

LEGISLATION NOTE

The Nuclear-Test-Ban Act 1999 and Comprehensive Nuclear-Test-Ban Treaty 1996: the Environmental Protection Offered

Introduction

The Nuclear-Test-Ban Act 1999 ("the Act") incorporates the Comprehensive Nuclear-Test-Ban Treaty 1996 ("the Treaty")¹ into New Zealand domestic law. The Act follows the Treaty's structure and reflects the Treaty's contents. However, as New Zealand neither tests nuclear weapons nor participates in such tests, the Act is merely a political pledge of affirmation of the Treaty and a fulfilment of its international obligations. However, the Treaty may have positive effects on the environment by barring testing and reducing the chance of nuclear war.

This article examines the issues arising from the Act, and the extent to which the Act and the Treaty protect the environment. Once the environmental effects of nuclear testing are summarised, the note considers the Treaty, its purpose and its relationship with the New Zealand Act. When considering a selection of legal issues that arise from the Act itself, the basic prohibitions and extraterritorial nature of the legislation are examined. Finally, the nature of this Act is compared to similar New Zealand law (viz the New Zealand Nuclear Free Zone, Disarmament and Arms Control Act 1987, the Customs Export Prohibition Order 1996, and the Chemical Weapons (Prohibition) Act 1996).

The Environmental Impact and Effects of Nuclear Testing

Between 1945 and 1995 there were more than 2,000 nuclear tests, the equivalent of one every nine days.² Nuclear tests have been conducted underground, underwater, and atmospherically. The Treaty effectively concerns only

1 The full text of the Treaty is available at the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organisation's website at <<http://pws.ctbto.org/>>.

2 See Greenpeace at <<http://www.greenpeace.org/~nuclear/>>.

underground testing as other treaties prohibit atmospheric and underwater testing.³

Underground testing is considerably less environmentally harmful than atmospheric testing due to the containment effect of the earth.⁴ Test sites are usually uninhabited by humans,⁵ and often plant and animal life is more limited than in other areas. Thus, an anthropocentric solution would be to contain the effects of the explosion to this area. That is what underground testing essentially does.

The greatest environmental impact from underground testing is from the seismic and local shock wave effects. Up to 1 per cent of the energy that is released travels as a seismic wave. This can cause ground movements, subsidence and sub-marine slides, and collapse crater formations within a few kilometers of the detonation point. The waves may contribute to aftershocks but, despite early concerns, the triggering of a major earthquake is unlikely.⁶

The fission process of an explosion forms large amounts of various radioactive products. In contrast to atmospheric testing, these products are incorporated into vitrified rock as the vaporized rock cools. Between 75 per cent (at one minute after detonation) and 99.9 per cent of fission products are estimated to be contained in this way.⁷ Generally, these trapped products decay where they are formed. Some "venting" may occur at some stage. This would be a concern as the atmospheric distribution of radioactive materials is dangerous. This danger led to the Partial Test Ban in 1963. However, this release through venting is usually too small to pose any danger.⁸

3 See the Treaty on the Prohibition of Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Seabed and Ocean floor and in the Subsoils thereof (Washington, London and Moscow, 1 February 1971) and the Treaty Banning Nuclear testing in the Atmosphere, in Outer Space and Underwater (Moscow, 5 August 1963).

4 Tests are carried out at depth of up to 8000 feet.

5 McEwan, A.C., "Environmental Effects of Underground Nuclear Explosions" in Goldblat & Cox (eds), *Nuclear Weapons Tests: Prohibition or Limitation*, Oxford University Press (1988) ch IV. McEwan's study was referred to in evidence in The International Court of Justice's Advisory Opinion concerning a Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in *Nuclear Tests (New Zealand v France)* 1974 ICJ 457 (1974) given on 22 September 1995.

