed in detail and would only receive approval if the contracts were considered to be

[7] Explanatory Note of 21 March 2002, first paragraph (emphasis added): Memorial, Volume III, Part One, p.27.
[8] See first statement of Mr Rycroft at paragraph 17 (**Annex 17**).
[9] See Mr MacKerron's first report at paragraph 1.3.29, and also at paragraph D.5.3: "Only this last factor – political commitment to reprocessing – can plausibly lead to any future reprocessing …": Memorial, Volume II, Appendix 10, pp. 456 and 517. See also Mr MacKerron's second report (paragraph 1.4.2) at Memorial, Volume II, Appendix 11, p. 528: "NERA analysis shows that it is not possible to construct credible future market scenarios which accommodate more than a very limited number of reprocessing contracts with Japanese utilities, and even here the prospects are slight". (Mr MacKerron is a consultant at NERA, which stands for National Economic Research Associates.)

inter alia "consistent with the UK's environmental objectives and international obligations".[10] No decision to authorise further reprocessing at THORP would be taken without consultation, in which Ireland would of course be invited to participate.

2.9 These facts confront Ireland with a seemingly irremediable difficulty: without a decision having been made to allow increased operation at THORP, it cannot be said that there is any internationally unlawful conduct in respect of such increased operation.[11] In short, there is no actual intensification of the use of THORP in prospect, let alone an intensification that can be characterised either as a consequence of the commissioning of the MOX Plant or as resulting in some damage in respect of which Ireland may bring a claim.

2.10 Against this background, Ireland has substantially expanded its case on the MOX/THORP link in its Reply. Its case is now based on the concepts of intent and foreseeability, with a particular emphasis on the latter.[12] Ireland says that, if it was intended or foreseeable that the operation of the MOX Plant would lead to an increase of discharges from THORP above the level that would have occurred had the MOX Plant not been in operation, those additional discharges are as a matter of law consequences of the operation of the MOX Plant.[13] The basis for this is the contention that, in international law, a State is in principle responsible for those injuries that are the foreseeable or proximate consequences of its actions.[14]

2.11 The concepts of intent and foreseeability, which scarcely featured in the Memorial, now inform every aspect of Ireland's case. As will be seen below, Ireland misunderstands and misapplies both these concepts.

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[10] Memorial, Volume III, Part Two, pp. 324-325, paragraph 5.10.

[11] E.g. paragraph (3) of the introductory Commentary to Part One, Chapter III (Breach of an international obligation) of the ILC's draft articles on Responsibility of States for internationally wrongful acts: "The essence of an internationally wrongful act lies in the non-conformity of the State's actual conduct with the conduct it ought to have adopted in order to comply with a particular international obligation." See also article 12 and the Commentary thereto: Report of the International Law Commission, Fifty-third Session (2001), pp. 123-133.

[12] E.g. Reply, paragraphs 2.13-2.14. For the record, the United Kingdom formally objects to any amendment to or expansion of Ireland's case at this late stage.

[13] Reply, paragraph 2.16.

[14] Reply, paragraph 2.14.

(a) Intent

2.12 It is a basic principle of most systems of municipal law that a defendant is not liable for all the consequences of a wrongful act that is tortious or in breach of contract. Liability is limited by a need to establish causation which, as discussed further under sub-section (b) below, generally requires that principles of remoteness such as foreseeability be satisfied. However, if the consequences of the wrongful act were intended by the defendant, the claimant will generally recover in respect of such consequences. The problem for Ireland nonetheless remains: this is not a case where a wrongful act has led to any consequences, or where a claimant has suffered any loss.[15] Ireland's case is in the abstract: it is said that it was intended that there be increased operation at THORP as a consequence of the operation of the MOX Plant and that, in context, this gives rise to the breach of UNCLOS. There are three further problems with this line of argument:

1. The treaty provisions on which Ireland relies in respect of the MOX Plant might give rise to a right of action in respect of intended events concerning THORP. In fact, they do not. The closest provision to Ireland's case in this respect is article 206, which creates obligations of assessment in relation to the potential effects of "planned activities". Whilst a "planned activity" is a different threshold to an "intended activity", in either case the threshold is not met in respect of any increased operation of THORP.

2. The intent on which Ireland builds this part of its case is lacking. For example, the linkage between the MOX Plant and THORP was something that was expressly considered by the relevant planning authority, Copeland Borough Council, in the context of the environmental assessment of the MOX Plant. However, it concluded: "In practice THORP will operate with the same environmental effect with or without MOX".[16] In other words, there was no intent that the MOX Plant should lead to further emissions from THORP. What is striking is that this was not merely a perfectly reasonable conclusion to reach at that time but remains precisely the case today. In the light not least of the Government White Paper referred to in paragraph 2.8 above, it is difficult to see how the United Kingdom could have been clearer that there are currently no proposals for new contracts for THORP and, if in the future any

[15] It is recalled that an intent to act in a certain and wrongful way, however clearly this may manifest itself, is not equivalent to a wrongful act. See, *Gabcíkovo-Nagymaros Project*, ICJ Reports 1997, p. 7 at p. 54 (paragraph 79).
[16] Copeland Borough Council report of 22 February 1994, paragraph 3.7 (**Annex 21**).

such proposals were brought forward for the Government's approval, this would be a matter for future review and decision.

3. Ireland's argument anyway assumes that the operation of THORP has taken place in a regulatory void. For example, Ireland invokes article 207(2) of UNCLOS and appears to contend that the obligation to take other measures necessary to prevent, reduce and control pollution extends to all intended (and foreseeable) consequences.[17] Yet the operation of THORP is subject to its own detailed regulatory regime. In order to succeed on this case, Ireland would have to show that the measures taken specifically with respect to THORP were inadequate as a matter of article 207(2). This it does not and cannot do.

(b) Foreseeability

2.13 As has already been noted, as a matter of municipal law, a defendant's liability for a given wrongful act is generally limited by principles of remoteness, one of which is commonly a foreseeability test. Thus, although it may be said that a given loss would not have occurred but for the defendant's wrongful act, the claimant will not be able to recover in respect of that wrongful act other than in respect of damages that were foreseeable. This same limit on the recovery of damages from a State that is responsible for a wrongful act is being developed as part of international law. In this respect, reference may be had to the Commentary to article 31 of the ILC's draft articles on State Responsibility, which Ireland invokes in support of its thesis.[18] What the Commentary

[17] Reply, paragraph 2.15. See also Reply, paragraph 8.62, where Ireland says that it was intended that that the authorisation of the MOX Plant would give rise to increased operations at THORP and these should have been taken into account in authorising the MOX Plant.

[18] Commentary to article 31 of the ILC's draft articles on State Responsibility, paragraph (10) (footnotes omitted): "The allocation of injury or loss to a wrongful act is, in principle, a legal and not only a historical or causal process. Various terms are used to describe the link which must exist between the wrongful act and the injury in order for the obligation of reparation to arise. For example, reference may be made to losses 'attributable [to the wrongful act] as a proximate cause' or to damage which is 'too indirect, remote, and uncertain to be appraised' or to 'any direct loss, damage, including environmental damage and the depletion of natural resources, or injury to foreign Governments, nationals and corporations as a result of' the wrongful act. Thus causality in fact is a necessary but not a sufficient condition for reparation. There is a further element, associated with the exclusion of injury that is too 'remote' or 'consequential' to be the subject of reparation. In some cases, the criterion of 'directness' may be used, in others 'foreseeability' or 'proximity'. … The notion of a sufficient causal link which is not too remote is embodied in the general requirement in article 31 that the injury should be in consequence of the wrongful act, but without the addition of any particular qualifying phrase." This is referred to by Ireland at Reply, paragraph 2.14.

envisages, and what is also envisaged in the authorities to which Ireland refers,[19] is (i) a wrongful act and (ii) an actual injury that has resulted from that act. The foreseeability test is one of the tests used to see whether the injury was legally caused by the act such that reparation must follow.

2.14 But in this case there is no actual injury, and Ireland is using foreseeability to a quite different (and inappropriate) end. It says, in effect, it is foreseeable that X may happen, therefore it is possible now to establish a breach by reference to, and recover in respect of, X. This is a not a construct that is recognised as a matter of either municipal or international law. What Ireland does is to bring the concept of foreseeability forward from the issue of causation into the issue of whether there has been a wrongful act at all. That this is misconceived is evident, for example, from the approach adopted in the ILC draft articles - Part Two of the draft articles (Content of the international responsibility of a State) presupposes an internationally wrongful act (article 28) and then provides for the obligation to make reparation for injury caused by the wrongful act (article 31) in which context foreseeability may be considered. As explained in paragraph (1) of the introductory Commentary to Part Two, "Whereas Part One of the Articles defines the general conditions necessary for State responsibility to arise, Part Two deals with the legal consequences for the responsible State". Ireland attempts to compress these two discrete stages in its use of foreseeability as a tool to establish State responsibility.

2.15 Of course, foreseeability of an infringement of rights or serious harm might form the basis for the grant of injunctive relief, i.e. provisional measures pursuant to article 290 of UNCLOS. But that is not the relief that Ireland now claims.[20] Alternatively, the treaty provisions on which Ireland relies in respect of the MOX Plant might give rise to a right of action in respect of foreseeable events concerning THORP. The only provision with respect to which Ireland makes this argument is article 206. This issue is considered in Chapter 6 below and is based on the characterisation of the increased operation of THORP as a "potential effect on the marine environment", which of course it is not.

2.16 The position therefore is that if damage were ever suffered as a result of increased operation of THORP, and it was found that such damage constituted a breach of UNCLOS and was an intended or foreseeable result of the decision to authorise the MOX Plant, then a State Party to UNCLOS could expect to recover in respect of that damage in

[19] See Reply, paragraph 2.14, footnote 7.

[20] Its claim for an injunction pursuant to article 290(1) of UNCLOS has already been considered – and rejected – by ITLOS.

a case brought in respect of the MOX Plant. This is not the situation before the Tribunal, where (i) there is no damage, (ii) there can be no possibility of damage until a decision is made by the Secretary of State to allow further contracts for reprocessing at THORP, (iii) there is a further safeguard in that the Secretary of State's approval to such contracts will only be given if they are consistent with the United Kingdom's environmental objectives and international obligations and after consultation, (iv) this in any event presupposes that at some stage in the future such an approval will be sought by BNFL, i.e. that there will be a request by a customer for the reprocessing of fuel at THORP, which is a matter of speculation.[21]

2.17 There is nothing in the evidence on which Ireland relies that can change the basic facts outlined above.[22] That evidence merely addresses the further requirement in terms of a successful claim, which would be a demonstration that additional THORP contracts in some material way derived their existence from the MOX Plant. But that too is a matter of speculation that could only correctly be addressed in the light of the circumstances then pertaining. It might be the case, for example, that a Japanese customer contracted with BNFL to have further reprocessing at THORP, but also contracted to have the recovered plutonium manufactured into MOX at the new MOX plant planned for Rokkasho-mura in Japan, or at Melox in France.[23] Such additional reprocessing could not possibly be said to be linked to the MOX Plant. The Tribunal cannot speculate as to such matters, and foreseeability cannot correctly be used as a bridge to future uncertain events.[24]

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[21] It also presupposes that increased operation of THORP might lead to damage which, as has been demonstrated in Chapter 3 of the Counter-Memorial, is not the case. It should be added that Ireland's case is not improved where on occasion it says that an intensification of the operation of THORP due to the MOX Plant is "likely" as well as "foreseeable" (e.g. Reply, paragraphs 2.20-2.21, 2.40). It is also recalled that Mr MacKerron's evidence in the OSPAR arbitration was that prospects of future reprocessing contracts were slight. See paragraph 2.8 above.

[22] Reply, paragraphs 2.20-2.39.

[23] Ireland's case will no doubt be that transports of plutonium to Japan or France would not be permitted. This is merely Ireland's current view based on its current assessment of events. Even Ireland may have a quite different view several years from now, at a time when the hypothetical question might arise as to whether such transports would be allowed. Cf. in any event the second statement of Mr Rycroft (**Annex 42**), at paragraph 41, which notes that shipments of separated plutonium from the United Kingdom are not prohibited, and are feasible provided that domestic and international safeguards and security regulations are adhered to.

[24] As part of its argument in this respect, Ireland contends that certain existing THORP contracts would have been cancelled but for the operation of the MOX Plant. Reply, paragraphs 2.20-2.39. This contention is only made in respect of a small percentage of the existing THORP contracts and is also wrong for the reasons given in the second statement of Mr Rycroft (**Annex 42**), at paragraphs 14-30. It is assumed that the contention is made by way of evidence only. Otherwise, it is a new case (in respect of which there has been no application to amend Ireland's Statement of Claims) because it does not concern an alleged intensification of the operation of THORP due to the MOX Plant.

(ii) Pollution within the meaning of UNCLOS

2.18 Ireland's case on the meaning of pollution within article 1.1(4) of UNCLOS is considered in detail in Chapter 8 below. It is recalled that it is the United Kingdom's case that the discharges from the MOX Plant do not fall within the UNCLOS definition of pollution.[25] Ireland now "finds it astonishing that the United Kingdom should suggest that the deliberate addition of further plutonium, from the MOX Plant and THORP, to this stockpile should be entirely unregulated by the UNCLOS provisions on marine pollution".[26] There are two key points to be made here:

1. The issue is what article 1.1(4) of UNCLOS provides. The definition of pollution there has three principal elements: (i) there must be the "introduction by man, directly or indirectly, of substances or energy into the marine environment", which (ii) "results or is likely to result in" (iii) "such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities" etc. In other words, what is required is harm of some appreciable kind that is caused by an act, i.e. the introduction of substances or energy into the marine environment. As is shown in Section B below, there is no question in this case of the MOX Plant causing harm of any kind to the marine environment and, indeed, it is far from clear that Ireland even alleges this. Further, as has just been shown with respect to the alleged increased operation of THORP, this does not constitute a relevant act, i.e. the introduction of substances or energy into the marine environment. At its highest, there is a possibility that such an "introduction" might happen at an uncertain date several years from now. A possible future "introduction" of a substance or energy does not fall within article 1.1(4); nor, in any event, can Ireland show that discharges from THORP would lead to harm of any kind (see Section B below).

2. Article 1.1(4) of UNCLOS creates a threshold for the application of the UNCLOS provisions on pollution. This is an obvious point. If discharges from the MOX Plant or alleged increased operation of THORP ever satisfy that threshold, obligations arising under those provisions will be engaged. There is no question of UNCLOS somehow being disapplied.

[25] See Counter-Memorial, paragraphs 7.13-7.23.
[26] Reply, paragraph 2.42.

2.19 It must also be noted that Ireland's consideration of article 1.1(4) of UNCLOS is more an invocation of the provisions of a quite different – and inapplicable – instrument, the 1972 London (Dumping) Convention.[27] The Tribunal is concerned in this case with controlled emissions from the MOX Plant (a land-based activity), not the dumping at sea of radioactive substances which might or might not qualify as *de minimis.* Equally, the approach of the United Kingdom has not been that the emissions from the MOX Plant are to be treated as *de minimis* such that it might escape all or some aspects of regulatory control. The operation of the MOX Plant has always been treated as an activity subject to stringent regulatory control.[28]

(iii) The alleged need to resolve scientific controversies

2.20 Ireland has retained and developed its argument that this case is not a dispute about science.[29] There is however an obvious internal contradiction in Ireland's argument. Its starting position is that the Tribunal should not be looking at the scientific and technical facts, which are not in Ireland's favour, and which are therefore to be characterised as matters of "scientific controversy". Yet, in considering this so-called salient issue, Ireland maintains a case on the facts that posits harm caused by low dose radiation, which is itself a matter of controversy.[30] In truth, both Ireland's stance on the need to address the underlying scientific facts (no need) and its case on low dose risk radiation (risk, or at least uncertainty) are means of addressing the same basic problem for Ireland: the radioactive discharges with which the Tribunal is concerned in this case are tiny fractions of those discharges allowed pursuant to applicable international, European and domestic standards.

(a) Areas of agreement between the experts

2.21 Ireland plays down the existence of disagreements between the parties' experts and contends that none of these goes to the heart of the Dispute.[31] Insofar as there is agreement between the parties' experts, this is obviously to be welcomed, but it is very important that the Tribunal see how this agreement has developed. It is the evidence of the United Kingdom's experts and witnesses that is consistent with, for example, the

[27] Reply, paragraphs 2.51-2.53.
[28] See further at paragraphs 8.24-8.29 below.
[29] See Memorial, paragraph 1.3.
[30] Reply, paragraphs 2.64-2.68.
[31] Reply, paragraph 2.57.

