



DECISION

27 June 2012

1. Summary

Substance	Taskforce
Application code	APP201170
Application type	To reassess any hazardous substance under section 63A of the Hazardous Substances and New Organisms Act 1996 ("the Act")
Application sub-type	Modified reassessment
Applicant	Marlborough District Council
Purpose of the application	To reassess the approval of Taskforce to be used to control Kangaroo Grass, and to allow aerial application of Taskforce (variation of controls).
Date application formally received	07 February 2012
Submission period	10 February 2012 – 23 March 2012.
Submissions received	19 submissions were received
Hearing date and location	18 May 2012 (Blenheim)
Consideration period	18 May 2012 – 27 June 2012
Considered by	A decision- making committee of the Environmental Protection Authority (EPA): Manuka Henare (Chair) Valerie Orchard Helen Atkins
Decision	The modified reassessment of the substance is approved with controls (Approval Number HRR100016)

2. Legislative criteria for the application

- 2.1. According to section 63A(1) of the Act, a modified reassessment may be carried out where the EPA considers that the reassessment will involve only a specific aspect of the approval and the proposed amendment is not a minor or technical amendment to which section 67A of the Act applies.
- 2.2. Unless otherwise stated, references to section numbers in this report refer to sections of the Hazardous Substances and New Organisms (HSNO) Act 1996 (“the Act”) and clauses to clauses of the Hazardous Substances and New Organisms (Methodology) Order 1998 (“the Methodology”)¹.

3. Application process

Background to the application

- 3.1. The Marlborough District Council (“the applicant”) is seeking to modify the approval of Taskforce. Taskforce is a herbicide containing flupropanate as the sodium salt, formulated as a water suspension concentrate. It is approved for use for the control of Chilean needle grass and nassella tussock in pasture. It was approved by the Environmental Risk Management Authority on 7 September 2010 under Part 5 of the Act and has the HSNO approval number HSR100390.
- 3.2. Because of uncertainties regarding human health and environmental effects of Taskforce a number of restrictive controls were placed on the approval.
- 3.3. Two of these controls on the approval of Taskforce state that:
 - The method of application of Taskforce shall be limited to ground-based application only.
 - The use of Taskforce shall be restricted to use on pasture to control Chilean needle grass or nassella tussock.
- 3.4. The applicant is seeking the variation of these controls to allow the following:
 - The aerial application of Taskforce.
 - The use of Taskforce on kangaroo grass, in addition to the already permitted use on Chilean needle grass and nassella tussock.
- 3.5. In order to mitigate the risks to the environment from aerial application, the applicant proposed that three additional controls should be imposed. These controls are:
 - A requirement for aerial users to obtain a prior permission from the regional council.
 - A requirement for aerial applicators to be subject to an Aircaretm Accreditation Audit².
 - A restriction of the frequency of aerial application to one application within a five year period.

¹ <http://www.epa.govt.nz/publications/er-pr-02-decision-paths.pdf>

² <http://www.aia.org.nz/AIRCARE.html>

- 3.6. As part of its application, the applicant requested that the approval be modified to allow the application of Taskforce in vineyards in addition to pasture. However, the applicant chose not to pursue this aspect of the reassessment due to a lack of residue data on grapes, so this aspect of the application was withdrawn.

Formal receipt and notification

- 3.7. The application was lodged by the applicant pursuant to section 63A following grounds for reassessment having been established under section 62 by the EPA in its decision dated 2 December 2011 (application number APP201050).
- 3.8. The Ministry of Health, the Department of Labour, the Ministry for Primary Industries (formerly the Ministry of Agriculture and Forestry) and the Department of Conservation were identified as having a specific interest in the application. They were provided with a copy of the application and given the opportunity to comment or to make a submission by the 23rd of March 2012.
- 3.9. Other government departments, crown agencies and other interested parties, as listed in Appendix 3 of the Evaluation and Review Report³ ("E&R Report"), were provided with a copy of the application summary. They were given the opportunity to comment or to make a submission by the 23rd of March 2012.

Submissions

- 3.10. Nineteen submissions were received. The submitters included regional councils, farmers and iwi. A summary of submissions can be found in Appendix 4 of the E&R Report.
- 3.11. Three submitters requested to be heard in support of their submissions: Canterbury Regional Council, Hurunui District Council and Rex Dodson.
- 3.12. None of the submitters opposed the application. In supporting aerial application, the submitters maintained that ground-based application is not as effective as aerial application and that aerial application is the only option in difficult terrain.
- 3.13. Some submitters support the additional controls proposed by the Marlborough District Council. Others, including the Canterbury Regional Council, think them as unnecessary to address the risks associated with aerial application.

Hearing and Decision Maker

- 3.14. In accordance with section 60 and clause 2(2)(b), a hearing was held on 18 May 2012 at the Marlborough Convention Centre, Blenheim, as it is where the applicant is located and is one of the regions most affected by infestations of Chilean needle grass (CNG).

³ http://www.epa.govt.nz/search-databases/HSNO%20Application%20Register%20Documents/APP201170_Evaluation%20and%20Review%20Report%20-%20Taskforce.pdf

Evaluation and Review Report

3.15. The staff of the EPA (“the staff”) prepared an E&R Report to aid the Committee in its decision-making process. The E&R Report consists of the staff’s review of the application and supporting information, including submissions. In the E&R Report, the staff reviewed the proposed modification to the approval for Taskforce, assessed the potential risks, costs and benefits arising from the proposed modifications to human health, environment, Māori, society and community, and to the market economy. The E&R included an evaluation of the applicant’s proposed controls that might be implemented in order to manage the risks posed by the proposed modifications to the use of Taskforce.