6 Ibid.

7 Ibid, 82.

8 However, there have been problems in the past. In the US Baneberry Test on 18 December 1970, radioactive material spread to Canada requiring 600 people to be decontaminated by shower. The effect of plant life was observable for up to two years (ibid., 85 quoting W.A. Rhodes, in White, M.G. & Dunaway, P.B. (eds), *Selected Environmental Plutonium Research Reports of the NAEG*, NVP-192, Vol 1, Holmes and Narver Inc., Mercury, NV (June 1978) 127-141.

Despite the danger of groundwater flows carrying radioactive material, no observable adverse effects due to this process have been observed.⁹

The effects of underground testing are contained given the scale of energy release.¹⁰ Venting and associated problems affect the environment but adverse effects are reported to be minimal. Tests must be carefully managed and situated in appropriate places. Some members of the International Court of Justice found that New Zealand had made a prima facie case that testing at Mururoa Atoll was unsafe due to the structure of the island.¹¹ Studies indicate high levels of caesium-134 and cobalt-60 in the Atoll's lagoon¹² and in plankton outside Mururoa's exclusion zone.¹³ The disturbance to the ecosystem occurs through the food chain. However, it appears that well managed and situated tests have little effect beyond the immediate area, and so generally pose little danger to people. Plants, animals and the other aspects of the environment appear to suffer more.

International and Domestic Law

The Treaty was signed by the Crown and is international law. Thus, it cannot affect domestic law (and thus New Zealanders) without Parliament's express approval though incorporating legislation (Sir Robert Phillimore in *The Parliament Belge*¹⁴).

When domestic legislation (the Act) is passed to give effect to an international agreement (the Treaty) there is a presumption that Parliament intended to fulfil its international obligations (*Salomon v Commissioner of Customs and Excise*¹⁵).¹⁶ The Court may refer to the Treaty's text when Diplock LJ's two conditions are met: the terms of the Act must be reasonably capable of more than one interpretation and there must be extrinsic evidence that Parliament intended to fulfil its international obligations.¹⁷ The New Zealand Court of Appeal in *Tavita*

9 Ibid, 87–89.

10 See Greenpeace at <<http://www.greenpeace.org/~nuclear/>> for a contrasting view.

11 See the best explanation of environmental damage at Mururoa Atoll in the International Court of Justice's Advisory Opinion concerning a Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in *Nuclear Tests (New Zealand v France)* 1974 ICJ 457 (1974) given on 22 September 1995 per Judge Weeramantry at 347–359.

12 Greenpeace *Exodus: An introduction to Environmental Issues in the Pacific* (3rd edn, 1995) at 28.

13 Ibid.

14 (1878–1879) 4 P.D. 129.

15 [1967] 2 QB 116 at 141 per Lord Denning MR and per Diplock LJ at 143.

16 Brownie, I. *Principles of Public International Law*, Clarendon Press, (4th edn, 1991) at 47.

17 Ibid, 48.

*v Minister of Immigration*¹⁸ warmed towards the notion that the courts might contemplate international instruments when interpreting domestic legislation although this was in the area of domestic human rights. More recently, the Court of Appeal has again left the question of the influence of international law on domestic law open.¹⁹ Thus, potentially, a New Zealand court when interpreting the Act may refer to the text of the Treaty.

The Comprehensive Test Ban Treaty 1996

History of the Treaty

The Treaty is the product of a 40-year process which began in April 1954 when Indian Prime Minister Nehru proposed a suspension of nuclear testing. There have been many attempts to ban testing and/or create nuclear free zones. However, the treaties of the last 40 years have at best limited, rather than prohibited, testing. Examples of such treaties include the Non-Proliferation of Nuclear Weapons,²⁰ the Treaty for the Prohibition of Nuclear Weapons in Latin America,²¹ the Treaty on the Prohibition of Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Seabed and Ocean floor and in the Subsoils thereof,²² and the Treaty Banning Nuclear Testing in the Atmosphere, in Outer Space and Underwater.²³ Although more than nine nuclear free zones have been proposed, only the Latin American and the South Pacific zones have been created.²⁴

The 1993 Conference on Disarmament authorised drafting of the Treaty. It was adopted on 10 September 1996²⁵ and easily passed.²⁶

The Purpose of the Treaty and the Environment

The Treaty aims to prohibit all nuclear explosions (and thus testing) anywhere in the world. The motivation for the Treaty is the desire to further nuclear

18 [1994] 2 NZLR 257 at 266.