Article 37 Opinions of the European Commission,[32] the European Community's August 2002 MARINA II Study (Radiological Impact on EU Member States of Radioactivity in North European Waters),[33] the IAEA Coordinated Research Project report of July 2001,[34] and the IAEA's 2002 TranSAS Appraisal.[35] In the face of this expert and other evidence, there has been a marked shift by Ireland from positions adopted in the Memorial. This must be a reflection of the fact that, in their reports prepared for the Reply, Ireland's experts have expressed considerable levels of agreement with the views of the United Kingdom's experts. For example, the United Kingdom's experts considered that the report of Ireland's key expert, Dr Barnaby, was contentious and based on incorrect data. The errors in his report on discharges from THORP were considered at paragraphs 3.27 to 3.32 of the Counter-Memorial. Ireland's response has been to re-submit Dr Barnaby's report in a revised form.[36]

2.22 But whilst it is not surprising that Ireland should now seek to downplay the extent of disagreement between the experts, the obvious conclusion is not that continuing areas of disagreement between the experts should be avoided: rather, it is that in assessing the weight to be attributed to the evidence of the different experts, regard should naturally be had to the extent that their evidence is consistent with recent international and regional studies and standard practices. Moreover, it follows from the above that the United Kingdom is not suggesting that the Tribunal needs to reach a conclusion on a point of true scientific controversy. Judicially manageable standards exist for the resolution of this Dispute and it is these that the United Kingdom encourages the Tribunal to apply.

(b) Ireland's response to the very low discharges in issue in the Dispute

2.23 In the guise of its justification for not looking at the underlying scientific and technical facts, Ireland offers three responses to the fact that the discharges that form the underlying subject-matter of this Dispute are negligible or equivalent to tiny fractions of natural background radiation.

2.24 Its first response is simply to say that this does not matter. It contends that duties of assessment and co-operation are constants, and are not affected by the fact that the risk

[32] See Counter-Memorial, paragraphs 2.7 and 2.20.
[33] See Counter-Memorial, paragraphs 3.47-3.49 and 3.61-3.63.
[34] See Counter-Memorial, paragraphs 3.86-3.88.
[35] See Counter-Memorial, paragraphs 2.94-2.97.
[36] The revised report is at Reply, Volume II, Appendix 13. Ireland has now supplied, on request, a 'tracked changes' version (**Annex 44**).

of pollution is Y or a thousand times Y.[37] This contention is not merely counter-intuitive, it is wrong and evidently so even from Ireland's own case. For example, article 206 of UNCLOS requires a threshold showing that a State has reasonable grounds for believing that "substantial pollution of or significant and harmful changes to the marine environment" may be caused by planned activities under its jurisdiction. Ireland relies on article 206. It must therefore engage in the underlying dispute as to whether this threshold is met in this case, i.e. it very obviously does matter whether the risk of pollution is Y or a thousand times Y as the Tribunal must determine whether there is a risk of substantial pollution or significant and harmful changes to the marine environment. Further, Ireland now accepts that the required extent of an environmental assessment is dependent on the likely environmental effect.[38] Again, where Ireland has put the quality of the United Kingdom's environmental assessment in issue, it must consider the extent of the underlying risk as this will be a factor in determining the extent of the assessment required. Similar comments apply in respect of any duties of co-operation, the nature and scope of which must obviously depend on the nature and scope of the relevant risk.

2.25 Ireland does accept that the extent of risk is relevant to the nature of the duty to prevent pollution. But here its response is to fall back on issues of formality. Ireland's case is that the United Kingdom failed to apply the correct environmental standards, the only example given being the application of the Best Practical Means (BPM) principle as opposed to the UNCLOS standard, which is said to require the minimising of discharges to the fullest possible extent.[39] This allegation is considered further in Chapter 3 below. The simple point here is that what really matters is whether the United Kingdom is responsible for a failure to take measures to prevent, reduce and control pollution and whether its conduct is in accordance with the requirements of the relevant provisions of UNCLOS. The issue is whether the relevant discharges constitute "pollution" (see sub-section (ii) above), and what have been the precise actions of the United Kingdom, not whether those actions have been characterised in public statements as the application of BPM (as referred to expressly at article 194(1) of UNCLOS) or Best Environmental Practice (BEP) and Best Available Techniques (BAT) (as referred to in Appendix 1 to the OSPAR Convention), which is a standard that Ireland says is different and should have been applied.

[37] Reply, paragraph 2.58.
[38] Reply, paragraph 6.40.
[39] Reply, paragraph 2.59.

2.26 Ireland's third response is to reiterate its case on risks from low dose radiation. On the one hand, Ireland says that there are no disagreements that go to the heart of the issues to be decided; on the other hand, it contrasts the differing expert views of Professor Liber and Dr Mothersill (for Ireland) and Dr Preston (for the United Kingdom), and it is strongly implicit that the former are to be preferred.[40] Their evidence is considered further at Section B and Chapter 8 below. The point here is that any contention that the case can be decided in Ireland's favour by reference to a few simple issues of fact that are not in dispute is undermined by the fact that, for this arbitration, Ireland has specially commissioned and continues to rely on some 18 expert reports.

2.27 By contrast, the United Kingdom welcomes all close analysis of the scientific and technical facts. This will satisfy the Tribunal, as it has satisfied the various regulatory and other bodies that have already examined the underlying facts, that no significant risks to the environment arise as a result of the operation of the MOX Plant (or, so far as relevant, THORP).

(iv) Radioactive discharges or radiation doses

2.28 Ireland's case that the United Kingdom has addressed radioactive discharges only in the context of the impacts of radiation doses is made up of the following components:

1. Part XII of UNCLOS has as its object the protection and preservation of the marine environment, not the protection and preservation of human health.[41]

2. The United Kingdom has nonetheless focused its attention entirely on radiation doses to susceptible groups of human beings.[42]

3. As the MARINA II study explains, there are no internationally agreed criteria or guidance for assessing the impact of radiation on flora and fauna.[43]

4. The United Kingdom is augmenting the existing inventory of plutonium and other radionuclides in the Irish Sea.[44]

[40] Reply, paragraphs 2.57 and 2.64-2.68.
[41] Reply, paragraph 2.69.
[42] Reply, paragraph 2.70.
[43] Reply, paragraph 2.75.
[44] Reply, paragraph 2.77.

5. It is not enough to assert that doses to humans are within internationally agreed safety levels or that there is no evidence of a significant impact on non-human species.[45]

6. In the absence of greater scientific certainty and the formulation of internationally agreed criteria, the greatest restraint is called for and the precautionary principle is to be applied.[46]

2.29 Reduced to its essentials, this construct amounts to no more than the following: there are discharges however minimal, there are insufficient international standards, the precautionary principle is therefore to be applied and requires restraint. The Tribunal will immediately note that it is being taken very far from the language of the provisions of UNCLOS on which Ireland continues to found its case. Each step in Ireland's argument is considered further below – and is shown to be flawed.

(a) UNCLOS and its focus on humans

2.30 Ireland's detailed contentions on pollution under UNCLOS have been briefly examined under sub-section (ii) above and are considered further in Chapter 8 below. For present purposes, it is sufficient to note that the pollution provisions on which Ireland relies do indeed have as one of their principal objects the protection of human health and human interests. It is recalled that pursuant to article 1.1(4) of UNCLOS pollution of the marine environment is defined by express reference to "such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities". All but the first of these categories are aimed at the protection of human health and human interests.

(b) The United Kingdom's alleged focus on radiation doses to human beings alone

2.31 It is not correct to say that the United Kingdom has focused its attention entirely on radiation doses to susceptible groups of human beings. There has been a consideration of specifically environmental impacts in the 1993 Environmental Statement, the Article 37 Euratom Submission and the Proposed Decision of the

[45] Reply, paragraph 2.78.
[46] Reply, paragraph 2.78.

Environment Agency of October 1998,[47] and this has continued in subsequent monitoring and impact assessment.[48]

2.32 However, it has been the position of the International Commission in Radiological Protection ("ICRP") that adequate protection of the environment will be achieved by application of the dose limits that it has set for the protection of humans.[49] This was the approach of the ICRP as at the crystallisation of this Dispute. Insofar as the United Kingdom has focused in the past on radiation doses to humans, this was in line with international standards and cannot possibly found an allegation of treaty breach. There are five key points:

1. Whilst the ICRP has now decided that a systematic approach for the radiological assessment of non-human species is needed, its aim is not to set regulatory standards but rather to recommend a framework that can be a practical tool to provide high level advice and guidance. It is envisaged that this will be in place by 2005. The United Kingdom's conduct is to be adjudged by reference to the applicable standards as of the date of the conduct claimed to be in breach of UNCLOS, not by reference to a guidance that will not be formulated until 2005 and the content of which is not clear.

2. The new ICRP approach has not been driven by any particular concern over environmental radiation hazards, but rather to fill a conceptual gap.[50]

3. Whilst as a general rule there has been very limited attention to the impact of radioactive discharges on the environment, there are exceptions to this and one exception is the work that has been carried out by the United Kingdom with

[47] See Counter-Memorial, paragraphs 5.51 and 5.54.

[48] See e.g. Counter-Memorial, paragraphs 3.55-3.64, the first report of Ian Parker, paragraphs 4.8 and 7.4 (**Annex 7**). See also the second report of Mr Parker, at paragraph 2.9 (**Annex 40**). Whilst it is undoubtedly the evidence of Ireland's expert, Mr Killick, that the United Kingdom's Strategy for Radioactive Discharges 2001-2020 ("the Strategy 2001-2020") focuses on doses to humans, this conclusion is based on selective references to the Strategy 2001-2020, and ignores in particular section 6.3 thereof which addresses precisely this issue.

[49] See ICRP 60 (1990), section 1.4, paragraph 16 (**Annex 16**): "The Commission believes that the standard of environmental control needed to protect man to the degree currently thought desirable will ensure that other species are not put at risk. Occasionally, individual members of non-human species might be harmed, but not to the extent of endangering whole species or creating imbalances between species."

[50] See "The evolution of the system of radiological protection: the justification for new ICRP recommendations", Memorandum of the International Commission on Radiological Protection, in *Journal of Radiological Protection*, 23 (2003), p. 129 at p. 139 (**Annex 45**). See further at paragraphs 8.26-8.28 below.

respect to the Sellafield site. In truth, the United Kingdom is at the forefront of the new developments.[51]

4. As explained further at paragraph 3.18 below, Ireland is criticising the United Kingdom for an approach that Ireland itself appears to adopt.

5. In any event, as is explained in the second report of Mr Ian Parker of the United Kingdom's Environment Agency, a consideration only of quantities of given radioactive discharges, as opposed to the effective dose received, would give a misleading and incomplete picture of their environmental impact. The radiological properties of a radionuclide must be taken into account when either setting a discharge limit or assessing the impact of a specific discharge.[52]

2.33 Moreover, Ireland's focus on the issue of whether regard should be had to radiation doses to humans (although UNCLOS undoubtedly requires this) once again tends to obscure the key fact. However the radioactivity at issue in this case is measured, whether in terms of radiation doses to humans (measured in sieverts) or to humans and other biota (measured in grays) or in terms of simple discharge (measured in becquerels), the radiation is negligible (in the case of the MOX Plant) or very small (in the case of THORP).[53] It is not as if the limits of doses to humans were being approached such that one could posit greater and more harmful impacts to other biota and a need, therefore, for caution.[54] In the case of the MOX Plant, the radiation dose to the human critical group is less than one millionth of natural background radiation, while the equivalent dose from THORP is less than one half of one per cent of natural background radiation.

[51] See further at paragraph 8.48 below. See also with respect to the research activities of BNFL, the second statement of Mr Clarke (**Annex 36**), paragraphs 41-47.
[52] See second report of Mr Parker (**Annex 40**), paragraphs 2.2-2.3.
[53] See "The evolution of the system of radiological protection: the justification for new ICRP recommendations" (**Annex 45**) at pp. 134-135: "If the effective dose to the most exposed is, or will be, less than about 0.01 mSv in a year, then the consequent risk is negligible and protection may be assumed to be optimised, thus requiring no further regulatory concern". See further at paragraphs 8.18-8.19 below. The effective dose from the MOX Plant is far smaller than 0.01 mSv (by several orders of magnitude). The effective dose from THORP for each of 2000 and 2001 was 0.01 mSv (aerial discharges) and 0.002 (liquid discharges).
[54] It is recalled that BSS Direction 2000 (which implements in part Directive 96/29/Euratom, which in turn implements the ICRP standard, ICRP 60) provides that the dose from a single new source of radiation must not exceed 0.3 millisieverts per year and the dose from a single site must not exceed 0.5 millisieverts per year.

(c) The absence of internationally agreed criteria or guidelines for assessing the impact of radiation on the environment

2.34 Instead of constructing a case built around the existence of international standards, and a failure to meet those standards, Ireland now appears to contend that there are no standards and (implicitly) that therefore there can have been no compliance with relevant standards.[55] However, the relevant assessment standard so far as the Tribunal is concerned is contained in article 206 of UNCLOS. Ireland has not so far suggested that the Tribunal is unable to judge whether this was met – to the contrary. The applicable domestic and European standards have been met, as the United Kingdom has shown.[56] Such standards include the requirement of the justification of a practice giving rise to exposure to ionising radiation. This is derived from the ICRP standard which already embodies an element of precaution.[57]

2.35 As already indicated under (b) above, the absence of criteria or guidance as referred to by the MARINA II study does not lead to the conclusion that the existing standards applied by the United Kingdom were inadequate or that the United Kingdom's performance by reference to (or exceeding) those standards has been inadequate.

(d) Augmenting the existing inventory of plutonium in the Irish Sea

2.36 Throughout its Reply, Ireland replaces a consideration of the extent of the radioactive emissions from the MOX Plant and THORP with references to "industrial scale discharges of radioactive waste". A breach of UNCLOS can only be found if Ireland shows that, for example, the relevant discharges constitute "pollution" within the meaning of article 1.1(4) of UNCLOS, or that the threshold requirement of "substantial pollution of or significant and harmful changes to the marine environment" contained in article 206 is met. This requires a considerably more scientific approach than Ireland's rhetoric allows for. Further, as noted at paragraph 2.43 below, the actual impacts on marine biota of discharges from the Sellafield site may have occurred as a result of both current and historical discharges, i.e. it is unlikely to be possible to isolate and exclude the impacts of the "existing inventory" when actual impacts are monitored (as opposed to

[55] Cf. the approach that Ireland has adopted in relation to environmental impact assessment at Chapter 7 of its Memorial and Chapter 6 of its Reply, in particular e.g. paragraphs 7.29-7.30 of the Memorial. The United Kingdom had understood Ireland as contending for the application of new norms and standards in the assessment context. This no longer appears to be the case.
[56] Counter-Memorial, Chapter 5.
[57] Counter-Memorial, paragraphs 7.60-7.64.

modelled). However, the impact studies still show an absence of significant impacts.

(e) Ireland's case that it is not enough to assert that doses to humans are within internationally agreed safety levels/that there is no evidence of a significant impact on non-human species

2.37 There are three points to be made:

1. The United Kingdom does not "assert" that doses to humans are within internationally agreed safety levels. It is a fact that is (i) established by the United Kingdom's evidence, (ii) accepted, for example, by European Commission experts, and (iii) not challenged by Ireland, that the radiation doses from the MOX Plant and THORP are tiny fractions of those doses allowed pursuant to applicable international, European and domestic standards.

2. The United Kingdom is criticised for "asserting" that there is no evidence of a significant impact on non-human species. However, by way of example, it was pointed out in the Counter-Memorial that the European Community MARINA II study has concluded that: "During the assessment period (1986-2001), the dose rates to marine biota in the vicinity of Sellafield were below the levels, where any deterministic effects of radiation could be expected in marine organisms from natural populations".[58] This conclusion is of course in respect of the Sellafield site as a whole. Discharges from THORP account for less than 20% of Sellafield site discharges, whilst discharges from the MOX Plant are less than 1% thereof.[59]

3. Ireland has now accepted in terms, with reference to this case, that: "It does not assert that there are proven and serious detrimental effects on the biota of the Irish Sea".[60] This is striking. It is now clear that Ireland's case is not based on alleged significant impacts, it is based merely on an allegation of scientific uncertainty.