Hearing

3.16. The Committee heard from the applicant (Ben Minehan and Dave Gruber, Marlborough District Council) and the following submitters:

- Ray Maw (submitter, Environment Canterbury);
- Winton Dalley, (submitter, Mayor of Hurunui District Council), Vincent Daly (witness, District Councillor);
- Rex Dodson (submitter, farmer), Owen Dodson (witness, Managing Director and aerial applicator, Marlborough Helicopters Ltd).

3.17. The Committee heard from the applicant and submitters on the significant effects of the pest weeds, (particularly CNG). In addition to the effects of CNG on pasture production, there are also significant effects on animal welfare and stock movement causing economic and social hardship in the rural sector, for example in Hurunui. In addition, the Committee heard that, when the pest weeds are in remote locations, ground application was difficult and expensive. Further information was provided on the possible risk management options regarding aerial application as detailed in the application, and generally on significant benefits that aerial application of Taskforce may offer.

3.18. The Committee notes that the hearing provided a greater level of depth and context regarding the nature of the threat that CNG poses to farmers and livestock, communities and the environment than the information contained in the application, the E&R report and the submissions.

3.19. The Committee wishes to thank the applicant, submitters and the EPA staff for their input during the hearing, which greatly assisted it in reaching its decision.

4. Consideration

The requirements of section 63A

4.1. According to section 63A(1), a modified reassessment may be carried out where the EPA considers that the reassessment will involve only a specific aspect of the approval and the proposed amendment is not a minor or technical amendment to which section 67A applies.

- 4.2. The Committee considers that—
- (a) a reassessment of the substance under section 63 is not appropriate because the reassessment will involve only a specific aspect of the approval (i.e. two of the existing restrictions on the use of Taskforce); and
 - (b) the amendment is not a “minor in effect” or a minor or technical amendment to which section 67A applies (i.e. a change in the existing restrictions on the use of Taskforce may result in an increase in risks and require different risk mitigation measures, which is not considered a minor in effect or minor or technical amendment).
- 4.3. According to section 63A(6), the Committee may approve or decline an application for reassessment under this section, as it considers appropriate, after taking into account:
- (a) all the effects associated with the reassessment; and
 - (b) the best international practices and standards for the safe management of hazardous substances.

Identification of the potentially non-negligible benefits, risks and costs associated with the modified reassessment of Taskforce

Approach to uncertainty

- 4.4. In their E&R report, the staff identified that, because no additional information regarding the effects that Taskforce may have on the environment and human health was provided since the original approval, the uncertainty surrounding these effects is unchanged from the original approval, and remains high. Consequently, the Committee had to take into account the need for caution in managing the adverse effects of the aerial application of Taskforce. The Committee had also to determine the materiality and significance to the proposal of the uncertainty given the benefits of aerial application and the likely effects of Taskforce not being available for aerial application.

Potentially non-negligible benefits

- 4.5. In its application, the applicant details the economic impacts posed by infestations of CNG, nassella tussock and kangaroo grass:

“Every year a million dollars is spent controlling Nassella Tussock just in the Marlborough region alone. Infestations of these weeds on pastoral farms reduces their stock carrying capacity, in the case of Chilean Needlegrass it reduces animal welfare, and the time and money spent by farmers ... controlling them could be better spent on developing and enhancing their farm ...”

- 4.6. The applicant and submitters provided details regarding the benefits of the proposal to allow aerial application of Taskforce, and use Taskforce to control kangaroo grass, may offer, which included:
- 4.6.1. Aerial spraying of Taskforce will give landowners another control option for severe infestations of these invasive weeds.

- 4.6.2. Aerial application allows greater coverage and access to land inaccessible to ground-based spraying equipment. Greater coverage leads to increased effectiveness of a control programme.
- 4.6.3. The proposed infrequent aerial application will be more effective in controlling pest weeds in comparison to current methods, which include annual grubbing of weeds and hand-application of chemical pesticides, including Taskforce. The submitters highlighted that spot spraying of herbicides misses plants that would be covered using aerial spraying.
- 4.6.4. Control of CNG, nassella tussock and kangaroo grass will provide great financial benefit to landowners and communities. It will provide an opportunity to overcome the economic and social effects arising from the impacts of infestations on farmers and local communities in the affected regions. Particular reference was made during the hearing to the effects on the Forrester's farm in Hurunui District. The impact on the farmer concerned and broader community was described as "devastating". Infestations can have severe implications on the movement of animals and produce, in order to control the infestation and prevent further migration of pest weeds:
- Transportation of stock from infested areas becomes restricted;
 - Transportation and sale of products such as hay from infested areas is restricted;
 - Pelts of animals contaminated with CNG seeds are unable to be used;
 - CNG poses significant animal welfare issues.
- 4.7. Based on the information provided at the hearing by submitters and the applicant, the Committee considers that with the current tools that are available (which include ground-based application of Taskforce) the spread of CNG, at best, is being inhibited. Its impacts are not reduced. The costs associated with on-going infestations of CNG are non-negligible, and these costs could rise if the spread of CNG continues.
- 4.8. The Committee considers that the benefits associated with aerial application of Taskforce, and use on kangaroo grass, are likely to result in substantial and significant benefits.