19 *New Zealand Air Line Pilots' Association Inc v Attorney-General* [1997] 3 NZLR 269 at 285.

20 London, Washington and Moscow, 1 July 1968.

21 Mexico City, 14 February 1967; also referred to as the Treaty of Tlatelolco.

22 Washington, London and Moscow, 11 February 1971.

23 Moscow, 5 August 1963; also referred to as the Partial Test Ban 1963.

24 Fyfe, N. & Beeby, C., "The South Pacific Nuclear Free Zone" 17 (1987) *VUWLR* 33, at 37.

25 United Nations Assembly Resolution 50/245, 125th Plenary Meeting of its Fiftieth Session.

26 158 for, three against, five abstentions.

disarmament. The positive environmental effects²⁷ are but a fortunate consequence.

Towards the end of the preamble, it is noted "the views expressed in this Treaty could contribute to the protection of the environment". The context indicates this is an incidental "goal". Whether "could" refers to (a), *if* the Treaty comes into force (and assumes that banning testing will lead to environmental protection) or (b), *if* the Treaty achieves nuclear disarmament, is unclear. In its best light, the Treaty may be seen as an expression of the precautionary principle as the severity of the long term consequences of nuclear testing are unclear but potentially harmful.

The Treaty operates to protect the environment in two ways. First, the cessation of testing prevents the problems outlined above and, second, it may also reduce nuclear weapon stocks thus making nuclear war less likely.²⁸ Clearly, lessening the chance of nuclear war is positive for the environment.

The Comprehensive Nuclear-Test-Ban Treaty and Incorporation by the Nuclear-Test-Ban Act 1999

The Treaty, which contains a Preamble, 17 Articles, two Annexes and a Protocol, applies to the signatory states when it comes into force.²⁹ Once a state has signed the Treaty, the basic prohibition in Article I(1) will require that state to (a) not carry out any nuclear explosions, and (b) prohibit (pass its own prohibitive law) and prevent such explosions. Thus, a positive duty is created to prevent explosions. This duty must apply to non-state testing as the basic prohibition already prevents state testing. States must also refrain from causing, encouraging or in anyway participating in the carrying out of explosions.³⁰

The Test-Ban Act's contents and structure reflect those of the Treaty. The prohibitions are incorporated in s 5 (which also applies to the Crown³¹). Hence, New Zealanders may not carry out nuclear explosions.³²

Interestingly, although the Treaty does not explicitly require the state to prohibit its citizens from causing, encouraging or participating in explosions, the New Zealand Act prohibits these actions.³³ However, this is consistent with Article III(1) of the Treaty that requires the signatory states to prohibit people

27 Comprehensive Nuclear-Test-Ban Treaty 1996, Preamble.

28 See the Comprehensive Nuclear-Test-Ban Treaty 1996, Preamble for stated objective of nuclear disarmament via the effective prevention of the development of new nuclear weapons.

29 Comprehensive Nuclear-Test-Ban Treaty 1996, Article XIV.

30 Ibid, Article I(2).

31 Nuclear-Test-Ban Act 1999, s 4.

32 Ibid, s 5(1)(a).

33 Ibid, s 5(1)(b).

from conduct that the state may not partake in. Thus s 5(1)(b) is necessary to fulfil New Zealand's international obligations.

Exactly what acts fall under the prohibited conduct ("causing, encouraging or participating in explosions") is unclear. Participating, the widest term, seems to contemplate actions other than those that cause or encourage explosions. Perhaps New Zealanders who export equipment used by those carrying out tests may be "participating" in the explosion.