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[58] Counter-Memorial, paragraph 3.61, referring to Annex F of the MARINA II study at page 36, paragraph 5 (**Annex 19**). See also *ibid*. at paragraph 3.62 referring to Annex F of the MARINA study, Executive Summary, page (xii): "20. The methodology for determining the impact of radioactivity on marine biota is still under development. However, according to the available information, there is no identifiable impact on populations of marine biota from radioactive discharges (Figure 14)."

[59] For detailed conclusions regarding the doses to marine biota from the MOX Plant and THORP, see the report of Professor Jones (**Annex 39**).

[60] Reply, paragraph 2.77.

(f) In the absence of greater certainty/internationally agreed criteria, the precautionary principle is to be applied

2.38 This issue is dealt with at paragraphs 8.32-8.48 below. It is sufficient here to recall that internationally agreed standards do exist and they incorporate an element of precaution. As to uncertainty, as appears from Section B below, the position is exaggerated by Ireland and uncertainties are not such as to render inadequate the existing risk assessments for the MOX Plant and THORP.

B. THE REAL ISSUE: THE ABSENCE OF RISK OF SIGNIFICANT IMPACTS TO THE MARINE ENVIRONMENT

2.39 The point has just been made that Ireland does not even contend for proven and serious detrimental effects on the biota of the Irish Sea in this case.[61] This is of obvious importance for the Tribunal. Ireland is saying expressly that evidence of significant impacts is not part of its case. Of course, if Ireland had such evidence, this would be deployed. Such evidence would be vital even to the application of the substantive obligation under article 206,[62] which provision is of ever-increasing importance to Ireland's case. The inference may safely be drawn from Ireland's concession, and from its failure to respond to Chapter 3 of the United Kingdom's Counter-Memorial on the scientific and technical facts, that it has no evidence of significant impacts from either the MOX Plant or THORP. In a case concerning "the protection of the marine environment of the Irish Sea", this is of defining importance.

2.40 Ireland's case, so far as the scientific and technical facts are concerned, is now based solely on uncertainty. This is said to exist in two respects: first, due to the inadequacy of the study of radiological impacts on marine biota; second, due to the potential effects of low dose radiation. However, in neither case is uncertainty to be associated with significant risk. Insofar as Ireland contends to the contrary, which is not wholly clear, at least in the case study of radiological impacts on marine biota, it is adopting an extreme position. While in both cases, further study of impacts is generally acknowledged to be desirable, in neither case is it generally considered that a current lack of knowledge calls into question the existing standards of radiological protection.

[61] Reply, paragraph 2.77.
[62] See further at paragraphs 6.20-6.37 below.

(i) Study of the radiological impacts on marine biota

2.41 It has already been seen that although the ICRP has now decided that a systematic approach for the radiological assessment of non-human species is needed, this new approach has not been driven by any particular concern over environmental radiation hazards, but rather to fill a conceptual gap.[63] The question therefore is whether the impacts of the MOX Plant and the increased operation of THORP that Ireland alleges do nonetheless raise a particular concern – despite the fact that the radiation doses from these plants are so much lower than the applicable ICRP, European and domestic limits.[64]

2.42 There are two facts to be borne in mind:

1. Although as a general rule there has been little study of radiological impacts on marine biota, this is not the case so far as discharges from Sellafield are concerned. The MARINA II study notes that "the area surrounding Sellafield is by far the most studied area in terms of doses to critical groups" and that "the environment and foodstuffs are also closely monitored".[65] This conclusion also applies so far as the study of doses to non-human biota is concerned.[66]

2. The general conclusions of the studies on the impacts to biota from discharges from the Sellafield site do not suggest a significant risk. This is evidenced, for example, by the MARINA II study: "During the assessment period (1986-2001), the estimated dose rates to marine biota in the vicinity of Sellafield were found to be even lower than the levels suggested in the literature at which effects on aquatic organisms at a population level would be unlikely (UNSCEAR 1996, IAEA 1992)".[67] A gradual decrease in dose rates was also found in this assessment period.

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[63] See "The evolution of the system of radiological protection: the justification for new ICRP recommendations" (**Annex 45**). See further at paragraphs 8.26-8.28 below.

[64] The estimated effective dose from the MOX Plant is 0.000002 millisieverts (gaseous) and 0.000000003 millisieverts (liquid). The estimated effective dose from THORP in 2000-2001 was 0.01 millisievert (gaseous) and 0.002 millisieverts (liquid). This is to be compared with BSS Direction 2000 (implementing Directive 96/29/Euratom and ICRP 60) which provides that the dose from a single new source of radiation must not exceed 0.3 millisieverts per year and the dose from a single site must not exceed 0.5 millisieverts per year.

[65] MARINA II, Annex E: Critical Group Exposure, section 2.2.

[66] E.g. first report of Dr Hunt, paragraph 34 (**Annex 4**); first report of Dr Woodhead, paragraph 1.7 (**Annex 11**).

[67] MARINA II, Annex F, Assessment of the Impact of Radioactive Substances on Marine Biota of North European Waters, p. (xi), (**Annex 19**).

2.43 It is to be emphasised that such conclusions are (i) made in relation to all discharges from the Sellafield site, and (ii) do not distinguish between doses that arise from current emissions and those from existing deposits of radionuclides (from a period many years ago when the discharges from Sellafield were two orders of magnitude greater). On the basis that discharges from Sellafield have been subjected to an unusual degree of study, and that from such studies it is thought that doses to marine biota are even below thresholds where effects are thought *unlikely*, it follows that the far smaller discharges from the MOX Plant and alleged increased operation at THORP entail even less of a risk to the marine environment. This is confirmed in the report of Professor Steven Jones (**Annex 39**).

(ii) Low dose radiation

2.44 Ireland's case on low dose radiation is to posit a state of scientific uncertainty and to conclude from this that "no State may dismiss the possibility of harm to human beings or other biota arising from low-dose radiation" or "in other words, give low-dose radiation a zero risk rating".[68] Hence the transition is from uncertainty to possible risk.

2.45 It is common ground that current ICRP standards exist for assessing risks from radiation and it now appears to be accepted that, by reference to those standards, neither the MOX Plant nor THORP present a significant risk. It is also common ground that further research in the area of responses to radiation is required. The question is whether the existing standards have been called into question such that a particular caution must be applied to all new activities giving rise to radiation even where these satisfy the existing standards.[69] The answer to this is 'no'. In the words of Ireland's expert, Professor Liber:

> "I do not advocate changing the risk estimates at this time, because I do not think there is a sufficient basis for doing so. However, I do believe that risk assessment must remain a continuing and evolving process. Therefore I *do* advocate considering the impact that these new data may have on human health, and for using those data to devise new approaches for looking at effects within exposed populations, with an eye toward revisiting the question."[70]

[68] Reply, paragraph 2.81.
[69] Of course, Ireland's argument has ramifications that go far beyond the individual case of the MOX Plant.
[70] Second report at Reply, Volume II, p. 100 (emphasis in the original).

2.46 In this respect, there is considerable agreement between Professor Liber and the United Kingdom's expert, Dr Preston. Dr Preston observes:

> "4. In general, Prof. Liber and I agree that it is not required at this time to change the cancer risk assessment for ionizing radiations in response to the research on bystander effects, genomic instability, and adaptive responses. Similarly, we agree that it is not required to change the hereditary risk assessment based on observations related to the reports of possible induction of minisatellite alterations in human germ cells.
>
> 5. I also certainly endorse Prof. Liber's opinion that continued research in the area of responses to ionizing radiation is required and that over time, and if there are changes in the approaches used for estimating cancer and hereditary risks, the possible influence of these cellular phenomena on risk assessments needs to be considered."[71]

2.47 In circumstances where Professor Liber and Dr Preston agree that the possibility of impacts from low dose radiation is not such as to require change to the current standards for assessing risks from radiation, it is difficult indeed to see how the Tribunal could dis-apply these standards. Ireland encourages the Tribunal to act in a way that is quite exceptional, i.e. to depart from standards agreed and applied by all States which, according to Ireland's own expert, remain valid. It is not a question of giving low dose radiation "a zero risk rating"; rather it is a question of recognising that the risk is not such as to require a reappraisal of the ICRP's existing standards.

2.48 Against this conclusion, which is expressly not controversial so far as the ICRP and Professor Liber and Dr Preston are concerned, Ireland relies on the evidence of its second expert, Dr Mothersill. As Dr Preston explains, the difference of opinion with Dr Mothersill "stems largely from the fact that Dr Mothersill pays no regard to how cancer risk assessments are conducted and thus confuses a qualitative argument with a quantitative risk assessment approach".[72] This is developed further in Dr Preston's evidence. In the end, however, the Tribunal's task is greatly simplified as it can (and must) weigh Dr Mothersill's evidence against the level of agreement in the evidence of Professor Liber and Dr Preston and in the wider scientific community.

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[71] Second report of Dr Preston, paragraphs 4-5 (**Annex 41**).
[72] Second report of Dr Preston, paragraph 8 (**Annex 41**).

(iii) Other issues of fact on which Ireland relies

2.49 Ireland's case on breach of the UNCLOS pollution provisions is now made by reference to six allegations of fact.[73]

1. *The United Kingdom has failed to identify and take into account all the "environmental consequences" of the MOX Plant*. This allegation, which is in essence Ireland's case on failure to comply with article 206 of UNCLOS, is dealt with in Chapter 6 below. It is to be noted that, just as in Chapter 3 of Ireland's Memorial ("Environmental Implications of the MOX Authorisation"), where Ireland introduced the concept of an "environmental implication" although this is not to be found anywhere in UNCLOS, or indeed in any international instrument concerning the environment, Ireland again does not refer to environmental impacts or effects, but merely of "consequences". It is again embarrassed by the absence of environmental impacts or effects of the MOX Plant.

2. *The United Kingdom has ignored the potential consequences of the extended operation of THORP and other facilities at Sellafield, as well as increased international transports.* This allegation appears to derive from Ireland's unwillingness to deal in any way with Chapter 3 of the United Kingdom's Counter-Memorial. The issue of the extended operation of THORP is considered at paragraphs 3.21-3.25 thereof as well as at paragraphs 2.6-2.17 of this Rejoinder. The actual radiological impacts of THORP and the Sellafield site as a whole are considered at paragraphs 3.26-3.69 of the Counter-Memorial. The issue of transports is considered at paragraphs 2.79-2.97 and 3.79-3.93 of the Counter-Memorial, where *inter alia* the United Kingdom notes the determination of the 2002 IAEA TranSAS Appraisal that "the UK has gone well beyond what has been and is currently required in the area of the maritime transport of radioactive material covered in the IMO IMDG, INF and ISM [International Safety Management] codes, implementing recommendations that have since or are later anticipated to become mandatory, and often adopting additional measures beyond those specified in these codes …".[74] It cannot but be noticed that Ireland has failed to respond to any of the

[73] Reply, paragraph 8.4.
[74] **Annex 15**, paragraph 4.127.

evidence that the United Kingdom has advanced here. It is evidently Ireland that is choosing to ignore these important areas of fact.

3. *The United Kingdom has focused exclusively on the consequences of discharges from the MOX Plant on human health.* This allegation has already been considered at paragraphs 2.31-2.33 and 2.37 above, and is wrong for the reasons set out there.

4. *The United Kingdom has applied BPM instead of BET/BAT*. This allegation has been touched on at paragraph 2.25 above and is considered further at paragraphs 3.14-3.18 below. The obvious point is that article 194(1) of UNCLOS expressly requires the application of BPM. It does not refer to any other terms or standards.

5. *The United Kingdom has failed to consider and require the use of alternative technologies, including abatement technologies*. This allegation is considered at paragraphs 2.50-2.51 below.

6. *The United Kingdom has failed to have any regard to obligations arising under the Sintra Statement*. This allegation is considered further at paragraphs 3.19-3.28 below. The key points are that any alleged failure to meet a commitment to reduce additional concentrations of radionuclides above historic levels to "close to zero" by 2020 is (i) evidently premature, (ii) a matter to be considered by reference to the OSPAR Convention, not UNCLOS, (iii) a matter under the review of the OSPAR Commission and not for an UNCLOS tribunal, and (iv) made almost exclusively by reference to the United Kingdom's Strategy 2001-2020, which is not a document that focuses on the issue of the MOX Plant and which post-dates the crystallisation of this Dispute.

2.50 Ireland's case on a failure to consider and require the use of alternative technologies, including abatement technologies, has been developed by reference to evidence from a new expert, Mr Killick.[75] His views have been considered by Mr Parker

[75] See Reply, Volume II, Appendix 15. The revised report of Dr Barnaby adds nothing of substance on this issue. Reply, Volume II, Appendix 13 at section 8.5. Comments on abatement in the original report of Dr Barnaby have already been considered by the United Kingdom's expert, Mr Parker, at paragraphs 6.8-6.9 of his first report (**Annex 7**); see also the first statement of Mr Clarke, at paragraphs 113-114 and 173-190 (**Annex 2**).

of the Environment Agency and Mr Clarke, BNFL's Head of Environment, Health, Safety and Quality at the Sellafield site.[76] The key issues that arise from the evidence of Mr Parker and Mr Clarke are as follows:

1. As to the comparison that Mr Killick draws between the MOX Plant and the Savannah River MOX Facility in the United States, his conclusion that the Savannah River Facility gives rise to no liquid discharges at all appears questionable, whilst the aerial discharges from the MOX Plant are in fact less than those from the Savannah River Facility. However, the real point is that the emissions from both plants – as well as their environmental effects – are negligible.[77]

2. The comparison that Mr Killick draws between the performance of THORP and reprocessing facilities at Cap La Hague in France, Rokkasho-mura in Japan, and Wackersdorf in Germany is inappropriate and anyway not unfavourable to THORP. It is inappropriate that THORP be compared with plants that are not operating (Rokkasho-mura and Wackersdorf), and it is inappropriate to compare discharges from reprocessing facilities (La Hague, Rokkasho-mura, Wackersdorf) with discharges from the entire Sellafield site. However, the comparison between THORP and La Hague shows that the differences in discharge of most key radionuclides are not significant. Indeed, if a more detailed comparison is effected with Rokkasho-mura and Wackersdorf (regardless of their non-operating status), this again shows that the discharges from THORP are not out of line with discharges by reference to the use of alternative technologies.[78]

3. Specific abatement measures must be considered not merely by reference to the potential reductions of radioactive emissions, but also by reference to plant safety, reliability and adaptability, and also cost-effectiveness. Many of the measures suggested in Ireland's evidence are in fact already in place or are under development (for example, abatement measures in relation to carbon-14, cobalt-60, iodine-129 and caesium-137); others have been explicitly considered by BNFL and reviewed by the Environment Agency, but have been

[76] Respectively, **Annexes 40** and **36**.
[77] Second statement of Mr Clarke (**Annex 36**), paragraphs 48-64.
[78] Second report of Mr Parker (**Annex 40**), paragraphs 5.6-5.10; second report of Mr Clarke (**Annex 36**), paragraphs 25-29.

rejected for reasons given in the United Kingdom's evidence.[79]

2.51 Ireland's case that the United Kingdom has failed to consider and require the use of alternative technologies and abatement measures is unsupported. The plants at Sellafield that are at issue in this case perform well when compared to other plants, even where these are more recent designs. Various abatement measures have been proposed in Ireland's evidence, but these have indeed been considered and, where appropriate, implemented.

[79] Second report of Mr Parker (**Annex 40**), paragraph 5.12; second report of Mr Clarke (**Annex 36**), paragraphs 19-22.

CHAPTER 3

THE AUTHORISATION PROCESS

A. INTRODUCTION

3.1. Since the authorisation process for the MOX Plant involved a planning stage at which an environmental assessment was carried out, then no fewer than five rounds of consultation held in the context of justification under Directive 96/29/Euratom, together with the procedure prescribed by Article 37 of the Euratom Treaty, Ireland is unable to deny that it was thorough. It has to seek an alternative basis for impugning the process. So Ireland complains that, in the course of the authorisation process, the competent authorities in the United Kingdom did not consider the terms of UNCLOS or those of the other international instruments that Ireland now invokes.[1]

3.2. That complaint takes no account of the fact that the United Kingdom's legal system is dualist. It is by the enactment and observance of appropriate domestic laws and regulations that the United Kingdom discharges its international commitments. In such a system it is only to be expected that the regulators would refer to the domestic laws and regulations pursuant to which they exercise their powers. As Mr Parker has stated in evidence before this Tribunal:

> "In exercising its functions under [the Radioactive Substances Act 1993] the Agency has regard to the UK Government policy on radioactive waste and the UK Government's international commitments".[2]

3.3. Moreover, as has been shown in Chapter 2 above, discharges from the MOX Plant were to be on an infinitesimally small scale. The Environment Agency calculated that discharges from the MOX Plant amount to only a tiny fraction of naturally-occurring radiation:

> "The Agency expect that radioactive discharges to the air from the SMP [Sellafield MOX Plant] would contribute less than 1% to the total annual aerial radioactive discharges from the Sellafield site as a whole and that annual aerial radioactive discharges from the SMP would contribute less than 0.0001% of the total annual liquid radioactive discharges

[1] Reply, paragraphs 3.1, 3.57 and 3.64.