Potentially non-negligible risks and costs

- 4.9. The costs and risks were assessed together in an integrated fashion in the E&R report.

Potential for adverse effects arising from aerial application

- 4.10. The Committee considers that there is technical uncertainty surrounding the level of risk that use of Taskforce poses, with potentially non-negligible human health and environmental risks associated with the substance. The Committee considers that greater areas of land that could be treated by aerial application. Consequently, the quantity of Taskforce being placed into the environment would be greater also. The Committee considers that the level of risk resulting from allowing aerial application of Taskforce will be greater than under the existing approval conditions, and requires additional risk management controls to ensure that the risks posed are minimised.

Effects on waterways

4.11. Technical uncertainty exists in relation to Taskforce because there is a lack of ecotoxicity data for the substance. Given the long-lasting effects of the substance on the target pest weeds, application of Taskforce onto dry streams or river beds could potentially be an issue should water flow in those locations after application. The Committee notes that the applicant's verbal evidence suggests that the leaching rates of the substance are low. However, no empirical studies have been provided for the Committee to consider so a precautionary approach to protect waterways from exposure to Taskforce is required.

Inclusion of kangaroo grass as a target pest weed

4.12. The Committee considers that inclusion of kangaroo grass as a permitted target pest weed will not pose any greater level of risk than those not mitigated by the existing approval conditions for CNG and nassella tussock.

Off-target application and spray-drift

4.13. The Committee notes that off target application of Taskforce (such as by spray drift) could pose a threat to the environment. The Committee notes that the information provided during the hearing from submitters provided a level of assurance that appropriately trained aerial applicators can operate in a manner that minimises spray drift, when using appropriate application parameters.

4.13.1. Mr Owen Dodson (from Marlborough Helicopters Ltd) highlighted that key parameters that affect the degree of spray drift include droplet size and weather conditions – the product density, once diluted in the spray tank, is not a key risk mitigation factor.

4.13.2. Mr Dodson went on to provide information on current practices regarding aerial application of agricultural pesticides, including a video demonstration of the information that can be obtained in flight to inform the operation as part of an aerial application programme.

4.13.3. Mr Ray Maw (from Environment Canterbury) elaborated on his submission, highlighting the requirements for use conditions of the substance to be specified on the product label, and that use of the substance should require Differential Global Positioning System (DGPS) data to be recorded, and retained, to demonstrate both the location and discharge of the substance.

5. Controls

5.1. During the original assessment of Taskforce, based on the hazard classification determined for Taskforce, a set of associated default controls specified by regulations under the Act was identified as being applicable. Based on the risk assessment conducted during the original assessment a number of additions, variations and deletions were applied to the controls for Taskforce. These controls form the basis of the controls set out in Appendix A.

Modifications to the controls

- 5.2. The Committee considers that modifications to the existing controls that apply to Taskforce will be required in order to ensure that an increase in risks to human health or the environment resulting from aerial application, or use on kangaroo grass, are adequately managed. The Committee considers that the controls listed in Appendix A should apply to Taskforce, and will be more effective in terms of its effect on the management, use, and risks of the substance, in accordance with section 77A (4)(a).

Additional label information (Additional Control 5)

- 5.3. The Committee considers that end-users of Taskforce need to be informed of the specific details that relate to the restrictions that apply to aerial application and differences to ground-based application. The Committee considers that application rates and frequencies for ground and aerial applications is required to be specified on the product label.
- 5.4. To mitigate risks arising from the off-target application of Taskforce (i.e. outside of the target application area), the Committee considers it appropriate to set a control specifying the minimum droplet size *via* a statement on the product label. The label shall include a statement that the minimum droplet size for aerial application should be “coarse”, as specified in NZS:8409 Management of Agrichemicals⁴ in accordance with the British Crop Production Council (BCPC) classification⁵. Droplet size is a key parameter that affects spray drift, with larger droplets (such as “coarse” or “very coarse”) being less susceptible to drift.

Notification requirements (Additional Control 6)

- 5.5. The Committee considers that notification of persons that may be affected by the aerial application of Taskforce should be made at least 10 working days, but no more than 3 months, in advance of the application, in order to provide relevant information to those affected parties.
- 5.5.1. The Committee considers that the owners or occupiers of neighbouring properties may be affected by the aerial application of Taskforce, and should be informed in advance of any aerial applications.
- 5.5.2. The Committee considers that, given their traditional relationships with ancestral lands, water, sites, wāhi tapu, valued flora and fauna or other taonga, it is appropriate to inform representatives of local iwi rūnanga of intended aerial applications of Taskforce, as this allows the iwi to manage any associated issues that might arise from aerial application of Taskforce.
- 5.5.3. The Committee considers that the EPA should be notified in advance of an aerial application, which will provide a record of whether an aerial application has taken place on a given piece of land within the past five years.