Article III reiterates Article I requiring that the prohibitions above apply to the state's territory, jurisdiction and area under that state's control.³⁴ Further, the state must, in conformity with international law, prohibit natural persons possessing its nationality from undertaking any of the prohibited activities anywhere.³⁵ Section 6 satisfies these requirements by giving the Act extraterritorial application. This means that the s 5 prohibitions also apply to acts or omissions done by a New Zealand citizen,³⁶ or any other person on board a New Zealand ship or aircraft³⁷ outside New Zealand. The Attorney General's consent is needed to bring a charge relating to conduct outside New Zealand.³⁸

Article IV establishes the verification mechanisms, including the provision for on-site inspections, which are provided for in ss 10 to 20 of the Act. Under the Act, the Secretary of Foreign Affairs and Trade may require information concerning the enforcement of the Treaty.³⁹ Failure to comply or providing false information is an offence.⁴⁰ These provisions may also be used to gather information helpful in discerning a breach of s 5. On-site inspections of New Zealand facilities are allowed under s 12 and detailed in ss 13 to 20.

Article XIV states the Treaty is to come into force 180 days after the 44 nuclear states sign and ratify the Treaty.⁴¹

The Effectiveness of the Treaty

Any limitation on the effectiveness of the Treaty, affects the Treaty's environmental protection.

34 Comprehensive Nuclear-Test-Ban Treaty 1996, Article III(1)(a) and (b).

35 Ibid, Article III(1)(c)

36 Nuclear-Test-Ban Act 1999, s 6(1)(a).

37 Ibid, s 6(1)(b).

38 Ibid, s 6(2).

39 Ibid, s 7(1)(a) to (c).

40 Ibid, ss 8 and 9.

41 As at 20 August 2001, 41 of the 44 has signed the Treaty (Democratic People's Republic of Korea, India and Pakistan being yet to sign) and 31 of the 44 have ratified the Treaty.

The Treaty needs the support of the 44 nations or else it will be of little effect.⁴² If the concern were for the environment (cf. the political environment) this provision would not be necessary as any reduction in testing would be environmentally beneficial. Further, the provision for a state's withdrawal due to jeopardised national interests⁴³ and the ability of a conference of states to authorise an explosion⁴⁴ puts national security ahead of any environment protection the Treaty may offer. This concern for the political environment is underlined by Article VIII(1) which explicitly requires that any authorised test must be for peaceful purposes and that steps should be taken to preclude military benefits.

The Treaty may also be ignored, either by breaching it, or not signing and/or ratifying. In the nuclear testing context such conduct would not be without similar precedent. In the past, France ignored the ruling of the International Court of Justice on nuclear testing⁴⁵ and also the Non-Proliferation Treaty.⁴⁶ Others may follow this precedent.

The Treaty does not cover subcritical tests.⁴⁷ Although new weapons cannot be developed with subcritical tests⁴⁸ they do provide technical information⁴⁹ enabling safer weapons maintenance.⁵⁰ Thus, we face a trade off between subcritical tests causing minor environmental damage and the chance of major environmental harm due to the degradation of the stockpile of weapons.

42 This is because nations such as New Zealand and the United Kingdom are yet to bring their domestic incorporation legislation into force.

43 Comprehensive Nuclear-Test-Ban Treaty 1996, Article IX(2).

44 *Ibid.*, Article VIII(1).

45 *Nuclear Tests (New Zealand v France)* 1974 ICJ 457 (1974) at 477.

46 Siskin, M. K., "Does International Law Reflect International Opinion? French Nuclear Testing in the Twentieth Century" (1996) 26 *Georgia Journal of International and Comparative Law* 187, at 212.

47 Subcritical tests are those in which no critical mass is formed, thus are not self-sustaining. (US Department of Energy "Subcritical Experiments Conducted Successfully at the Nevada Test Site U1A Complex" 25 March 1998. Available at <www.clw.org/publicw/coalition/subcrit3.htm>). These tests have no yield and are consistent with the Treaty's zero yield ban (Physicians for Social Responsibility Issues Brief available at <www.psr.org/subcrit.htm>).