[2] First report of Mr Parker (**Annex 7**), paragraph 3.13; see further paragraphs 3.15.1 to 3.15.6. The decision on justification taken by the Secretaries of State on 3 October 2001 was expressly based on the applicable Euratom Directives. As the Decision itself explained, those Directives were applied in the light of the latest recommendations of the International Commission on Radiological Protection: Decision of 3 October 2001, paragraph 23, Memorial, Volume III, Part Two, p. 227.

from the Sellafield site. The radiation dose from the SMP to the most exposed group among the general public is estimated at 0.002 microsieverts per year for aerial discharges and at 0.00003 microsieverts per year for liquid discharges. An annual dose of 0.002 microsieverts represents around one millionth of the dose from natural background radiation (e.g. radon and cosmic rays) of 2000 microsieverts received by average members of the UK population and an estimated annual risk of one person in 10,000,000,000 contracting a fatal cancer."[3]

3.4. In those circumstances, Ministers or regulators were not obliged to refer expressly to every international rule and standard that might be invoked by those opposed to the project.[4] What mattered was that decisions should comply with applicable international rules and standards.

3.5. In the face of the uncontroverted evidence that discharges from the MOX Plant are to be so low, Ireland asserts repetitively that "radioactive discharges on an industrial scale" equate to "pollution".[5] The phraseology is, presumably, designed to mask the tiny scale of the discharges involved. Ireland adduces no evidence of harm actually caused to the marine environment, or to organisms within it, in consequence of the MOX Plant, or of the probability that such harm will be caused. Nor does Ireland assert that it is has suffered any economic harm to any of its interests. Indeed, Ireland was consulted by the independent consultants appointed by the Department for Environment, Food and Rural Affairs ("Defra") to carry out a Regulatory Impact Assessment before the United Kingdom's Discharges Strategy was published. The consultants specifically asked for quantification of costs and benefits in connection with the various scenarios examined. Ireland offered no quantification.[6]

B. THE AUTHORISATION OF THORP

3.6. Ireland maintains its contention that THORP has never been the subject of an environmental assessment.[7] This appears to form part of its argument that the environmental assessment of the MOX Plant was inadequate because it did not consider the impacts of the

[3] Decision of the Secretaries of State, 3 October 2001, paragraph 57, Memorial, Volume III, Part Two, p. 236.
[4] Cf. Ireland's complaint, at paragraph 3.14 of the Reply, that the United Kingdom has not referred to the Sintra Statement and the OSPAR Convention.
[5] Reply, paragraphs 1.7, 1.10, 2.44, 6.8, 6.27, 7.44, 7.52, 7.142, 8.15, 8.22, 9.23.
[6] See Ireland's letter of 9 January 2002 from Renée Dempsey to Entec UK Ltd (**Annex 46**).
[7] Reply, paragraph 3.5.

increased operation of THORP that Ireland alleges as being due to the authorisation of the MOX Plant. One obvious answer to this is that the environmental impacts of THORP have been subject to assessment in a separate regulatory procedure.

3.7. Ireland's contention that the environmental assessment of the MOX Plant should have assessed the impacts of the alleged increased operation of THORP is considered at paragraphs 6.31-6.37 below. There are however three points to bear in mind at this juncture.

3.8. In the first place, Ireland's assertion that THORP has never been the subject of an environmental assessment is unsupported by any evidence and is inconsistent with the decision in *R v Secretary of State for the Environment and Others, ex parte Greenpeace Ltd and Another*. This concluded that although Directive 85/337/EEC did not apply to THORP (because it was not in force at the relevant time), the substantive requirements of that Directive were in fact met.[8] Insofar as it is part of Ireland's positive case that there was no sufficient environmental assessment of THORP, it is for Ireland to establish this by reference to (a) what it considers to be the relevant applicable law, (b) the assessment that was as a matter of fact carried out.

3.9. In the second place, Ireland's case as to the relevant applicable law must presumably be that the initial environmental assessment of THORP did not satisfy the requirements of article 206 of UNCLOS. It is this provision which it says is to be applied to any increased operation of THORP due to the authorisation of the MOX Plant and which, implicitly, has not been satisfied by reference to the existing environmental assessment of THORP. This is tantamount to a retrospective application of article 206.

3.10. Thirdly, in terms of the assessment of the environmental impacts of THORP, Ireland focuses on the planning enquiry and report of 1977-1978.[9] The impression given is that such assessment as there has been in respect of THORP easily pre-dates the creation of all the relevant international, European and domestic standards, and could in no way sensibly be relied on as of, say, 2001 when the decision was taken to authorise the MOX Plant. The impression that Ireland seeks to give is incorrect. Up-to-date information was available. In February 2000, for example, the Environment Agency required BNFL to provide (amongst other matters) information on the

[8] *R v Secretary of State for the Environment and Others, ex parte Greenpeace Ltd and Another* [1994] 4 All ER 352 at 377.
[9] Reply, paragraph 3.7.

radiological impact assessments for aerial and liquid discharges from the Sellafield site, including from THORP. All the information supplied by BNFL is publicly available. It was fully assessed by the Agency as part of the review process.[10]

3.11. There is a gap in Ireland's case that cannot be filled by the repeated assertion that THORP has never been the subject of an environmental assessment. Its case is that the potential effects of THORP on the marine environment have not been assessed sufficiently for the purposes of article 206 of UNCLOS, because an assessment should have included the (alleged) increased operation of THORP due to the MOX Plant. Just as with respect to the impacts of the alleged increased operation of THORP, Ireland invites the Tribunal to take it as a given that these will lead to significant impacts on the marine environment,[11] Ireland expects the Tribunal to take it as a given that the existing environmental assessment is insufficient in respect of the increase in operation that Ireland alleges.

C. APPLICABLE RULES AND STANDARDS

3.12. Elsewhere in the Reply Ireland claims that, by authorising the MOX Plant, the United Kingdom acted inconsistently with UNCLOS, the OSPAR Convention and the 1998 Sintra Statement.[12]

3.13. It is first necessary to reiterate that the jurisdiction of the present Tribunal is defined by article 288(1) of UNCLOS which provides for jurisdiction over "any dispute concerning the interpretation or application of this Convention". A dispute concerning the OSPAR Convention or the 1998 Sintra Statement is not a dispute concerning the interpretation or application of UNCLOS. There is no basis, whether in article 293 of UNCLOS or elsewhere, for treating such a dispute as one within the jurisdiction of this Tribunal.[13]

[10] Second report of Mr Parker, paragraph 3.9 (**Annex 40**).
[11] See paragraph 2.4 above.
[12] Reply, paragraphs 3.14 to 3.38.
[13] See Counter-Memorial, Chapter 4, and Chapter 5 below.

(i) Best Practicable Means, Best Available Techniques and Best Environmental Practices

3.14. Continuing with its theme, Ireland asserts that the United Kingdom ignored its commitments under UNCLOS and the OSPAR Convention by failing to direct the Environment Agency to apply the terms used in Article 2(3)(b)(i) of the OSPAR Convention, which speaks of "best available techniques" ("BAT") and "best environmental practices" ("BEP"). Ireland contends that BAT and BEP apply by virtue of article 194(3) of UNCLOS, which speaks of measures "designed to minimise to the fullest possible extent" the release of toxic or harmful substances.[14] Ireland's case is that the OSPAR Convention language, which it seeks to incorporate into UNCLOS, has a different meaning from the expressions used in the United Kingdom's regulatory regime: Best Practicable Environmental Option ("BPEO") and Best Practicable Means ("BPM").[15] This, according to Ireland, constitutes "a significant failure in regulatory approach".[16]

3.15. BPM is, however, the term expressly used in UNCLOS, in article 194(1), which provides that States shall take measures to prevent, control and reduce pollution, using for this purpose "the best practicable means at their disposal". This is the standard for purposes of this case. In any event, under the OSPAR Convention (as under UNCLOS) the obligation is not to replicate the *ipsissima verba* of the international text but to secure the application of a standard consistent with the one that those texts contemplate. This the United Kingdom has done. The difference that Ireland purports to detect between the standard applied in the United Kingdom and the standard required by the international texts is illusory. The practical implementation of BPEO and BPM is highly case dependent. The effect of the application of those standards in this case is consistent with the standards prescribed by UNCLOS.

3.16. Under the OSPAR Convention, Contracting Parties are periodically required to submit evidence that the standard of the best available techniques is being applied to discharges from the nuclear industry. The United Kingdom gave a presentation to the Working Group on Radioactive Substances (RAD) (forerunner of the Radioactive Substances Committee) in January 2000. The summary record of that meeting includes the following:

> "4.6… RAD agreed that with respect to the implementation of PARCOM Recommendation 91/4:

[14] Reply, paragraph 3.15.
[15] Counter-Memorial, paragraphs 2.65 to 2.67.
[16] Reply, paragraph 3.16.

a. the Netherlands, Sweden and the UK had fulfilled the reporting requirements of this OSPAR measure;
b. the reports of the Netherlands, Sweden and the UK were in line with the (revised) guidelines adopted at OSPAR 1999 (as referred to in paragraph 4.2.c above);
c. that the information presented by the Netherlands, Sweden and the UK included indications that BAT had been applied in the nuclear installations of these Contracting Parties."[17]

3.17. Although Ireland and Norway expressed reservations as to whether the standard of the best available techniques has been applied with respect to the discharges of technetium-99 from Sellafield, there was no suggestion from any Contracting Party that, as the United Kingdom's regulatory regime applies the principles of BPM and "As Low as Reasonably Achievable" ("ALARA"), it does not comply with the requirements of the OSPAR Convention. Moreover, as Mr Clarke confirms, the two expressions "Best Available Techniques" and "Best Practicable Means" are usually considered in parallel and, indeed, are often used interchangeably.[18] If the standards applied to a process, facility and method of operation are the "best practicable environmental option" and use "best practicable means", radiation risks to the public and the environment will conform to the ICRP ALARA standard. ALARA has been incorporated in European legislation in Directive 96/29/Euratom.[19]

3.18. Indeed, in its own legislation Ireland appears to have adopted a similar approach to that followed in the United Kingdom. Directive 96/29/Euratom is implemented in Ireland by the Radiological Protection Act 1991 (Ionising Radiation) Order 2000,[20] which applies the concepts of 'effective dose' and 'equivalent dose' used in the Directive to measure exposure. The definition of effective dose includes weighting factors for each radiation and the relevant absorbing tissue.[21] Under Article 9(1) of that Order, exposures to the population are to be kept as low as reasonable achievable. The use of ALARA is specifically constrained by the requirement to take into account economic and social factors. This follows the wording in Article 6(3) and Article 14 of the Directive, which also includes reference to economic and social factors. Article 9(1) of the Order begins:

[17] RAD 00/12/1-E: www.ospar.org/eng/html/welcome.html. A PARCOM Recommendation is a recommendation of the Paris Commission, which is one of the predecessors of the OSPAR Commission.
[18] Second statement of Mr Clarke, paragraph 5 (**Annex 36**).
[19] Directive 96/29/Euratom of 13 May 1996, laying down Basic Safety Standards, OJ 1996 L 159/1.
[20] S.I. No 125. The Order is available at: http://www.irishstatutebook.ie/ZZSI125Y2000.html
[21] See Articles 2, 9(5) and 13 and Schedule 2

> "The undertaking shall ensure that all exposures, including those to the population as a whole, from practices and work activities under its control, are kept as low as reasonably achievable, taking into account economic and social factors […]"

Ireland's Order, like the Directive, is geared to protection of the public. Article 34(1) of the Order, for instance, reads:

> "An undertaking shall take such measures as are necessary to ensure the best possible protection of the population having regard to the provisions of Articles 8, 9 and 10 and the fundamental principles governing operational protection of the population."

(ii) The Sintra Statement

3.19. Ireland next claims that the authorisation of the MOX Plant is inconsistent with the Statement issued at the ministerial meeting of the OSPAR Commission held at Sintra on 22 to 23 July 1998.[22] The Statement has four characteristics which deserve emphasis.

3.20. Firstly, the Sintra Statement is a communiqué setting out (as the OSPAR Commission put it) "the political impetus for future action by the OSPAR Commission".[23] When the Council of the European Communities and the European Parliament came to draft a proposed Directive on water policy, they adopted from the Sintra Statement the wording referring to the ultimate aim of achieving concentrations in the environment close to zero for artificial radioactive substances. The Commission explained that this language:

> "ensures the aspirational, essentially political and non-legally binding nature of this aim for the marine environment in line with the original statement of Member States and the Commission made at Sintra in 1998 in the framework of a meeting of the Parties to the OSPAR Convention."[24]

3.21. Secondly, the Sintra Statement contemplates that participants will take action in pursuance of an action plan which is to be adopted by the OSPAR Commission. In the case of those participants which are members of the European Community, the measures appropriate to realize the objectives of the Sintra Statement may include action to be taken by the Community

[22] Reply paragraphs 3.17-3.25.
[23] See http://www.ospar.org/eng/html/welcome.html.
[24] Opinion of the Commission pursuant to Article 251(2)(c) of the EC Treaty (COM/2000/0219/final), paragraph 3.3: cf. Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000, OJ 2000 L 327/1, recital (27).

itself or action to be taken by Member States pursuant to Community legislation. In the meantime, as the European Commission has recognised, the implementation of the OSPAR Strategy and the development of procedures for review of the progress that has been achieved is a matter for the OSPAR Commission.[25] Indeed, proposals for Community legislation on the subject are now expected to be made in the light of the Council Conclusions, agreed at the Environment Council on 4 March 2003, requesting the Commission to bring forward, as soon as possible before 2005, a marine thematic strategy. Ireland's assertion that there is no lack of immediacy in the constraints imposed by the Sintra Statement overlooks the role of both the OSPAR Commission and the European Commission.[26]

3.22. Thirdly, the aim of the Sintra Statement is to be achieved progressively. The declared "objective" is to achieve progressive and substantial reductions of discharges, emissions and losses of radioactive substances, with the ultimate aim of achieving concentrations in the environment near background values for naturally occurring radioactive substances and close to zero for artificial radioactive substances. To this end, discharges, emissions and losses of radioactive substances are to be reduced by the year 2020 to levels where the additional concentrations in the marine environment above historic levels, resulting from such discharges, emissions and losses, are close to zero. By using the word "progressive", the participants were not intending to prohibit any activity which might result in a fresh source of radiation, however small. The Sintra Statement was not intended to prevent the decommissioning of redundant nuclear facilities, or the commissioning of new hospitals employing nuclear medicine, or new uses of radioactivity in medicine, or new industrial uses of radioactivity. However, in each of these cases there will inevitably be a new source of radioactive discharge.

3.23. Fourthly, although no time is fixed for the realization of that ultimate aim, the ministers and Commissioner stated that by the year 2020 discharges of radioactive substances will be reduced to levels where *the additional concentrations in the marine environment above historic levels* are close to zero. The words "additional concentrations ... above historic levels" would

[25] In response to Written Question P-2524/99, concerning the reprocessing plants at Sellafield and Cap La Hague, the European Commission stated: "The Commission maintains a watching brief on the situation with regard to levels of radioactivity in the environment on the basis of the information received under Article 36 of the Euratom Treaty, site specific data provided by Member States authorities, which may include results of measurements carried out by the operators, and other sources of information brought to the Commission's attention. … The Commission is undertaking actions appropriate to the OSPAR strategy with regard to radioactive substances. It is, however, a matter for the OSPAR Commission to coordinate and ensure implementation of the OSPAR strategy through the establishment of an action plan and the development of procedures for review of progress achieved through the strategy. The Commission is committed, along with other contracting parties, to continued involvement in the work of the OSPAR Commission and is participating in the relevant *fora* established by that commission to ensure proper support and direction": OJ 2000 C 280/63.