⁴ <http://shop.standards.co.nz/scope/NZS8409-2004.scope.scope.pdf>

⁵ <http://www.bcpc.org/index.php>

5.6. The Committee considers that the following control should be added to ensure that appropriate parties are notified in advance of an aerial application of Taskforce:

- (1) *No person may apply, or engage another person to apply, Taskforce unless the person has given notice of the proposed application to—*
 - (a) *the EPA;*
 - (b) *occupiers and owners of land, dwellings or buildings immediately abutting the application area;*
 - (c) *the relevant local iwi rūnanga representatives.*
- (2) *The notice referred to in subclause (1) must—*
 - (a) *be given with sufficient prior notification, at least 10 working days but no more than 3 months in advance of the aerial application; and*
 - (b) *specify the following:*
 - (i) *the location of application area that Taskforce will be aerially applied to;*
 - (ii) *the date and approximate duration of each application;*
 - (iii) *the name of the organisation/s undertaking the application, and*
 - (iv) *contact details for the person in charge of the application (phone, email or postal address).*

Approved Handler requirements (Additional Control 7)

5.7. The Committee considers that the application of Taskforce is required to be carried out by an approved handler. Additionally, the Committee considers that the approved handler requirements for aerial application are met if the applicator has a current pilot chemical rating in accordance with Part 61 of the Civil Aviation Rules. This is in alignment with the requirements that apply to existing aerially applied agricultural pesticides.

5.8. The approved handler requirements for Taskforce have been modified to accommodate aerial application.

Protection of waterways from aerial applications (Additional Control 8)

5.9. The Committee has identified a number of issues relating to the protection of waterbodies from potential exposure, as a result of aerial application of Taskforce.

5.9.1. The Committee is concerned about the effect of Taskforce on ephemeral waterways, given the uncertainty that exists regarding the effects that the substance may pose to aquatic systems. Additionally, given the claim of long-lasting herbicidal effects (i.e. whether Taskforce is persistent and/or bioaccumulative), measures to protect intermittent water systems are required. These ephemeral waterways may be at risk from exposure to quantities of the substance residual in the soil of dry waterways. The existing control on

Taskforce does not permit application of Taskforce onto or into water, which provides a control measure for existing waterbodies. As a result, a precautionary approach has been adopted and this restriction is extended to prohibit aerial application into known ephemeral waterways.

- 5.9.2. The Committee considers that measures are required to manage the runoff of Taskforce as a result of rainfall washing the substance off of the area of application into waterways. The Committee has included a control that prohibits the application of Taskforce if rainfall sufficient to result in runoff is forecast or expected with 24 hours of completion of the application.

5.10. The Committee considers that the following control will manage the risks of Taskforce to waterbodies:

Use restriction for Taskforce

- (1) *Taskforce shall not be applied onto or into water.*
- (2) *Taskforce shall not be aerially applied to any place if rainfall that may lead to runoff of the substance from the treated area is forecast or expected within 24 hours of the completion of an application.*
- (3) *For the purpose of subclause (1), “water” means water in all its physical forms, whether flowing or not, and whether over or under ground, but does not include water in any form while in a pipe, tank or cistern and, in the case of aerial application, includes known intermittently flowing rivers (such as ephemeral waterways).*

Inclusion of kangaroo grass as a target pest weed species (Additional Control 9)

5.11. In order to allow the use of Taskforce on kangaroo grass, the current restriction that specifies that Taskforce may only be applied to control nassella tussock and CNG must be extended to also include kangaroo grass.

Application frequency restriction (Additional Control 10)

5.12. The Committee also notes that the maximum rate at which Taskforce may be applied to a particular piece of land remains the same as the amount specified in the existing approval for ground-based application (3L / ha, once per year).

5.13. The Committee considers that infrequent aerial application of Taskforce should be permitted, and notes that the applicant proposes one aerial application every five years. The Committee considers that this frequency restriction is appropriate and that a control that restricts the period of time between aerial applications of Taskforce to a minimum of five years is required.

5.14. The Committee notes that it can be a number of months after application before there are visual signs of the effects of Taskforce on the target pest species. In order to prevent over-application of Taskforce, the Committee considers that, between applications of Taskforce there should be a minimum interval of one year. This means that, after an aerial application of Taskforce to a place, a

minimum of one year must elapse before that Taskforce may be applied to that place via ground-based application.

5.15. The following control applies to the application of Taskforce:

Maximum application rate requirements for Taskforce

- (1) *Taskforce may be applied at a maximum rate of 3L / ha, with a maximum application frequency of once per year.*
- (2) *Notwithstanding subclause (1), the minimum interval between aerial applications of Taskforce is 5 years.*
- (3) *If Taskforce has been aurally applied to a place, no person shall apply Taskforce using ground-based equipment to that place until a minimum period of 1 year has elapsed since that aerial application was completed.*

Records of use (Additional Control 11)

5.16. The Committee considers that, given the uncertainty regarding the adverse effects of Taskforce that is aurally applied, specific information relating to the use of Taskforce should be recorded. In addition to the information that is required for ground-based application, the Committee has specified that the use record should include the target pest species that Taskforce is being applied to. The Committee has also specified information that must be recorded in relation to the location of application of Taskforce. The control that specifies what information is required to be contained in a record of use for aerial application is as follows:

- (3) *For aerial application of Taskforce, a record kept under subclause (1) must include the following information:*
 - (a) *the name of the substance;*
 - (b) *the target pest species;*
 - (c) *the date and time of each application or discharge of Taskforce;*
 - (d) *the classification or classifications of Taskforce;*
 - (e) *the amount of Taskforce applied or discharged;*
 - (f) *the location where Taskforce was applied or discharged (including a map of the area where Taskforce was applied and shows application and property boundaries, and evidence of aircraft flight lines from the application);*
 - (g) *a description of the wind speed and direction when Taskforce was applied or discharged;*
 - (h) *the name of the user of Taskforce and the user's address;*
 - (i) *a local weather forecast and source for the 24 hour periods before and after application.*

5.17. The requirement to keep records of application should be appropriate to the application frequency allowed for a given application method. Therefore, it may be determined whether aerial application has been carried out on a given piece of land within the past five years (in order to comply with the application rate restriction). The period for the keeping of application records (currently three years is

required by the existing controls for ground-based application) should be specified to be a time period at least as long as the minimum application interval for aerial application and also provide a period of overlap between applications. The Committee considers that, in light of the minimum aerial application interval of five years being specified, application records for aerial application of Taskforce must be retained for a period of at least seven years. The Committee consider that the time period for retention of records of use for ground-based application of Taskforce should remain at three years.

- 5.18. The Committee considers that, given the uncertainty that exists regarding the short and long-term adverse effects of Taskforce on the environment, the records of use that are required to be kept for aerial application should be provided to the EPA, and that these records should be provided within 3 months of the aerial application taking place. This will allow the EPA to act as a central repository for information on aerial operations involving Taskforce. The EPA will keep on-going records of the aerial use of Taskforce. This information will serve as useful reference material to monitor current or historical aerial applications of Taskforce. This control will also provide an opportunity to address the particular concern regarding access or availability of records of use that are being held by different aerial applicators, and that one applicator may not have any way to determine whether Taskforce has been aerially applied to the same location by another applicator. The Committee has added the following subclause to the control:

- (5) *Any person who applies, or engages another person to apply, Taskforce aerially must, as soon as reasonably practicable, but no later than three months, after the operation, provide a copy of the records required by subclause (3) to the EPA.*

Removal of restriction that limits application to ground-based methods only

- 5.19. In order to allow aerial application of Taskforce, the existing control that limits use of Taskforce to ground-based application only must be deleted.

Section 95A permissions for aerial Taskforce application

- 5.20. The applicant proposed that aerial application of Taskforce could be managed using a permission obtained under section 95A. The benefit of a permission system is that use of Taskforce will require 3rd party approval prior to application. The Committee notes that a permission system would provide a mechanism for monitoring the frequency of aerial application of Taskforce at a given location. However, Mr Maw from Environment Canterbury submitted that a permission requirement was unlikely to lead to an improved outcome, in addition to the requirements that are specified in the regional plan reporting requirements in Canterbury for permitted activities.
- 5.21. The Committee considers that imposing a permission control would introduce greater regulatory burden on end-users of Taskforce that is not justified given the level of restriction governing aerial application of Taskforce.

Aircaretm Accreditation

5.22. The applicant proposed that aerial applicators should be required to hold Aircaretm Accreditation in order to be able to apply Taskforce using aerial methods. The Committee does not consider that this proposal is required as existing obligations under HSNO (such as approved handler or records of use) already require aerial applicators to meet key handling and application measures. The use of technologies, such as DGPS tracking of substance application, would provide a means of compliance with some of the record keeping requirements imposed on the aerial application of Taskforce.

Comparison of risks, cost and benefits

5.23. The Committee considers that the level of the risk posed to the environment and human health from aerial application of Taskforce is uncertain, given the lack of ecotoxicological effects data. In light of this uncertainty, the Committee has adopted a precautionary approach to risk, which is considered to be significant.

5.24. The Committee considers that, with the modified controls in place, a sufficient level of benefit has been demonstrated to allow aerial application and to include kangaroo grass as a target pest weed. Although the precise level of risk is not known due to uncertainty surrounding the human health and ecotoxic effects of the substance, the Committee consider that the level of benefits presented will be sufficient to outweigh those risks after taking into account the uncertainty that exists.

5.25. The Committee considers that, with the modified controls in place, significant adverse impacts on the social or economic environment are not anticipated from the use of Taskforce.

5.26. The Committee considers that, with the modified controls in place, it is unlikely that the use of the substance on kangaroo grass or restricted aerial application will have a significant impact on Māori culture or traditional relationships with ancestral lands, water, sites, wāhi tapu, valued flora and fauna or other taonga.

5.27. The Committee considers that there is no evidence to suggest that the controlled use of the substance on kangaroo grass or restricted aerial application breaches the principles of the Te Tiriti o Waitangi/Treaty of Waitangi.

6. Best international practices and standards for the safe management of hazardous substances

6.1. The requirement in the Act to consider best international practices and standards for the safe management of hazardous substances is demonstrated by assessing the proposed modified reassessment against:

- the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals;
- international codes of practice and standards;
- overseas legislative requirements.

Globally Harmonised System

- 6.2. The controls applied to the substance as a result of the modified reassessment are based on the HSNO Regulations. These regulations specify a number of controls aimed at managing the risks posed by hazardous substances throughout their lifecycles, such as the requirement for protective clothing and provision of appropriate information, disposal and emergency management.
- 6.3. These regulations have previously met the requirements of section 141(1)(b) on best international practices and standards for the safe management of hazardous substances. In particular, the Committee notes that the GHS forms the basis of the HSNO hazard classification system and the requirements for the provision of information on hazards.