48 See US Department of Energy at note 47, which says that new nuclear weapons cannot be developed with subcritical tests. For views to the contrary, see Physicians for Social Responsibility at note 39, "Nuclear Arsenal is 'Safe and Reliable' Under Test Ban Treaty: US Doesn't need to Test — But Others Do Need Tests to Improve their Arsenals" 11 October 1999 available at <www.clw.org/pub/coalition/brief3n16.htm> and Garwin, R. L., "The Future Without Nuclear" *Arms Control Today* (Nov/Dec 1997, Vol 27, No 8) available at <<http://www.clw.org/pub/clwl/coalition/garwact.htm>>.

49 US Department of Energy, *supra* note 47.

50 Garwin, *supra* note 48.

The Nuclear-Test-Ban Act 1999

New Zealand's Incorporating Legislation

It was noted in Parliament that the Bill's basic prohibitions were only necessary so that New Zealand met its obligations under the Treaty.⁵¹ Thus, Parliament's purpose was to send a message of endorsement of a treaty,⁵² which it saw as furthering our disarmament objectives. Environmental concerns were not mentioned in Parliament although perhaps they partly explain the commitment to nuclear disarmament.⁵³

It is crucial to note that the Act is assent legislation. It will come into force on a date to be determined by the Governor-General Order in Council.⁵⁴

Issues Raised by Section 5: the basic prohibitions; some basic problems

Section 5(1)(a) prohibits a person carrying out a nuclear weapon test explosion. The provision contains no express mens rea requirement.⁵⁵ However, *Millar v MOT*⁵⁶ gives a test to determine if mens rea should be implied. Given the severity of the penalty⁵⁷ (although this is only indicative), and the lack of clear legislative intent and overriding judicial history, we must ask if there is anything weighty enough to displace the presumption of mens rea. Section 5(1)(a) is an onerous obligation and creates a serious offence. Therefore, implying mens rea seems appropriate.⁵⁸ This must attach to the "carry out" phrase, which is capable of connoting conscious action. Given the English standard, perhaps "knowledge" is an appropriate requirement here.⁵⁹

Liability in s 5(1)(b), as a party, is contingent on the "carrying out" of a nuclear explosion. Thus, without an explosion, there is no liability. Clearly,

51 (1999) 575 NZPD 15029 per Rt Hon Don McKinnon, Minister for Disarmament and Arms Control.

52 (1998) 569 NZPD 10324 per Rt Hon Don McKinnon, Minister for Disarmament and Arms Control.

53 *Ibid*, at 10,323 and 10,324.

54 Nuclear-Test-Ban Act 1999, s 1(2).

55 Compare this to the English Nuclear Explosions (Prohibition and Inspection) Act 1998 which required knowledge (... knowingly causes a nuclear weapon test explosion ...) for the basic prohibition (s 1(1)).

56 [1986] 1 NZLR 660.

57 See s 5(3)'s fine not exceeding \$1,000,000 or a term not exceeding 10 years. Interestingly, Taito Philip Field felt this was too low ((1998) 569 NZPD 10336).

58 *R v Strawbridge* [1970] NZLR 909.

59 See note 55.

“cause” and “encourage” require the mind’s application or are positive words that imply mens rea.⁶⁰ However, the broader “participate in any way” could be unknowingly completed. An exporter may “participate” in an explosion by exporting components depending where on the “participation spectrum”⁶¹ the line is drawn. Implying mens rea would appropriately limit liability for participation.

It is unclear whether incorporated bodies may be liable under ss 5 and 6. Given Article III(1)(a) and the approach outlined in *Saloman*, it seems likely legal persons will also be liable.

Issues Raised by Extraterritorial Legislation

Extraterritorial legislation is not unprecedented⁶² although it is unusual. State authority is extended by nationality⁶³ and also by territory.⁶⁴ These are the two recognised mechanisms used in extraterritorial legislation.⁶⁵ New Zealand courts accept such legislation as comments in *Berkett v Tauranga District Council*⁶⁶ indicate.