[26] Reply, paragraph 3.23.

have no meaning if, as Ireland pleads, the statement requires that the discharges and the radioactivity in them will need to be close to zero by 2020.[27]

3.24. The OSPAR Radioactive Substances Committee stated as follows in February 2003:

> "Provided that national plans are implemented as forecast, discharges, emissions and losses will be reduced during the time frame for the implementation of the Strategy. However, at this stage, it is not possible to make a final assessment whether or not the combined effects of the national plans will be to achieve the objective of the Strategy to the extent required by its time frame for 2020".[28]

Ireland and Norway consider that the first sentence should apply to some radionuclides only, but no delegation had any reservation on the second sentence. This confirms that the proper approach is to have regard to the entire time-frame. It also confirms, of course, that the issue of meeting the commitment is a matter that falls under the auspices of OSPAR.

3.25. Ireland casts doubt on the United Kingdom's commitment to the objectives of the Sintra Statement, referring to "the complete absence of evidence demonstrating that the Sintra commitment and other UNCLOS obligations were applied in the context of the MOX authorisation"[29] and invoking the criticisms of Ireland's new witness, Mr Killick, of the Strategy 2001-2020.[30] Several misconceptions are disclosed by that complaint.

3.26. In the first place, it is necessary to reiterate once again[31] that the Sintra Statement does not give rise to "UNCLOS obligations". In placing reliance on the Sintra Statement, Ireland invokes the wrong text in the wrong forum, to a sense incompatible with its terms and at a date long before that on which the Statement itself contemplates realisation of its objectives.

3.27. In the second place, the Environment Agency was aware of the Sintra Statement when it completed its consideration of the justification of the MOX Plant in October 1998. But the

[27] Reply, paragraph 3.18.
[28] Meeting of the Radioactive Substances Committee, Copenhagen: 10-14 February 2003, Summary Record, Annex 5, paragraph 34, RSC 03/11/1-E: www.ospar.org
[29] Reply, paragraph 3.24.
[30] Reply, paragraph 3.25.
[31] See paragraph 3.13 above.

assessed discharges from the Plant were considered to be insignificant compared to other discharges from the Sellafield and in relation to Sintra commitments. Also in October 1998, the Agency completed its consideration of proposed variations to authorised limits for a number of radionuclides discharged from Sellafield. In that decision, the Agency considered this was an adequate response to the concerns of OSPAR Contracting Parties, taking into account the United Kingdom's intent to develop strategies for the next 20 years for reducing radioactive discharges to the sea.[32]

3.28. In the third place, it is very clear that the United Kingdom took account of the Sintra Statement precisely for the purpose of framing its strategy for radioactive discharges. This is clear on the face of the Strategy 2001-2020.[33] The United Kingdom has achieved significant reductions in discharges and future discharges, including those from THORP, and will comply with the Sintra Statement.[34]

(iii) The Allegation of Excessive Headroom

3.29. Relying on a report from Mr Killick, Ireland criticises the regulatory regime operating at Sellafield, contending, in particular, that there is excessive headroom between actual discharges and authorised limits. As Mr Parker explains,[35] Mr Killick's report and Ireland's Reply disclose a lack of understanding of the Environment Agency's regulatory function and the manner in which it discharges its duties.

3.30. The Agency reviews existing nuclear site authorisations on a regular basis and maintains an ongoing assessment to ensure that the limitations and conditions in each authorisation remain appropriate and that BPM is being applied to minimise the creation of radioactive waste and to minimise discharges. The proposals made by the Agency for limits and conditions to be attached to new or varied authorisations resulting from these reviews are subjected to a public consultation. For proposals for the Sellafield site, views are solicited from the United Kingdom and overseas and any views presented are considered before any decisions are made on the authorisations.

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[32] See paragraphs 3.2 to 3.5 above and sources cited there.
[33] **Annex 14**.
[34] Report of Dr. Hunt (**Annex 4**), paragraph 16.
[35] Second Report of Mr Parker, Part 3 (**Annex 40**).

3.31. DETR (now Defra) and the Department of Health published for consultation at the end of 2000 draft Statutory Guidance to the Agency on the regulation of radioactive discharges from nuclear sites ("the draft Statutory Guidance"). This requires (*inter alia*) that limits should be set on the basis of a rolling year.[36]

3.32. Mr Killick appears to have overlooked the draft Statutory Guidance in his report. He compares actual discharges with the authorisation limits and the headroom between the two is calculated,[37] and concludes that these headrooms are still large (except for Co-60). However, in accordance with the draft Statutory Guidance, the proposed site discharge limits (that is, the column headed *"2002 Discharge[d] Authorisation (TBq)")* apply to rolling 12 month periods and not to calendar years. It is misleading to compare one selected 12 month rolling period to calculate headroom. If the data presented by Mr Killick are corrected to take account of this error, it will be found that for 14 out of 17 radionuclides the headroom calculated from the highest rolling 12 month discharge in the period 1997-2001 is lower than the headroom calculated by Mr Killick on the basis of only the calendar year 2001, and the remaining 3 radionuclides have the same headroom. When the rolling year data for the period 1994-2001 is used, all the calculated headrooms are lower than those calculated by Mr Killick. The data for zirconium-95/niobium-95 calculated on this basis are 3 times lower than Mr Killick's calculation for the period 1997-2001 and nearly 6 times lower than his calculation for the period 1994-2001. For ruthenium-106 the difference is more than 4 times lower.[38]

3.33. Furthermore, Mr Killick fails to consider the type, burn-up and cooling times of spent fuel, and the decommissioning and legacy waste retrieval activities. If these are taken into account, the calculated headrooms are significantly lower than Mr Killick has calculated.[39]

(iv) Progressive Reductions

3.34. Ireland places considerable weight on Figure 7 of Appendix 1 to the Strategy 2001-2020. This shows that projected alpha and beta liquid discharges from the United Kingdom's nuclear reprocessing sector in the years 2001 to 2005 will be higher than in the period 1996-2000, although discharges will then fall progressively so that total alpha discharges in 2026-30

[36] Second Report of Mr Parker, paragraph 3.5 (**Annex 40**).
[37] Report of Mr Killick, para 3.25, Table 2: Reply, Volume II, p.80.
[38] Second Report of Mr Parker, paragraph 3.22 (**Annex 40**).
[39] Second Report of Mr Parker, paragraphs 3.23-3.24 (**Annex 40**).

will be about 40% of the level for 2001-2005 and total beta discharges in 2026-2030 will be about 20% of the level for 2001-2005.[40] The arguments advanced by Ireland on the basis of that Figure call for several comments.

3.35. In the first place, notwithstanding Ireland's claim that the Figure is "directly relevant to this case", it shows projections of discharges from the nuclear reprocessing sector as a whole. Discharges from the MOX Plant, which will account for less that 0.0001% of the total annual liquid radioactive discharges from the Sellafield site, will be far too small to be visible on such a Figure. Indeed, discharges from the MOX Plant have little relevance to that Figure.

3.36. In the second place, the United Kingdom is confident that its strategy will ensure that the objectives of the Sintra Statement are achieved by 2020. The Government has undertaken urgently to review the strategy in the unlikely event that this appears not to be the case.

3.37. In the third place, the Sintra Statement envisages progressive and substantial reductions in discharges over a long term. This does not exclude the possibility that at some stage in that period there may be an increase, followed by further reductions.

3.38. Operational plants will necessarily have periods of relatively high and relatively low throughput. To require that discharges should always be lower in any period (quinquennial, annual or monthly) than in the preceding period would condemn plants to persistent reductions in production. In the case described above, such a requirement would fail to address situations where operational problems may result in artificially low production rates for temporary periods.

D. AUTHORISATION OF THE MOX PLANT

3.39. Although it does not take issue with the United Kingdom's account of the process of authorising installations at the Sellafield site,[41] Ireland advances in its Reply a fresh argument, based on new reports from Dr Barnaby and Mr MacKerron, who postulate a need for further feedstock for the MOX Plant, on the premise that it is to produce up to 120 tonnes of MOX fuel for a period of 20 years or more.

[40] Reply, Plate 1 (opposite p. 34).
[41] Counter-Memorial, Chapter 2, Part 1.

(i) Ireland's False Premise

3.40. On that premise, Ireland states that "[t]he activity authorised by the Decision of October 2001 is for the production of up to 120 tonnes of MOX fuel for a period of 20 years or more"[42] and that "[t]he planning application [to Copeland Borough Council in October 1992] sought authorisation for production of 120 tonnes of MOX fuel per annum for 20 years or more, a total of no less than 2400 tonnes of MOX fuel".[43] That is wrong. As the United Kingdom has pointed out in paragraphs 1.29 and 2.29 of its Counter-Memorial, among other places, the activity forming the subject of the Decision of 3 October 2001 is the manufacture of MOX fuel.[44] The grant of outline planning permission authorised the building of a MOX fuel production facility. Neither authorised a specified production for a specified period.

3.41. Ireland has taken the figure of 120 tonnes from information supplied by BNFL to the Environment Agency, for the purpose of the latter's assessment of the waste liable to arise from the MOX Plant each year.[45] The figure of 120 tonnes corresponds to the MOX Plant's nominal design capacity.[46] It is not the operating capacity of the MOX Plant. The operating capacity of the MOX Plant was assessed in the public domain version of the report by A.D. Little as being less than 100t/HM per year. No inference may be drawn that the MOX Plant was expected to operate at a specific capacity throughout its operational life.

3.42. Ireland has taken the figure of 20 years from the United Kingdom's response to Ireland's enquiry about the projected operational life of the MOX Plant. The United Kingdom explained that the projected life depends on a number of economic, commercial and operating factors but the MOX Plant is designed to have an operational life of at least 20 years.[47]

3.43. Neither the Secretaries of State's Decision of 3 October 2001 nor the grant of planning permission assumes that the MOX Plant would operate at its nominal design capacity for a period of 20 years. The volume and period of production at the MOX Plant will depend in the first place upon decisions taken by customers on the basis of their own commercial interests. As

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[42] Reply, paragraph 3.41.
[43] Reply, paragraph 3.44.
[44] See paragraph 74 of the Decision of 3 October 2001, Memorial, Volume III, Part Two, p. 241.
[45] Memorial, Volume III Part Two, p. 399, paragraph A4.108.
[46] **Annex 21**, paragraph 1.1; ADL Report, Memorial, Volume III, Part Two, p. 473, at 493, paragraph 1.4.3.
[47] Memorial, Volume III, Part One, p. 67. The figure tallies with the one given in the Environmental Statement, Memorial, Volume III, Part Three, p. 9.

is made clear in the White Paper on *Managing the Nuclear Legacy*, BNFL would require the approval of the government in order to conclude MOX supply contracts beyond the scope of the base reference case, and, of course, it would also require such approval before concluding any new THORP reprocessing contracts that would increase the volume of spent fuel planned to be reprocessed at THORP.[48]

3.44. Dr Barnaby and Mr MacKerron begin with the wrong premise in postulating a need for further feedstock, so that the MOX Plant will operate at its maximum nominal capacity for the whole of its design life. As Mr Rycroft explains, it is commercial and economic factors which will dictate the lifetime of the MOX Plant, not *vice-versa* .[49]

(ii) The Article 37 Opinion

3.45. At several points in its Reply, Ireland repeats its assertion that the Opinions of the European Commission under Article 37 of the Euratom Treaty did not address impacts on the Irish Sea but dealt only with impacts on human health.[50] Ireland does not respond to the point made in the Counter-Memorial[51] that the European Court of Justice has rejected the submission that the process under Article 37 is restricted in the way that Ireland suggests.

3.46. Ireland ignores the authorities to the contrary, set out in the Counter-Memorial. These include the Opinion of Mr Advocate General Slynn and the Judgment of the European Court of Justice in Case 187/87, *Saarland v Minister for Industry*,[52] recently reiterated by the same Court,[53] and the terms of the Commission Recommendation in accordance with which the United Kingdom made its submission for purposes of the Commission Opinion. That Recommendation required an assessment of the radiological consequences to the environment, as well as data on radioactivity in the air, the water and the soil together with information about food chains and monitoring programmes.[54]

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[48] Memorial, Volume III, Part Two, paragraph 5.21.
[49] Second statement of Mr Rycroft, paragraphs 31-36 (**Annex 42**).
[50] Reply, paragraphs 3.8, 3.45, 6.39, 6.60, 7.155.
[51] Counter-Memorial, paragraph 5.53 and note 59.
[52] [1988] ECR 5013 at 5034 of the Opinion and paragraph 13 of the judgment. See Counter-Memorial, paragraph 5.54, at note 59.
[53] Case C-29/99, *Commission v Council*, 10 December 2002, paragraph 79.
[54] Commission Recommendation 1991/4/Euratom of 7 December 1990 on the application of Article 37 of the Euratom Treaty, OJ 1991 L 6/16. See Counter-Memorial, paragraph 5.54, at note 58. See further Commission Recommendation 1999/829/Euratom of 6 December 1999 on the application of Article 37 of the Euratom Treaty, OJ 1999 L 324/23.

3.47. Ireland is in error, therefore, in stating that the enquiry is confined to effects on human health. In any event, Ireland's submission misses the point. What matters for the purposes of article 206 of UNCLOS is whether the submission made by the United Kingdom pursuant to Article 37 of the Euratom Treaty addresses the potential effect of the MOX Plant on the environment.[55] Plainly it did so. Even if the Commission itself had confined its enquiry to effects on human health, the fact would remain that the United Kingdom did assess the potential effects of the operation of the MOX Plant on the marine environment.

(iii) The Environment Agency's Proposed Decision of October 1998

3.48. In its consideration of the Environment Agency's Proposed Decision of October 1998, Ireland appears to accept one of the key conclusions of that document: that the radiation doses from the MOX Plant would be "of negligible radiological significance".[56] Ireland argues instead that the Proposed Decision did not constitute a detailed assessment of the effects of the MOX Plant. The evidence is to the contrary.

3.49. Three aspects of this matter merit emphasis:

1. On the one hand, Ireland appears to accept that the Proposed Decision contained detailed estimates of radiation exposure to members of the public arising from the MOX Plant. On the other hand, Ireland says that there was no detailed assessment of its effects. There is an obvious contradiction in this line of argument given that it is common ground that the only effects of the MOX Plant that are of relevance to this case are its radiological effects.

2. Ireland's prime complaint therefore appears to be the focus in the Proposed Decision on doses to humans. This has already been considered at paragraphs 2.30-2.33 above. It is particularly unsurprising that the Proposed Decision should focus on doses to humans given that it was prepared within the context of the justification exercise, which requires this focus. Ireland's complaint that the Proposed Decision should have considered THORP ignores the fact that THORP has been subjected to its own discrete regulatory process.

[55] Counter-Memorial, paragraph 5.53(1).
[56] Reply, paragraph 3.47. It says that this "may not be wrong".

3. It is wrong to say that the Proposed Decision relied on the same information as contained in BNFL's 1993 Environmental Statement. The Proposed Decision contained the Agency's own assessment of the radiological impact of the MOX Plant derived from calculations made by the United Kingdom's Ministry of Agriculture, Fisheries and Food.[57] It concluded – a conclusion that Ireland has not been able to challenge – that the MOX Plant would have a negligible effect on wildlife.

[57] Memorial, Volume III, Part Two, at pp. 385 (paragraph A3.13) and 397 (paragraph A4.95).

CHAPTER 4

JURISDICTION: UNCLOS AS A MIXED AGREEMENT

A. INTRODUCTION

4.1. From the outset of the present proceedings, the United Kingdom has drawn attention to a fundamental obstacle which arises from the fact that UNCLOS is a "mixed agreement": one to which the European Community is a party along with its Member States.[1] In the case of UNCLOS, as in the case of any other mixed agreement, it is necessary to determine whether specific rights and obligations appertain to the European Community or to its Member States.

4.2. Annex IX to UNCLOS makes it clear that it is for the European Community and not for its Member States to exercise rights and obligations under UNCLOS on matters for which competence has been transferred to the Community by those Member States.[2] That rule, prescribed by UNCLOS, is consistent with a well-established principle of European Community law whereby any rights or obligations that may arise under provisions of a mixed agreement which may affect the Community's common rules may be exercised only by the Community, in its relations with third States. Such rights and obligations may not be exercised by the Member States.[3]

4.3. To the extent that a provision in UNCLOS may affect the Community's common rules, the rights and obligations that apply as between Member States are the rules of Community law which give rise to the Community's exclusive external competence, implement the agreement internally on the part of the Community and require Member States to take all appropriate measures, whether general or particular, to ensure fulfilment of Community obligations and facilitate the achievement of the Community's tasks.[4] Those rights and obligations, which exist in European Community law, are justiciable between Member States only in the European Court of Justice.