International Codes of Practice and Standards

- 6.4. The transportation controls on the substance requiring the segregation of incompatible substances are cross-references to the requirements of the Land Transport Rule, the Maritime Rule and the Civil Aviation Rule, which are themselves based on the International UN Transport of Dangerous Goods Model Regulations, the International Maritime Dangerous Goods Code and the International Civil Aviation Organization Regulations.
- 6.5. In addition, the Committee notes that the substances will be managed in accordance with NZS8409:2004 Management of Agrichemicals. This code represents the best practice and standard for the safe management of agrichemicals in New Zealand and meets international standards.

Overseas Legislative Requirements

- 6.6. The Committee notes that Taskforce is approved for aerial application in Australia. Inclusion of aerial application of Taskforce for the control of Chilean needle grass in pasture in New Zealand is consistent with Australia. Use of Taskforce for the control of kangaroo grass does not appear to be required in Australia where kangaroo grass is not classed as a pest weed species.

7. Conclusions

- 7.1. The Committee considers that the level of risk posed by the modified use of Taskforce cannot be determined to be negligible, and that a decision on this application should be taken in accordance with clause 27.
- 7.2. The Committee considers that, with the modified controls in place:
 - significant benefits may be derived for New Zealand by allowing aerial application of Taskforce with regards to battling the spread of CNG, and the use of Taskforce on kangaroo grass;
 - despite uncertainty surrounding the change in level of risk arising from aerial application of Taskforce, or use of Taskforce on kangaroo grass, to human health and the environment, any

increase in risks from the effects associated with modified reassessment of Taskforce are likely to be minimised;

- significant adverse impacts on the social or economic environment with Taskforce are not anticipated;
- it is unlikely that modified reassessment of Taskforce could have a significant impact on Māori culture or traditional relationships with ancestral lands, water, sites, wāhi tapu, valued flora and fauna or other taonga or will breach the principles of the Te Tiriti o Waitangi/Treaty of Waitangi.

7.3. The Committee considers that the benefits associated with the proposed modifications to the permitted use of Taskforce outweigh the risks and costs.

7.4. The Committee notes that use data for Taskforce (such as location, quantities used) is useful information in the context of future reassessments of the approval of Taskforce, particularly given the uncertainty relating to the risks of adverse effects resulting from use. As such, the Committee recommends that data be gathered to provide a more complete picture of the use of Taskforce, its impact on the control of CNG, nassella tussock and kangaroo grass.

8. Decision

8.1. The Committee determines that the application meets the criteria for consideration under section 63A.

8.2. Having considered all the effects associated with the reassessment proposal and best international practices and standards for the safe management of hazardous substances, the Committee considers that:

8.2.1. Kangaroo grass shall be added to the list of pest weeds that Taskforce may be used to control;

8.2.2. Taskforce may be applied onto pasture using a maximum application rate and frequency of 3 L (Taskforce) per hectare, once per year;

8.2.3. the minimum time period between aerial applications of Taskforce should be five years.

8.3. The modified reassessment of the hazardous substance, Taskforce, is thus approved, in accordance with clause 27, with controls as listed in Appendix A.

27 June 2012

Signed by

Date:

Manuka Henare
Chair, Decision Making Committee
Environmental Protection Authority

Appendix A: Controls applying to Taskforce

Appendix table 1: Revised controls for Taskforce – codes, regulations and variations

Control Code ⁶	Regulation ⁷	Topic	Variations
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Hazardous Substances (Classes 6, 8, and 9 Controls) Regulations 2001

T1	11-27	Limiting exposure to toxic substances	No Acceptable Daily Exposure (ADE), Potential Daily Exposure (PDE) or Threshold Exposure Level (TEL) values are set at this time.
T2	29, 30	Controlling exposure in places of work	No Workplace Exposure Standard (WES) values are set for Taskforce or any components of Taskforce at this time.
T4	7	Requirements for equipment used to handle hazardous substances	
T5	8	Requirements for protective clothing and equipment	
T7	10	Restrictions on the carriage of toxic or corrosive substances on passenger service vehicles	

Hazardous Substances (Identification) Regulations 2001

I1	6, 7, 32-35, 36 (1)-(7)	General identification requirements Regulation 6 – Identification duties of suppliers Regulation 7 – Identification duties of persons in charge Regulations 32 and 33 – Accessibility of information Regulations 34, 35, 36(1)-(7) – Comprehensibility, Clarity and Durability of information	
I8	14	Priority identifiers for toxic substances	
I9	18	Secondary identifiers for all hazardous substances	
I16	25	Secondary identifiers for toxic substances	

⁶ Note: The numbering system used in this column relates to the coding system used in the EPA HSNO Control Regulations. This links the hazard classification categories to the regulatory controls triggered by each category. It is available from the EPA New Zealand website <http://www.epa.govt.nz/Publications/ER-UG-05.pdf> and is also contained in the EPA New Zealand User Guide to the HSNO Control Regulations.

⁷ These Regulations form the controls applicable to this substance. Refer to the cited Regulations for the formal specification, and for definitions and exemptions. The accompanying explanation is intended for guidance only.