Parliament can validly pass such legislation. Section 15(1) of the Constitution Act 1986, with reference to s 3 of the Statute of Westminster 1931 (UK), gives New Zealand’s Parliament the power to make extraterritorial law. Therefore, s 6 is valid.

It is odd that s 6(1), applying to cases outside New Zealand, makes reference to both acts and omissions, whereas s 5 creates liability only for acts. Indeed, s 5(2) specifically refers to conduct. It would be unusual for extraterritorial liability to be more onerous than the domestic equivalent. However, unless s 5 implies liability for omissions (which is highly tenuous), this appears to be the position. Parliament may intend to put a positive duty on persons to prevent nuclear explosions (as rests with the state) which would be consistent with Article III but seems unduly burdensome. Hansard offers little assistance on this point.

60 *Paul v Housing Corporation of New Zealand* unreported, HC Blenheim, M 31-83, 25 September 1984, Jeffries J.

61 At one extreme is “pushing the button” while at the other might one can think of some obscure contribution, e.g. exporting raw iron.

62 For example, Crimes Act 1961, s 144A, or in the context of environmental law, Maritime Transport Act 1994, s 4.

63 See Nuclear-Test-Ban Act 1999, s 6(1)(a).

64 *Ibid*, s 6(1)(b).

65 Morgan, E., “Criminal Process, International Law and Extraterritorial Crime (1998) 38 *University of Toronto Law Review* 245, at 247.

66 [1992] 3 NZLR 206 at 211 where Fisher J said “... all New Zealand Courts will recognise and act upon all Acts of their Parliament”.

Interaction with Other New Zealand Nuclear Legislation

The New Zealand Nuclear Free Zone, Disarmament and Arms Control Act 1987 (the NFZA)

In reality, most breaches of s 5 of the Test-Ban Act will also breach the NFZA.⁶⁷ The NFZA's basic testing prohibition⁶⁸ simply bans nuclear testing in the New Zealand nuclear free zone.⁶⁹ The acquisition of nuclear devices, and the aiding, procuring and abetting of an acquisition, is also prohibited.⁷⁰

Thus, liability for a test under s 5 of the Test-Ban Act could also give rise to liability under either s 7 or s 5 (if the person had "control" over the device) of the NFZA. It is right to conclude that the NFZA's prohibitions are wider than those in the Test-Ban Act.

However, the NFZA has less reach. The testing prohibition applies only to the New Zealand zone,⁷¹ as does the acquisition prohibition for New Zealand's citizens and ordinary residents.⁷² However, the acquisition prohibition does have an extraterritorial jurisdiction ("... beyond the nuclear free zone ...") for the Crown's servants or agents.⁷³ Thus, for testing alone, the Test-Ban Act has a greater jurisdiction, while for the possession of nuclear devices (which may be necessary in order to test them), the NFZA's reach is comparatively greater (especially for state agents).

Breach of the NFZA may result in a ten-year term of imprisonment.⁷⁴ However, the Attorney-General's consent is required to lay a charge.⁷⁵ This is more onerous for the Crown than the Test-Ban Act, which only requires consent for charges relating to extraterritorial matters.⁷⁶ Interestingly, the NFZA makes

67 (1998) 569 NZPD 10325 per Derek Quigly (Member of the Test-Ban Bill Select Committee).

68 New Zealand Nuclear Free Zone Act, Disarmament and Arms Control Act 1987, s 7. Note again that no mens rea is specifically mentioned. "Test" may imply mens rea.

69 Section 4 of the New Zealand Nuclear Free Zone Act, Disarmament and Arms Control Act 1987 defines the nuclear free zone as including (a) the land, territory, and inland waters within the territorial limits of New Zealand; and (b) the internal waters of New Zealand; and (c) the territorial sea of New Zealand; and (d) the airspace above the areas specified in paragraphs (a) to (c) of this section.

70 New Zealand Nuclear Free Zone Act, Disarmament and Arms Control Act 1987, s 5(1).

71 *Ibid.*, s 7.

72 *Ibid.*, s 5(1).