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[1] For earlier statements of the United Kingdom's position on the issue, see ITLOS Written Response, p.3, paragraph 4, and pp.59-62, paragraphs 162 to 171; ITLOS Verbatim Record, 20 November 2001, AM, p. 23, line 47 to p. 24, line 20; and Counter-Memorial, paragraphs 4.19 to 4.20. For the Community's instrument of formal confirmation and competence declaration made upon the Community's accession to UNCLOS, see OJ 1998 L 179/128 (**Annex 47**).

[2] See article 4(3) of Annex IX, paragraph 4.12 below.

[3] See Case 22/70, *Commission v Council ("ERTA")*, paragraph 4.29 below.

[4] EC Treaty, Article 10. See paragraph 4.30 below.

4.4. In the present proceedings Ireland asserts its own rights and the United Kingdom's obligations under various provisions of UNCLOS in respect of which competence has been transferred to the Community. That is the case, for instance, with article 206 of UNCLOS on which Ireland relies in the context of its submissions on environmental assessments. Ireland pleads that the meaning of article 206 is "informed" by Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment.[5] That Directive is indeed informative in the context of article 206, although not in the sense for which Ireland contends. Directive 85/337/EEC was among the provisions listed in the Declaration made by the Community when depositing its instrument of confirmation of UNCLOS to identify a matter on which the Community has competence to the exclusion of the member States.[6]

4.5. From one perspective, this objection to Ireland's reliance on provisions of UNCLOS which are matters of Community competence might be viewed as a substantive defence. As a matter of substance, Ireland is not the bearer of the rights that it invokes; and the United Kingdom is not the bearer of the obligations. It appears, however, more illuminating to see the objection from the jurisdictional perspective. On the premise that the provisions on which Ireland relies are, so far as relevant, matters of Community competence, any rights and duties that Ireland could assert against the United Kingdom exist in European Community law and are justiciable only in the European Court of Justice. If a difference should arise as to whether those provisions are matters of Community competence, this would be justiciable only in the European Court of Justice (but faced with the manifest existence of relevant Community legislation establishing common rules, it is not easy to see how such a difference *could* arise).

4.6. Neither in its Memorial nor in its Reply does Ireland make any mention of the character of UNCLOS as a mixed agreement. In these circumstances it appears necessary to restate the United Kingdom's argument in some detail.

B. ANNEX IX TO UNCLOS

4.7. Article 305(1)(f) of UNCLOS provides that UNCLOS is open for signature by international organisations, in accordance with Annex IX, and articles 306 and 307 provide

[5] OJ 1985 L 216/40; see Reply, paragraph 5.4 (citing Memorial, paragraph 6.3).
[6] See paragraph 4.24 below.

for formal confirmation and accession by such organisations. Article 1.2(2) of UNCLOS provides that:

> "This Convention applies *mutatis mutandis* to the entities referred to in Article 305, paragraph 1 … (f), which become Parties to this Convention in accordance with the conditions relevant to each, and to that extent "States Parties" refers to those entities."

The Community became a Party to UNCLOS on 1 April 1998. Fourteen of the Member States of the Community are also Parties to UNCLOS.

4.8. The distribution of rights and obligations under UNCLOS between the Community and its Member States is governed by Annex IX to UNCLOS.

4.9. Article 1 of Annex IX defines an "international organisation" to mean an intergovernmental organisation constituted by States to which its member States have transferred competence over matters governed by UNCLOS, including the competence to enter into treaties in respect of those matters. This includes the European Community.

4.10. Article 2 provides that such an organisation may sign UNCLOS if a majority of its member States are signatories. It adds that at the time of signature an international organisation shall make a declaration specifying the matters governed by UNCLOS in respect of which competence has been transferred to that organisation by its member States and the nature and extent of that competence.

4.11. Article 3 provides that an international organisation's instrument of formal confirmation shall contain the undertakings and declarations required by articles 4 and 5.

4.12. Article 4 provides in part:

> "l. The instrument of formal confirmation or of accession of an international organisation shall contain an undertaking to accept the rights and obligations of States under this Convention in respect of matters relating to which competence has been transferred to it by its member States which are Parties to this Convention.
>
> 2. An international organisation shall be a Party to this Convention to the extent that it has competence in accordance with the declarations, communications of information or notifications referred to in article 5 of this Annex.
>
> *3. Such an international organisation shall exercise the rights and perform the obligations which its member States which are Parties would otherwise have under this Convention, on matters relating to which competence has been transferred to it*

by those member States. The member States of that international organisation shall not exercise competence which they have transferred to it." (emphasis added)

4.13. The remaining paragraphs of article 4 provide that participation of an international organisation in UNCLOS shall not entail any increase of the representation to which its member States which are States Parties would otherwise be entitled, and shall not confer any rights under UNCLOS on member States of the organisation which are not parties to UNCLOS. In the event of a conflict between the obligations of an international organisation under UNCLOS and its obligations under the agreement establishing the organisation, the former is to prevail.

4.14. Article 5 provides that the instrument of formal confirmation of an international organisation shall contain a declaration specifying the matters governed by UNCLOS in respect of which competence has been transferred to the organisation by its member States which are Parties to UNCLOS. Declarations, notifications and communications of information under this article are to specify the nature and extent of the competence transferred.

4.15. Article 6 provides that responsibility for failure to comply with obligations under UNCLOS shall be incumbent on Parties which have competence under article 5.

4.16. Article 7 provides that Part XV of UNCLOS concerning the settlement of disputes applies *mutatis mutandis* to any dispute between UNCLOS Parties, where one or more of the Parties are international organisations.

4.17. By these provisions, most particularly in Article 4(3), Annex IX requires that international organisations which are Parties to UNCLOS, such as the European Community, shall exercise the rights and perform the obligations which their Member States would otherwise have under UNCLOS, where competence has been transferred to such organisations by their member States. Member States of such international organisations are not to exercise the competence which they have transferred to those organisations.

4.18. These provisions of UNCLOS are compatible with European Community law. Indeed, they were drafted primarily with the European Community in mind.

C. THE COMMUNITY'S DECLARATION

4.19. When depositing its instrument of formal confirmation of UNCLOS in 1998 the European Community stated, in the second paragraph:

> "By depositing this instrument, the Community has the honour of declaring its acceptance, in respect of matters for which competence has been transferred to it by those of its Member States which are parties to the Convention, of the rights and obligations laid down for States in the Convention and the Agreement. The declaration concerning competence provided for in Article 5(1) of Annex IX to the Convention is attached."[7]

4.20. At the same time the European Community made a Declaration on its competence with respect to the matters governed by UNCLOS.[8]

4.21. The Declaration begins, so far as is material, by listing the Treaties establishing the European Communities, including the EC Treaty and the Euratom Treaty. It identifies the current Member States and states:

> "In accordance with the provisions referred to above, this declaration indicates the competence that the Member States have transferred to the Community under the Treaties in matters governed by the Convention and the Agreement.
>
> The scope and the exercise of such Community competence are, by their nature, subject to continuous development, and the Community will complete or amend this declaration, if necessary, in accordance with Article 5(4) of Annex IX to the Convention.
>
> The Community has exclusive competence for certain matters and shares competence with its Member States for certain other matters."[9]

4.22. The Community's Declaration then identifies matters for which the Community has exclusive competence. It observes that the Member States have transferred competence to the Community with regard to the conservation and management of sea fishing resources.

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[7] **Annex 47**.
[8] **Annex 47**.
[9] The Declaration here distinguishes between matters for which the Community has exclusive competence (e.g. conservation and management of sea fishing resources) and matters for which competence is shared in the sense that some aspects are wholly within the competence of the Community and others wholly within the competence of the Member States. There is in fact another category of agreements, or of provisions in agreements, for which competence is shared in a different sense: there may be joint liability for the fulfilment of certain obligations especially of a monetary nature. See, for instance, Case C-316/91, *Parliament v Council*, [1994] ECR 625, paragraph 29.

> "Hence in this field it is for the Community to adopt the relevant rules and regulations (which are enforced by the Member States) and, within its competence, to enter into external undertakings with third States or competent international organisation."

Accordingly, in the *Case concerning the Conservation and Sustainable Exploitation of Swordfish Stocks in the South-Eastern Pacific Ocean (Chile/European Community)*,[10] a special chamber of ITLOS was requested to adjudicate on the respective rights of the European Community and Chile under articles 116 to 119 of UNCLOS (along with certain ancillary provisions[11]). The bearer of rights and obligations under those articles was the European Community, although the relevant fishing activities were undertaken by vessels flying the Member States' flags.

4.23. Under the heading "*Matters for which the Community shares competence with its Member States*" the Declaration refers to the various provisions of UNCLOS including the provisions on maritime transport, safety of shipping and the prevention of marine pollution contained, *inter alia*, in Parts II, III, V, VII and XII of UNCLOS. It states that in relation to those matters:

> "[T]he Community has exclusive competence only to the extent that such provisions of the Convention or legal instruments adopted in implementation thereof affect common rules established by the Community. When Community rules exist but are not affected, in particular in cases of Community provisions establishing only minimum standards, the Member States have competence, without prejudice to the competence of the Community to act in this field. Otherwise competence rests with the Member States.
>
> A list of relevant Community acts appears in the Appendix. The extent of Community competence ensuing from these acts must be assessed by reference to the precise provisions of each measure, and in particular, the extent to which these provisions establish common rules."

4.24. The provisions specified in the Appendix to the Declaration include Directive 85/337/EEC on environmental assessments along with other instruments relevant to the protection of the marine environment. The list of relevant instruments in the Appendix is not, however, exhaustive. The Community made that clear in stating that the matter is subject to continuous development, and the Declaration is subject to being *completed* or amended in accordance with Article 5(4). The essential statement is that to the extent that provisions of UNCLOS may affect common rules, the Community has exclusive competence.

[10] ITLOS Case No 7, Order 2000/3 of 20 December 2000, ITLOS Reports 2000, p.148.
[11] Article 64 (co-operation in respect of highly migratory species), article 297(1)(b) (resolution of disputes about contravention of coastal States' laws) and article 300 (good faith and abuse of rights).

4.25. To assist further in the determination of its exclusive competence, the Community listed in its Declaration certain international conventions to which it is a party. The list included the Paris Convention for the Prevention of Marine Pollution from Land-based Sources and the amending Protocol thereto (now superseded by the OSPAR Convention) among other conventions relating to the protection of the marine environment. To the extent that such international agreements have led to the establishment of Community common rules which may be affected by provisions of UNCLOS, the Community has exclusive competence in respect of those provisions.

4.26. Since the deposit of that instrument there has been the continuous development foreseen at the time; and both before and after 1998 the Community has adopted common rules in respect of various matters which are not listed in the Declaration. Among these are Council Directive 96/29/Euratom laying down basic safety standards for the protection of the health of workers and the general public against the dangers of ionising radiation, including the requirement for practices to be justified[12] and Council Directive 90/313/EEC on freedom of access to information on the environment.[13]

4.27. By this Declaration, read with Annex IX to UNCLOS, the Community made it clear that the rights and obligations flowing from certain of the provisions of UNCLOS were those of the Community to the exclusion of the Member States. In particular, the provisions on maritime transport, safety of shipping and the prevention of marine pollution contained, *inter alia*, in Parts II, III, V, VII and XII of UNCLOS are matters of Community competence, to the exclusion of the competence of the Member States to the extent that such provisions affect common rules established by the Community.

D. DISTRIBUTION OF COMPETENCE IN MIXED AGREEMENTS

4.28. The principle set out in the Declaration reflects a well-established principle of European Community law. It is commonly summarised by the apothegm *in foro interno, in foro externo.*

[12] OJ 1996 L 159/114.
[13] OJ 1990 L 158/56.

4.29. Indeed, the Community's Declaration adopts the famous words of the European Court of Justice in Case 22/70, *Commission v Council ("ERTA")*:[14]

> "… each time the Community, with a view to implementing a common policy envisaged by the Treaty, adopts provisions laying down common rules, whatever form these may take, the Member States no longer have the right, acting individually or even collectively, to undertake obligations with third countries which affect those rules.
>
> As and when such common rules come into being, the Community alone is in a position to assume and carry out contractual obligations towards third countries affecting the whole sphere of application of the Community legal system.
>
> With regard to the implementation of the provisions of the Treaty the system of internal Community measures may not therefore be separated from that of external relations."

E. JURISDICTION OF THE EUROPEAN COURT OF JUSTICE

4.30. In relying on provisions of UNCLOS which are matters of Community competence, Ireland claims rights which are not its own and asserts obligations which are not those of the United Kingdom. In relation to third States, the European Community is the bearer of the relevant rights and obligations under UNCLOS. As between Member States, there are corresponding rules of Community law which require Member States to take all appropriate measures, whether general or particular, to ensure fulfilment of Community obligations and facilitate the achievement of the Community's tasks.[15] Those rights are justiciable between Member States only in the European Court of Justice.

4.31. Furthermore to the extent that provisions of international agreements impose obligations on the European Community, or confer rights on the Community, the European Court of Justice has jurisdiction to interpret such provisions. That Court has itself stated that every international agreement entered into by the Community becomes, from its entry into

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[14] [1971] ECR 263, paragraphs 17-19. The principle has been reaffirmed many times, including, in particular, the judgments in the recent "Open Skies" litigation: Cases C-467 to 469, C-471 to 472 and C-475 to 476/98, *Commission v Denmark, Sweden, Finland, Belgium, Luxembourg, Austria and Germany*, 5 November 2002.

[15] EC Treaty, Article 10.

force, an integral part of Community law.[16] In Case 104/81, *Hauptzollamt Mainz v Kupferberg*, the European Court of Justice drew the following corollary: [17]

> "It follows from the Community nature of such provisions that their effect in the Community may not be allowed to vary according to whether their application is in practice the responsibility of the Community institutions or of the Member States and, in the latter case, according to the effects in the internal legal order of each Member State which the law of that State assigns to international agreements concluded by it. Therefore *it is for the Court, within the framework of its jurisdiction in interpreting the provisions of agreements, to ensure their uniform application throughout the Community*".

4.32. The jurisdiction of the European Court of Justice to interpret and apply the provisions of treaties binding on the Community applies in the case of such provisions located in mixed agreements as in the case of treaties the entire terms of which are binding on the Community. The European Court of Justice reiterated this proposition in Case C-53/96, *Hermès*,[18] in Joined Cases C-300/98 and C-392/98, *Dior*[19] and in Case C-13/00, *Commission v Ireland*.[20]

4.33. The European Court of Justice has jurisdiction in principle to interpret and to apply such provisions in the event of a dispute between Member States.[21] It is more usual for the European Court of Justice to be called upon to interpret such provisions in proceedings instituted against a Member State by the Commission (either on its own initiative or on a complaint by a Member State) or in the event of a reference for preliminary ruling from a national court, which may be seised of a dispute between private parties. Indeed, the European Court of Justice and its Advocates General construe and apply agreements to which

[16] Case 181/73, *Haegeman v. Belgium*, [1974] ECR 449 at paragraph 5 and Opinion 1/91, [1991] ECR I-6079 at paragraph 37.
[17] [1982] ECR 364, paragraph 14.
[18] [1998] ECR I-3603, paragraph 33.
[19] [2000] ECR I-1344, paragraph 33.
[20] [2002] ECR I-2943, paragraphs 14-15.
[21] Article 227 of the EC Treaty provides: "A Member State which considers that another Member State has failed to fulfil an obligation under this Treaty may bring the matter before the Court of Justice. Before a Member State brings an action against another Member State for an alleged infringement of an obligation under this Treaty, it shall bring the matter before the Commission."

the Community is a party on a regular basis; and in several cases it has had occasion to apply UNCLOS.[22]

4.34. Ireland is therefore in error when stating that:

> "Disputes arising from UNCLOS are not within the jurisdiction of dispute resolution mechanisms contained in other treaties".[23]

F. ARTICLE 292 EC, ARTICLE 193 EURATOM AND ARTICLES 281 AND 282 UNCLOS

4.35. Member States of the European Community have expressly undertaken to refrain from submitting disputes concerning the interpretation or application of the EC Treaty or the Euratom Treaty to any method of settlement other than those for which those treaties provide. That obligation is incumbent on Member States under Article 292 of the EC Treaty and Article 193 of the Euratom Treaty.

4.36. As the Tribunal will recall, these provisions were invoked by the United Kingdom in the Counter-Memorial.[24] The rule which prohibits Member States from submitting disputes concerning the interpretation or application of the EC Treaty or the Euratom Treaty to any method of settlement other than those for which those treaties provide is the counterpart of the rule whereby provisions of UNCLOS on which Ireland relies are matters of Community competence. In so far as Ireland asserts rights under UNCLOS, independently of any rights under European Community law, Ireland asserts rights which are not its own and asserts obligations which are not those of the United Kingdom. As article 4(3) of Annex IX to

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[22] Case C-9/89, *Spain v Council*, [1990] ECR I-1383, Opinion of Advocate General Darmon, paragraphs 38-39; Case C-221/89, *R v Secretary of State ex parte Factortame* and Case C-246/89, *Commission v United Kingdom*, [1991] ECR I-3905, Opinion of Advocate General Mischo, paragraph 18; Case C-146/89, *Commission v United Kingdom*, paragraphs 2-4; Case C-286/90, *Anklagemyndigheden v Peter Michael Poulsen and Diva Navigation Corp*., [1992] ECR I-6019, paragraphs 11, 13, 25; Case C-379/92, *Matteo Peralta*, [1994], ECR I-3463; Opinion of Advocate General Lenz, paragraph 80; Case C-405/92, *Etablissements Armand Mondiet SA v Armement Islais SARL*, [1993] ECR I-6133, paragraphs 13, 14, 22; Case T-572/93, *Odigitria AAE v Council and Commission*, [1995] ECR II-2025, paragraph 32; Case C-177/95, *Ebony Maritime SA and Loten Navigation* Co v Prefetto della Provincia de Brindisi and Others, [1997] ECR I-1111, Opinion of Advocate General Jacobs, paragraph 27; Case C-62/96, *Commission v Hellenic Republic*, [1997] ECR I-6725, paragraph 9; Case C-162/96, *Racke v Hauptzollamt Mainz*, [1998] ECR I-3655, Opinion of Advocate General Jacobs, paragraph 74; Case C-62/96, *Commission v Hellenic Republic*, [1997] ECR I-6725, paragraphs 5 and 22; Case C-120/99, *Italy v Council*, [2001] ECR I-7997, paragraphs 26, 31; Case C-37/00, *Herbert Weber v Universal Ogden Services*, [2002] ECR I-2013, Opinion of Advocate General Jacobs, paragraph 7, judgment of Court, paragraph 8.

[23] Reply, paragraph 4.4.

[24] Counter-Memorial, paragraph 4.21.

UNCLOS confirms, the bearer of the relevant rights is the European Community; and in relation to third States, the bearer of the relevant obligations is the European Community. To the extent that the relevant rights and obligations under UNCLOS are borne by the European Community, the only rights that Ireland could properly assert, as against another Member State, are those which flow from the rules of Community law which require Member States to take all appropriate measures, whether general or particular, to ensure fulfilment of Community obligations and facilitate the achievement of the Community's tasks.[25] By reason of Article 292 of the EC Treaty and Article 193 of the Euratom Treaty, those rights are justiciable only in the European Court of Justice.

4.37. The two judges of ITLOS, on whose separate opinions in the *MOX Plant* case (Request for provisional measures) Ireland relies, appear not to have appreciated the significance of the fact that UNCLOS is a mixed agreement. They appear to have been under the impression that the issue presented by the present case arises from "a plurality of international norms covering the same topic" or "provisions of a treaty different from the Convention" containing equivalent or similar provisions.[26] That was not the case. The submission was that rights and obligations under UNCLOS are exerciseable only by the Community (in relation to third States) and not by Member States, where they derive from provisions which may affect common rules established by Community legislation.

4.38. If Judge Wolfrum had appreciated that UNCLOS is a mixed agreement, he could not have suggested that the Court of Justice has no jurisdiction to interpret UNCLOS (for it is plain that the Court of Justice is competent to construe mixed agreements).[27] Likewise, if he had appreciated that UNCLOS is a mixed agreement, he would not have seen the need to cite judgments showing that when a court has to construe two treaties with different wording, it must interpret each according to its language and context (that is of course true; but the problem presented by a mixed agreement is that of distributing rights and obligations derived from a single text as between the Community and its Member States).[28]

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[25] EC Treaty, Article 10.

[26] The ITLOS Order is at Memorial, Volume III, Part One, p.29, but without the Separate Opinions. These may be found on the ITLOS website and will be published in ITLOS Reports 2001.

[27] It is incontestable that the European Court of Justice has jurisdiction to interpret mixed agreements, including UNCLOS. See paragraphs 4.30 to 4.34 above.

[28] Judge Wolfrum referred to the judgments of the European Court of Human Rights in *Loizidou v Turkey,* Application 15318/89, Series A No 310, 23 March 1995, and of the European Court of Justice in Case 104/81, *Hauptzollamt Mainz v Kupferberg*, supra note 18. (The Judge's reference to paragraph 21 of the judgment in *Kupferberg* appears erroneous. The relevant words will be found at paragraphs 9 and 29 of the judgment.) There is one treaty, namely UNCLOS; but as it is a mixed agreement it is necessary to determine the distribution of competences as between the Community and the Member States.

4.39. As Judge Anderson observed in the *MOX Plant* case, the function of ITLOS was to take a *prima facie* view of the present Tribunal's jurisdiction, on the basis of limited materials, without prejudice to the ultimate decision of the present Tribunal. Quoting the words of Judge Lauterpacht in the *Interhandel* case, he observed that the question before ITLOS was simply to determine whether there was in existence an instrument which *prima facie* confers jurisdiction upon it and which incorporates no reservations obviously excluding its jurisdiction. He continued:

> "On the basis of the limited materials before it, the Tribunal has to take a *prima facie* view of the question of the arbitral tribunal's jurisdiction. Applying the test of Judge Lauterpacht, the question is whether article 282 amounts to a qualification 'obviously excluding' the jurisdiction of the arbitral tribunal. The same question arises in regard to article 283. The Tribunal has given a negative answer to both these questions. Nonetheless, I retain doubts, on the basis of the factual materials presented, about some of the reasoning, notably that contained in paragraphs 52 and 60 of the Order, and thus the conclusions in paragraphs 61 and 62."[29]

4.40. Judge Anderson is not alone in recognizing the jurisdictional difficulty that arises from the fact that UNCLOS is a mixed agreement. The Commission of the European Communities has also expressed doubts on the point, both immediately before the ITLOS hearing[30] and subsequently. In an answer to a written question in the European Parliament, the Commission stated:

> "The Commission services are aware of the action of Ireland against the United Kingdom before the UN Tribunal of Law of the Sea and the action against the United Kingdom referred by Ireland to an arbitral tribunal under the OSPAR Convention. In this respect, the Commission would like to recall that under articles 292 (EC) and 193 (Euratom) any dispute between two Member States concerning the application of interpretation of the Treaties should not be submitted to any method of settlement other than those provided by the Treaties". [31]

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[29] See note 28 above.

[30] At the oral hearing on 20 November 2001 the United Kingdom requested Ireland to disclose to ITLOS the content of the Commission's letter of the preceding day. Ireland declined to do so. It is possible that ITLOS would have understood the jurisdictional objection more clearly, and in particular that Judges Wolfrum and Treves would not have expressed their Opinions as they did, had they been informed of the position adopted by the European Commission: ITLOS, public hearing, 20 November 2001, PM, page 27, lines 22-32 (http://www.itlos.org/start2_en.html).

[31] EP Written Question E-3166/01 by Lord Inglewood to the Commission: OJ 2002 C 160 E/62. The Commission's response was given by Mrs de Palacio on 28 January 2002.

The Commission's sentiments have been echoed by Allan Rosas, now a judge of the European Court of Justice. In an article entitled "The European Union and International Dispute Settlement", he stated that the present proceedings:

> "may pose a problem, given that the EC, too, is a party to UNCLOS, which is thus part of the Community legal order".[32]

4.41. Article 281(1) of UNCLOS provides that:

> "If the States Parties which are parties to a dispute concerning the interpretation or application of this Convention have agreed to seek settlement of the dispute by a peaceful means of their own choice, the procedures provided for by this Part apply only where no settlement has been reached by recourse to such means and the agreement between the parties does not exclude any further procedure."

Article 282 of UNCLOS provides that:

> "If the States Parties which are parties to a dispute concerning the interpretation or application of this Convention have agreed, through a general, regional or bilateral agreement or otherwise, that such a dispute shall, at the request of any party to the dispute, be submitted to a procedure that entails a binding decision, that procedure shall apply in lieu of the procedures provided for in this part, unless the parties to the dispute otherwise agree".

Referring to the rule now embodied in Article 292 of the EC Treaty, the authors of the *Virginia Commentary* observe that:

> "the text of article 282 [of UNCLOS] reflects the prevailing view that parties would normally prefer to have the dispute settled in accordance with a procedure previously agreed upon by them".[33]

4.42. The United Kingdom and Ireland have agreed, through the EC and Euratom Treaties, that any dispute concerning the interpretation or application of provisions of an international agreement to which the Community is a party and for which the Community has exclusive competence shall not be submitted to any method of settlement other than those for which those treaties provide. Those treaties prescribe various procedures entailing a binding decision. Among them are the procedures for the Commission to institute proceedings

[32] In *International Organisations and International Dispute Settlement*, ed. Laurence Boisson de Chazournes, Cesare P.R. Romano and Ruth Mackenzie, 2002, 49-71, quotation from note 21.
[33] Vol V, pp. 25-26, paragraph 282.1.

against one Member State, in response to a complaint from another; or for one Member State to institute proceedings against another directly.[34]

G. IRELAND'S RELIANCE ON PROVISIONS FALLING WITHIN COMMUNITY COMPETENCE

4.43. The substance of Ireland's dispute with the United Kingdom falls into three parts.

4.44. The first part of Ireland's case is the claim that the United Kingdom failed to make an appropriate environmental impact assessment for the MOX Plant. Ireland pleads that by this alleged failure the United Kingdom infringes article 206 of UNCLOS[35] and relies in this context on Directive 85/337/EEC (as amended by Directive 97/11/EEC[36]).

4.45. In so far as article 206 of UNCLOS may require States Parties to make appropriate environmental impact assessments, it affects the Community's rules, established in particular by Directive 85/337/EEC. That appears from the Declaration on Community competence appended to the Community's instrument of formal confirmation of UNCLOS. Accordingly, the rights and obligations under article 206 of UNCLOS, on which Ireland relies, are not exercisable by Member States *inter se*: they are exercisable only by the European Community in relation to third States.[37] Any rights and obligations that may exist between Member States, as the counterpart of the Community's rights and obligations under UNCLOS, are creatures of European Community law and can be upheld only in the European Court of Justice.

4.46. The second part of Ireland's case is the claim that the United Kingdom failed to co-operate as required by articles 123 and 197 of UNCLOS.[38] The allegations of non-co-operation are expressed very generally; but they appear to have seven aspects, namely co-

[34] Paragraphs 4.30-4.34 above.
[35] Memorial, Chapter 7, especially paragraph 7.7; cf. Amended Statement of Claim, paragraph 31. Memorial, paragraphs 7.20-7.21 and 7.58. Ireland argues that Directive 85/337/EEC forms part of the context for the interpretation of article 206 of UNCLOS, within the meaning of article 31(1) of the Vienna Convention on the Law of Treaties; that Directive 85/337/EEC is among the "and other rules of international law not incompatible with this Convention" to be applied under article 293(1) UNCLOS; and that Directive 85/337/EEC provides evidence of the environmental impact assessment to be regarded as "practicable" within the meaning of article 206.
[36] OJ 1997 L 73/15.
[37] It is not, of course, suggested that the European Community is in breach of any such obligation in relation to third States.
[38] Amended Statement of Claim, paragraph 33; Memorial, Chapter 8, especially paragraphs 8.9 and 8.42.

operation in respect of: (i) the MOX Plant consultation; (ii) failure to supply of full and unedited copies of the PA and ADL Reports; (iii) failure to suspend the authorisation of the MOX Plant pending the outcome of the OSPAR arbitration; (iv) environmental impact assessment; (v) marine transports; (vi) the terrorist threat; and (vii) protecting the marine environment.

4.47. If articles 123 and 197 of UNCLOS did impose an obligation to co-operate in respect of the provision and quality of environmental statements under environmental impact assessments, they would affect the common rules established by Directive 85/337/EEC. The relevant rights and obligations under UNCLOS would be those of the Community and not of its Member States.

4.48. Any obligation under articles 123 and 197 of UNCLOS to supply full and unedited copies of the PA and ADL Reports would affect the common rules established by Directive 90/313/EEC on freedom of access to information on the environment[39] and Directive 96/29/Euratom on the justification for certain nuclear activities.[40] Indeed, Ireland relies on those common rules to "inform" the meaning of UNCLOS. Their relevance is that they demonstrate that the relevant rights and obligations under UNCLOS are those of the Community and not of its Member States.

4.49. The remaining arguments that Ireland advances on the basis of articles 123 and 197 of UNCLOS do not appear to rely on provisions that may affect common rules established at the Community level, save in the case of the allegation of non-co-operation with respect to the protection of the marine environment. The competence of the European Community in respect of the protection of the marine environment is extensive. It is established by a series of instruments laying down common rules including (in addition to Directive 85/337/EEC) Directive 76/464/EEC on pollution caused by certain dangerous substances discharged into the aquatic environment;[41] Directive 84/360/EEC on the combating of air pollution from industrial plants;[42] Directive 82/501/EEC on the major-accident hazards of certain industrial activities;[43] and Directive 93/75/EEC concerning minimum requirements for vessels bound for or leaving Community ports and carrying dangerous or polluting goods[44] as amended by

[39] OJ 1990 L 158/56.
[40] Amended Statement of Claim, paragraphs 17, 34 (number misprinted as 96/239): OJ 1996 L159/114; Memorial, paragraphs 8.105-8.107. Reference is also made to Council Directive 80/836/Euratom, OJ 1980 L246/1 which has however been repealed.
[41] OJ 1976 L 129/23.
[42] OJ 1984 L 188/20.
[43] OJ 1982 L 230/1.
[44] OJ 1993 L 247/19.

Directive 98/55/EC[45] and Commission Directive 98/74/EC.[46] To the extent that articles 123 and 197 of UNCLOS prescribe co-operation in respect of matters governed by those Community instruments, it is for the Community and not for the Member States to exercise the rights and obligations deriving from those provisions of UNCLOS.

4.50. The third part of Ireland's case is the claim that the United Kingdom failed to take measures to prevent, reduce and control pollution of the marine environment from land-based sources, from vessels and through the atmosphere, contrary to articles 194, 213 and 222 of UNCLOS.[47] In this context, as in the context of Ireland's arguments based on articles 123 and 197, account must be taken of the Community's extensive competence in respect of the protection of the marine environment. To the extent that articles 194, 207, 211, 213, 217 and 222 of UNCLOS affect the Community's common rules on the protection of the marine environment, it is for the Community and not for the Member States to exercise the rights and obligations deriving from those provisions of UNCLOS.

4.51. These conclusions are consistent with European Community law. By reference to article 4(3) of Annex IX and articles 281 and 282 of UNCLOS, the United Kingdom contends that the Tribunal does not have jurisdiction in respect of the matters identified in the preceding paragraphs.

[45] OJ 1998 L 215/65.
[46] OJ 1998 L 276/7.
[47] See paragraphs 5.4-5.6 below.

CHAPTER 5

APPLICABLE LAW AND RELATED QUESTIONS OF JURISDICTION

5.1 In paragraph 4.1 of its Reply, Ireland affirms that this dispute is limited to questions concerning the interpretation and application of UNCLOS and that it has "not invited the Arbitral Tribunal to exercise jurisdiction under any other international agreement, pursuant to Article 288(2) of UNCLOS".[1] Nevertheless, under the guise of applicable law, Ireland goes on to urge the Tribunal to apply other rules of international law. In so doing, it presents to the Tribunal for adjudication issues which raise fundamental questions concerning the interpretation or application of other international agreements. It relies for this purpose on articles 293(1) and 297(1)(c) of UNCLOS. It also refers to "the *renvoi* to applicable international rules and standards",[2] citing for this purpose articles 213 and 222 of UNCLOS. In each case, however, it fails to address what is actually required by these provisions.