73 *Ibid.*, s 5(2).

74 *Ibid.*, s 14(2).

75 *Ibid.*, s 15(1).

76 Nuclear-Test-Ban Act 1999, s 6(2), which is the same as under the Chemical Weapons (Prohibition) Act 1996 (see Part 5.43).

explicit reference to conspiracy and attempts.⁷⁷ The Test-Ban Act does not do so but could make use of ss 310 and 72 of the Crimes Act 1961.

The Customs Export Prohibition Order 1996, Regulation 8.

This regulation directs that “dual use weapon related exports which may have application in a nuclear weapons program” may only be exported with the consent of the Secretary of Foreign Affairs and Trade. Such exports may also come under the s 5 prohibition on participation⁷⁸ although this depends on the link between the export and the explosion.⁷⁹ Liability under these regulations depends on what interpretation is given to “may”.

The Chemical Weapons (Prohibition) Act 1996 (the CWA)

The CWA appears to be the model upon which the Test-Ban Act was based. Structurally they are similar and their purposes are the same, save the instrument each seeks to implement.⁸⁰

This Act is also of extraterritorial application as given in s 5. This means prohibited acts or omissions⁸¹ done on a New Zealand ship or aircraft⁸² or by any New Zealand citizen or person ordinarily resident in New Zealand⁸³ attract liability. This is the same as the Test-Ban Act save the reference to residents. The reason for this distinction is not obvious.

Recklessness or intention is explicitly required for the CWA’s basic prohibition in s 6(1). Given that this is the model for the Test-Ban Act and the extent of replication⁸⁴ and effective replication,⁸⁵ Parliament may have deliberately excluded a mens rea requirement. This may be grounds for legislative history or intent under the *Millar* test. Interestingly, the CWA’s penalty is greater

77 New Zealand Nuclear Free Zone Act, Disarmament and Arms Control Act 1987, s 15(1)(b) and (c).

78 Nuclear-Test-Ban Act 1999, s 5(1)(b).

79 See Part 5.2.

80 The Chemical Weapons Act implements the Convention on the Prohibition on the Development, Stockpiling and Use of Chemical Weapons and Their Destruction.

81 Cf Nuclear-Test-Ban Act 1999, s 6(1).

82 Chemical Weapons (Prohibition) Act 1996, s 5(1)(b), which is the same as s 6(1)(b) in the Test-Ban Act.

83 *Ibid.*, s 5(1)(a).

84 Compare s 4(2) of the CWA and s 3(2) of the Test-Ban Act.

85 Compare s 20(1) of the CWA and s 14(1) of the Test-Ban Act, s 19 and s 13, s 28 and s 21 and, s 29 and s 22.

than for the Test-Ban Act as a term of life imprisonment or a fine of up to \$1,000,000 is provided for.⁸⁶

Conclusion

The Test-Ban Act was not passed to further environmental protection, nor was the Treaty that the Act incorporates. Further, the Act offers little environmental protection because New Zealand⁸⁷ and New Zealanders⁸⁸ do not participate in nuclear tests.

However, the Treaty will have a positive effect on the environment if it comes into force. This is because the effects of tests, however limited they might be, will be prevented and nuclear war will become less likely. Unfortunately, the Treaty's environmental effectiveness is limited by a number of factors as outlined above.

New Zealand's Act, which overlaps with the NFZA, successfully fulfils our international obligations. Yet it is not perfect. It is unclear if mens rea will be read in for the basic prohibitions, and the inclusion of extraterritorial omissions without a domestic equivalent is concerning.

It is disappointing that environmental protection is an incidental goal that "could" be achieved. However, taking a "results based" approach, when the Treaty (and the incorporating Acts around the world) enter into force, the environment will benefit. Protection is protection, regardless of the means by which it is achieved.

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86 Chemical Weapons (Prohibition) Act 1996, s 6(1).

87 Comprehensive Nuclear-Test-Ban Treaty 1996, Article I.

88 Nuclear-Test-Ban Act 1999, s 5.

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