A. THE SCOPE OF IRELAND'S COMPLAINT

5.2 As set out in its Counter-Memorial,[3] the United Kingdom considers that non-UNCLOS rules of international law may be relevant to a dispute within the jurisdiction of a Part XV court or tribunal in a number of ways, notably, where they arise incidentally in the determination of a dispute concerning the interpretation or application of UNCLOS or where they are to be taken into account when interpreting UNCLOS in accordance with articles 31 and 32 of the Vienna Convention on the Law of Treaties. Other rules of international law may also be relevant to the determination of a dispute concerning the interpretation or application of UNCLOS where the specific provisions of UNCLOS that form the basis of the complaint themselves expressly require that other non-UNCLOS rules of international law be taken into account and applied within the framework of UNCLOS. The clearest examples of such an approach are articles 74 and 83 of UNCLOS, which respectively address delimitation of the exclusive economic zone and the continental shelf between States with opposite or adjacent coasts. Paragraph 1 of these articles provides that delimitation "shall be effected by agreement on the basis of

[1] Reply, paragraph 4.2.
[2] Reply, paragraphs 5.22-5.37.
[3] Counter-Memorial, paragraph 4.31.

international law, as referred to in Article 38 of the Statute of the International Court of Justice". In each of these articles, paragraph 4 provides that "[w]here there is an agreement in force between the States concerned, questions relating to the delimitation of the [exclusive economic zone] [continental shelf] shall be determined in accordance with the provisions of that agreement". By their express terms, therefore, where articles 74 and/or 83 form the basis of the case, other non-UNCLOS rules of international law must be taken into account and applied within the framework of UNCLOS.

5.3 As this illustrates, whether non-UNCLOS rules of international law are to be taken into account and applied within the framework of UNCLOS will hinge on the terms of the provisions of UNCLOS which form the basis of the case in issue. The initial exercise, as regards the law to be applied in this case, is thus to identify those provisions of UNCLOS on which Ireland's complaints are based.

5.4 In the opening paragraph of its chapter on jurisdiction, Ireland notes twelve articles of UNCLOS which it says form the basis of its case, viz, articles 123, 192, 193, 194, 197, 206, 207, 211, 212, 213, 217 and 222. This list is repeated in the opening paragraph of the chapter on applicable law. A close examination of Ireland's allegations indicates, however, that its complaint now rests on a rather narrower foundation. As regards article 211, for example, Ireland now states that all such allegations are withdrawn.[4] As regards article 217, Ireland now states that it "does not seek any declaration of breach of UNCLOS, Article 217" and that "[n]o application was made for relief in respect of a breach of Article 217".[5] References to article 217, it seems, are simply incidental to and subsumed within Ireland's allegations on co-operation.

5.5 As regards pollution, an examination of Ireland's allegations discloses complaints based on alleged violations of articles 194, 213 and 222.[6] Although general reference is made to articles 192, 193, 207 and 212, no independent allegation of breach is raised in respect of these provisions. Such breach of these provisions as is alleged is said to be consequential upon the alleged breach of other provisions of UNCLOS.[7]

5.6 A close review of Ireland's case thus identifies specific allegations of breach of six provisions of UNCLOS, namely, articles 123, 194, 197, 206, 213 and 222. It is on the allegations of breach of these provisions that Ireland's case ultimately rests. It is here,

[4] Reply, paragraphs 1.11 (note 5), 8.19 and 9.8.
[5] Reply, paragraphs 9.8 and 8.19 respectively.
[6] See, in this regard, Counter-Memorial, paragraphs 7.29–7.32.
[7] Reply, paragraph 8.18.

therefore, in the first instance, that attention needs to be focused for purposes of considering what law is to be applied in this case.

5.7 Article 123 concerns co-operation of States bordering enclosed or semi-enclosed seas. It makes no reference to international law. There is no suggestion in this article that any non-UNCLOS rules of international law are to be incorporated into or applied within the framework of UNCLOS. The same is true for article 197, which also concerns co-operation. Although it requires States to co-operate in formulating and elaborating international rules, there is nothing in the article which purports to incorporate any such rules as may be elaborated into UNCLOS or require their application in the course of UNCLOS dispute settlement.[8]

5.8 Article 206 deals with the assessment of potential effects of activities, requiring, in certain circumstances, that the effects of certain activities be assessed. Once again, the article makes no reference to other non-UNCLOS rules of international law. Nor is there any suggestion that such rules are to be incorporated into and applied as part of UNCLOS.

5.9 Articles 194, 213 and 222 of UNCLOS form the central basis of Ireland's allegations on pollution. Article 194 addresses the measures that are necessary to prevent, reduce and control pollution of the marine environment. There is nothing, however, either on the face of this article or implied in its terms to suggest that non-UNCLOS rules of international law are incorporated into and applied as part of UNCLOS.

5.10 Much of Ireland's case for the application of non-UNCLOS rules of international law in these proceedings thus hinges on articles 213 and 222. It is these provisions, and these provisions only, that Ireland contends contain a "*renvoi* to applicable international rules and standards".[9] It is significant, however, that, in this part of its Reply, Ireland formulates its case on the relevance of other rules of international law rather differently. For example, in its general discussion on applicable law, Ireland, in paragraph 5.8 of its Reply, states that article 293(1) of UNCLOS "requires the Tribunal not to consider or to take account of, but to *apply* 'other rules of international law', that is treaties and customary international law compatible with UNCLOS."[10] In its discussion

[8] See paragraphs 7.7-7.10 below.
[9] Reply, paragraphs 5.22 – 5.37.
[10] Emphasis in the original.

of articles 213 and 222 and the "*renvoi* to applicable international rules and standards", however, Ireland retreats from this formulation and contends that the determination by the Tribunal of whether or not there has been compliance with articles 213 and 222 "must entail consideration of those other international rules and practices" referred to in these articles.[11] What began as a general contention in favour of the application of other non-UNCLOS rules of international law in the context of this case thus shifts to the proposition that the Tribunal must consider such other relevant rules of international law as are referred to in articles 213 and 222 of UNCLOS.

5.11 In the United Kingdom's contention, this latter formulation more accurately reflects the language of articles 213 and 222. In parallel terms, these articles provide *inter alia* that States shall take "measures necessary to implement applicable international rules and standards". In the face of allegations, as in this case, that a State has failed to take measures necessary to implement applicable international rules and standards, the Tribunal must of course identify the existence of such rules and standards and may have regard to them. The question of whether a State has taken measures necessary to implement such rules and standards does not, however, either invite or permit the Tribunal to apply such rules or standards. Rather, it requires the Tribunal to assess whether, within a margin of appreciation that must necessarily be allowed to States when it comes to the domestic implementation of international rules, the respondent State has taken measures necessary to implement those rules.

5.12 The measures taken by the United Kingdom in fulfilment of its obligations under articles 213 and 222 to implement international rules were described in detail in Chapter 2 of the United Kingdom's Counter-Memorial as well as in the report by Ian Parker annexed to that pleading.[12] What is relevant for present purposes is that nothing in articles 213 or 222 requires or mandates the incorporation into and application as part of UNCLOS of other non-UNCLOS rules of international law.

5.13 As this highlights, there is nothing in any of the six core provisions of UNCLOS which form the basis of Ireland's complaint that supports the proposition that the Tribunal is required to apply other non-UNCLOS rules of international law in the context of this case. On the contrary, the plain meaning of all the provisions is at odds with this approach. The wider context within which these provisions are found – UNCLOS as a whole – also militates against this view. As is cogently illustrated by articles 74 and 83

[11] Reply, paragraph 5.24.
[12] See also Counter-Memorial, at paragraphs 7.151–7.156.

of UNCLOS, where the drafters of the treaty wished to incorporate other rules of international law and require their application within the framework of UNCLOS, they did so expressly. This is not the position with those articles which form the basis of Ireland's complaint. Nor, for that matter, is it the case with all the other ancillary provisions of UNCLOS cited by Ireland for good measure. By reference to the plain language of the provisions on which Ireland relies, there is no basis for the Tribunal to apply other non-UNCLOS rules of international law in this case.

B. ARTICLE 293(1)

5.14 Eschewing close reference to the specific provisions on which it founds its claim, Ireland relies heavily on the language of article 293(1) of UNCLOS in support of its case for enlarged jurisdiction. This provides that a Part XV court or tribunal "shall apply this Convention and other rules of international law not incompatible with this Convention".

5.15 As has been shown, various substantive provisions of UNCLOS do indeed refer to other non-UNCLOS rules of international law and, in a few instances, always expressly, require their application. Questions of international law necessitating recourse to secondary rules of international law, such as those concerning State responsibility or the interpretation of treaties, may also arise incidentally in the course of proceedings concerning the interpretation or application of UNCLOS. Article 293(1) reflects this and ensures that there is no dispute about the competence of a Part XV court or tribunal to apply such other rules of international law in appropriate cases. It also addresses proceedings in which a Part XV court or tribunal has jurisdiction in accordance with article 288(2) in respect of a dispute concerning the interpretation or application of a non-UNCLOS agreement. Article 293(1), in other words, mandates the application of other rules of international law where this is expressly required by the substantive provisions of UNCLOS in issue, where it involves recourse to secondary rules of international law incidentally in the determination of a dispute, or when this is required by the expanded jurisdiction of the court or tribunal pursuant to article 288(2). It ensures that there will be symmetry between the jurisdiction of a Part XV court or tribunal and the law that it is required to apply. It does not mandate the wholesale incorporation into and application as part of UNCLOS of every far-flung rule of customary or conventional international law merely by reference to a test of compatibility with UNCLOS.

C. ARTICLE 297(1)(C)

5.16 Ireland seeks to bolster its argument in favour of the application of non-UNCLOS rules of international law by reference to article 297(1)(c), contending that this provision:

> "affirms the jurisdiction of the relevant tribunal in cases concerning the interpretation or application of UNCLOS in claims relating to the marine environment which involve contravention of certain international rules and standards established through a competent international organisation or diplomatic conference. Obviously the competent tribunal must consider, and apply, those international rules and standards."[13]

5.17 This is a flawed interpretation of article 297(1)(c), as is readily apparent from its terms. Article 297(1)(c) provides:

> "1. Disputes concerning the interpretation or application of this Convention with regard to the exercise by a coastal State of its sovereign rights or jurisdiction provided for in this Convention shall be subject to the procedures provided for in section 2 in the following cases:
> ...
> (c) when it is alleged that a coastal State has acted in contravention of specified international rules and standards for the protection and preservation of the marine environment which are applicable to the coastal State and which have been established by this Convention or through a competent international organisation or diplomatic conference in accordance with this Convention."

5.18 In reading sub-paragraph (c), Ireland ignores the chapeau of the provision. This deals with disputes concerning the interpretation or application of UNCLOS (1) with regard to the exercise (2) by a coastal State (3) of its sovereign rights or jurisdiction provided for in UNCLOS.

5.19 The term "coastal State" is a term of art in UNCLOS. Various terms are used throughout the Convention to refer to States, or categories of States, in the context of particular, specialised provisions. There are, for example, references to "flag States", "archipelagic States", "land-locked States", "geographically disadvantaged States", "port

[13] Reply, paragraph 5.14.

States" and many more.[14] "Coastal State" is one such descriptor. It is used in specific articles of UNCLOS to address the jurisdiction, rights and duties of certain States in particular contexts.[15]

5.20 Article 297(1)(c), which concerns limitations on the application of the compulsory dispute settlement procedures of Part XV and in no sense expands that application, is concerned with the exercise "by a coastal State" of its sovereign rights or jurisdiction "provided for in this Convention". The starting point, when construing this provision, is thus to look to those provisions setting out the sovereign rights and jurisdiction of coastal States in UNCLOS. There are many. However, in no case is any such provision referred to by Ireland or relied upon as a basis of its allegations against the United Kingdom. The present dispute is not a dispute concerning the interpretation or application of UNCLOS "with regard to the exercise by a coastal State of its sovereign rights or jurisdiction provided for in [UNCLOS]" within the scope of article 297(1).

5.21 There are further considerations which militate against the interpretation advanced by Ireland. This case in not concerned with allegations "that a coastal State has acted in contravention of specified international rules and standards for the protection and preservation of the marine environment" within the meaning of sub-paragraph (c) of article 297(1). Even if it were, the "specified international rules and standards" invoked by Ireland in these proceedings go a very considerable way beyond those "established by this Convention or through a competent international organisation or diplomatic conference in accordance with this Convention" as is also required by sub-paragraph (c) of article 297(1). Article 297(1)(c) is concerned to secure the jurisdiction of a Part XV court or tribunal in the circumstances specified notwithstanding that a coastal State may assert that it has been acting within its exclusive territorial jurisdiction or in exercise of its sovereign rights.

5.22 The *raison d'être* of article 297(1) is explained in the *Virginia Commentary* in terms that have a wider relevance as follows:

> "The acceptance of many participants in the Third U.N. Conference on the Law of the Sea of the provisions for the settlement of disputes relating to the interpretation of the Law of the Sea Convention was, from the very beginning, conditioned upon the exclusion of certain issues from the obligation to submit

[14] See further *Virginia Commentary*, Vol. II, p.43, paragraph 1.25.
[15] For example, article 56 addresses the rights, jurisdiction and duties of the "coastal State" in the exclusive economic zone *inter alia* as regards the protection and preservation of the marine environment.

> them to a procedure entailing a binding decision. There was no doubt that the basic obligations of Part XV, section 1, relating to the settlement of disputes by means agreed upon by the parties to the dispute (articles 279 to 284) should apply to all disputes arising under the Convention. Beyond that, however, there was some opposition to an unlimited obligation to submit a dispute to a procedure entailing a binding decision. When Ambassador Reynaldo Galindo Pohl (El Salvador) introduced the first general draft on the settlement of disputes at the second session of the Law of the Sea Conference (1974), he immediately highlighted the need for exceptions from obligatory jurisdiction with respect to 'questions directly related to the territorial integrity of States.' Otherwise, a number of States might have been dissuaded from ratifying the Convention or even signing it."[16]

5.23 During the negotiating process on this article, the *Commentary* notes that many States "insisted that the hard-won exclusive jurisdiction of the coastal States in the economic zone should not be jeopardised by its submission to third party adjudication."[17] Article 297(1) was thus a compromise that sought to bring within the scope of UNCLOS dispute settlement certain aspects of the exercise by a coastal State of its sovereign rights or jurisdiction as had been provided for in the Convention that would not otherwise have been subject to the jurisdiction of a Part XV court or tribunal. Ireland's reliance on article 297(1)(c) in support of its argument for the application of non-UNCLOS rules of international law in this case simply has no foundation.

5.24 The extract just quoted from the *Virginia Commentary* is of wider relevance insofar as it highlights the concern of many of the States participating in the drafting conference with an overly broad dispute settlement competence. If there was concern over such matters then, the United Kingdom ventures to suggest that this would now be turning to outright alarm in the face of the arguments Ireland is advancing which would seek to turn UNCLOS dispute settlement into a wider procedure of compulsory dispute settlement of more general application, the only test of competence of which would be some remote connection with a substantive provision of UNCLOS.

[16] *Virginia Commentary*, Vol. V, pp.87-88, paragraph 297.1.
[17] *Virginia Commentary*, Vol. V, p.93, paragraph 297.6.

D. INTERPRETATION IN THE LIGHT OF, AND *RENVOI* TO, OTHER RULES OF INTERNATIONAL LAW

5.25 One last element of Ireland's applicable law argument requires comment. There is a thread that runs throughout the applicable law chapter in favour of a "dynamic" interpretation of UNCLOS. Under the heading *The Interpretation of UNCLOS Rules in the Light of 'Other Rules of International Law'*, for example, Ireland refers to the observation of the International Court of Justice in its 1970 *Namibia* Advisory Opinion to the effect that "an international instrument has to be interpreted and applied within the framework of the entire legal system prevailing at the time of the interpretation".[18] Ireland goes on to say that "[i]t is now over two decades since the UNCLOS was elaborated."[19] Under the heading *UNCLOS and the* Renvoi *to Applicable International Rules and Standards*, Ireland proceeds further to say that "[t]he Convention could not be the dynamic instrument it is if the precise content of the obligation were elucidated in its text, fixed and incapable of development without formally negotiated amendment."[20]

5.26 Quite apart from questions of interpretation of articles 213 and 222 addressed above, Ireland's arguments under this head are flawed. The *Namibia* Advisory Opinion was concerned with an instrument that had been drawn up some 50 years previously at a time before the emergence of *apartheid* in South Africa and its extension to what was then South West Africa. The dicta of the case cited by Ireland, although relied upon on occasion by courts since, has been chiefly applied in cases concerning fundamental principles of human rights of very many years standing, with the few judicial statements outside of this context being found in individual opinions rather than in judgments of a court.

5.27 Ireland seeks to push the dispute settlement provisions of the Convention beyond the limits intended by the States Parties. As the United Kingdom said in its Counter-Memorial, the correct application of the provisions of Part XV on the settlement of disputes could be crucial for universal participation in UNCLOS.[21]

[18] Reply, paragraph 5.15.
[19] Reply, paragraph 5.15.
[20] Reply, paragraph 5.25.
[21] Counter-Memorial, paragraph 1.3.