Control Code ⁶	Regulation ⁷	Topic	Variations
I17	26	Use of Generic Names	
I18	27	Use of Concentration Ranges	
I19	29-31	Alternative information in certain cases Regulation 29 – Substances in fixed bulk containers or bulk transport containers Regulation 30 – Substances in multiple packaging Regulation 31 – Alternative information when substances are imported	
I20	36(8)	Durability of information for class 6.1 substances	
I21	37-39, 47-50	Documentation required in places of work Regulation 37 – Documentation duties of suppliers Regulation 38 – Documentation duties of persons in charge of places of work Regulation 39 – General content requirements for documentation Regulation 47 – Information not included in approval Regulation 48 – Location and presentation requirements for documentation Regulation 49 – Documentation requirements for vehicles Regulation 50 – Documentation to be supplied on request	
I28	46	Specific documentation requirements for toxic substances	
I29	51, 52	Signage requirements	
I30	53	Advertising corrosive and toxic substances	

Additional identification controls are set under s77A, and detailed below.

Hazardous Substances (Packaging) Regulations 2001

P1	5, 6, 7 (1), 8	General packaging requirements Regulation 5 – Ability to retain contents Regulation 6 – Packaging markings Regulation 7(1) – Requirements when packing hazardous substance	
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Control Code ⁶	Regulation ⁷	Topic	Variations
		Regulation 8 – Compatibility Regulation 9A and 9B – Large Packaging	
P3	9	Packaging requirements for substances packed in limited quantities	
P13	19	Packaging requirements for toxic substances	
PS4	Schedule 4	This schedule describes the minimum packaging requirements that must be complied with when a substance is packaged in limited quantities	

Hazardous Substances (Disposal) Regulations 2001

D4	8	Disposal requirements for toxic and corrosive substances	
D6	10	Disposal requirements for packages	
D7	11, 12	Disposal information requirements	
D8	13, 14	Disposal documentation requirements	

Additional disposal controls are set under s77A, and detailed below.

Hazardous Substances (Emergency Management) Regulations 2001

EM1	6, 7, 9-11	Level 1 emergency management information: General requirements	
EM6	8(e)	Information requirements for toxic substances	
EM8	12-16, 18-20	Level 2 emergency management documentation requirements	
EM11	25-34	Level 3 emergency management requirements – emergency response plans	
EM12	35-41	Level 3 emergency management requirements: secondary containment	Variation to regulation 36:

Addition of subclauses after subclause (3) of Regulation 36 of the Hazardous Substances (Emergency Management Controls) Regulations 2001 (control EM12):

“The following subclauses shall be added after subclause (3) of regulation 36:

(4) *For the purposes of this regulation, and regulations 37 to 40, where this substance is contained in pipework that is installed and operated so as to manage any loss of containment in the pipework it—*

(a) *is not to be taken into account in determining whether a place is required to have a*

Control Code ⁶	Regulation ⁷	Topic	Variations
		<p><i>secondary containment system; and</i></p> <p><i>(b) is not required to be located in a secondary containment system.</i></p> <p><i>(5) In this clause, pipework—</i></p> <p><i>(a) means piping that—</i></p> <p><i>(i) is connected to a stationary container; and</i></p> <p><i>(ii) is used to transfer a hazardous substance into or out of the stationary container; and</i></p> <p><i>(b) includes a process pipeline or a transfer line.”</i></p> <p>The following subclauses shall be added after subclause (1) of regulation 37:</p> <p><i>(2) If pooling substances that do not have class 1 to 5 hazard classifications are held in a place above ground in containers each of which has a capacity of 60 litres or less—</i></p> <p><i>(a) if the place’s total pooling potential is less than 20,000 litres, the secondary containment system must have a capacity of at least 25% of that total pooling potential:</i></p> <p><i>(b) if the place’s total pooling potential is 20,000 litres or more, the secondary containment system must have a capacity of the greater of—</i></p> <p><i>(i) 5% of the total pooling potential; or</i></p> <p><i>(ii) 5,000 litres.</i></p> <p><i>(3) Pooling substances to which subclause (2) applies must be segregated where appropriate to ensure that leakage of one substance may not adversely affect the container of another substance.</i></p> <p>The following subclauses shall be added after subclause (1) of regulation 38:</p> <p><i>(2) If pooling substances which do not have class 1 to 5 hazard classifications are held in a place above ground in containers 1 or more of which have a capacity of more than 60 litres but none of which have a capacity of more than 450 litres—</i></p> <p><i>(a) if the place’s total pooling potential is less than 20,000 litres, the secondary containment system must have a capacity of either 25% of that total pooling potential or 110% of the capacity of the largest container, whichever is the greater:</i></p> <p><i>(b) if the place’s total pooling potential is 20,000 litres or more, the secondary containment system must have a capacity of the greater of—</i></p> <p><i>(i) 5% of the total pooling potential; or</i></p> <p><i>(ii) 5,000 litres.</i></p> <p><i>(3) Pooling substances to which subclause (2) applies must be segregated where appropriate to ensure that the leakage of one substance may not adversely affect the container of another substance.</i></p>	
EM13	42	Level 3 emergency management requirements: signage	

Control Code ⁶	Regulation ⁷	Topic	Variations
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Additional emergency management controls are set under s77A, and detailed below.

Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004

Regulations 4 to 43 where applicable	The Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004 prescribe a number of controls relating to tank wagons and transportable containers and must be complied with as relevant
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Additional controls set under s77A

Additional Control 1	<p>Controls associated with stationary container systems for Taskforce</p> <p>The controls relating to stationary container systems, as set out in Schedule 8 of the Hazardous Substances Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004 (Supplement to the New Zealand Gazette, 26 March 2004, No. 35, page 767), as amended, shall apply to Taskforce, notwithstanding clause 1(1) of that schedule.</p>
Additional Control 2	<p>Requirements for Environmental Exposure Limits (EELs) for Taskforce</p> <p>Regulations 32 to 45 of the Hazardous Substances (Classes 6, 8 and 9 Controls) regulations 2001 apply to Taskforce as if it were a class 9.2A substance. However, no EELs are set at this time, and the default values deleted.</p>
Additional Control 3	<p>Manufacturing restriction for Taskforce</p> <p>Taskforce shall not be manufactured in New Zealand.</p>
Additional Control 4	<p>Package size restriction for Taskforce</p> <p>The minimum package size for Taskforce shall be 5 L.</p>
Additional Control 5	<p>Additional identification and emergency management requirements for Taskforce.</p> <ol style="list-style-type: none"> (1) Taskforce must be identified by an indication that it is ecotoxic and may pose a risk to non-target plants. (2) In addition to any information required by subclause (1), Taskforce must be identified by the following information: <ol style="list-style-type: none"> (a) an indication of the circumstances in which it may harm living organisms; (b) an indication of the kind and extent of the harm it is likely to cause to living organisms; (c) an indication of the steps to be taken to prevent harm to living organisms; (d) an indication of its general type of hazard (for example, "ecotoxic in the soil environment"); (e) an indication of the maximum application rates and frequencies for ground and for aerial application; and, (f) an indication that the minimum droplet size for aerial application should be coarse, as specified in NZS:8409 Management of Agrichemicals in accordance with BCPC classification. (3) The required documentation for Taskforce must include the following hazardous property and

Additional controls set under s77A

	<p>precautionary information:</p> <ul style="list-style-type: none"> (a) its general degree and general type of hazard; (b) a full description of the circumstances in which, and the extent to which, it may harm living organisms; (c) a full description of the steps to be taken to prevent harm to living organisms; (d) a summary of the available acute and chronic data used to define the subclass or subclasses in which it is classified; (e) its bio-concentration factor or octanol-water partition coefficient; (f) its expected soil or water degradation rate, expressed as either:— <ul style="list-style-type: none"> (i) the number of days required to achieve a 50% or 90% reduction of the original substance concentration; or (ii) the results of a 28-day ready biodegradability test: (g) any environmental effect level (EEL) specified in the Authority approval of Taskforce or for any of its components. <p>(4) The following information must be provided with Taskforce:</p> <ul style="list-style-type: none"> (a) a description of the parts of the environment likely to be immediately affected by it; (b) a description of its typical effects on those parts of the environment; and, (c) a statement of any immediate actions that may be taken to prevent Taskforce from entering, or affecting, those parts of the environment.
Additional Control 6	<p>Notification of aerial applications of Taskforce</p> <p>(1) No person may apply, or engage another person to apply, Taskforce unless the person has given notice of the proposed application to—</p> <ul style="list-style-type: none"> (a) the EPA; (b) occupiers and owners of land, dwellings or buildings immediately abutting the application area; (c) the relevant local iwi rūnanga representatives. <p>(2) The notice referred to in subclause (1) must—</p> <ul style="list-style-type: none"> (a) be given with sufficient prior notification, at least 10 working days but no more than 3 months in advance of the aerial application; and (b) specify the following: <ul style="list-style-type: none"> (i) the location of application area that Taskforce will be aurally applied to; (ii) the date and approximate duration of each application; (iii) the name of the organisation/s undertaking the application; or (iv) contact details for the person in charge of the application (phone, email or postal address).
Additional Control 7	<p>Approved Handler requirements for Taskforce</p> <p>(1) Taskforce must be under the control of an approved handler when Taskforce is:—</p>

Additional controls set under s77A

	<ul style="list-style-type: none"> (a) applied in a wide dispersive manner; or (b) used by a commercial contractor <p>(2) Subclause (1) is deemed to be complied with if, in the case of aerial application of Taskforce, the person who carried out the application has a current pilot chemical rating in accordance with Part 61 of the Civil Aviation Rules.</p>
Additional Control 8	<p>Use restriction for Taskforce</p> <ul style="list-style-type: none"> (1) Taskforce shall not be applied onto or into water. (2) Taskforce shall not be aerially applied to any place if rainfall that may lead to runoff of the substance from the treated area is forecast or expected within 24 hours of the completion of an application. (3) For the purpose of subclause (1), “water” means water in all its physical forms, whether flowing or not, and whether over or under ground, but does not include water in any form while in a pipe, tank or cistern and, in the case of aerial application, includes known intermittently flowing rivers (such as ephemeral waterways).
Additional Control 9	<p>Target pest restriction for Taskforce</p> <p>The use of Taskforce shall be restricted to use on pasture to control Chilean needle grass, nassella tussock or kangaroo grass.</p>
Additional Control 10	<p>Maximum application rate requirements for Taskforce</p> <ul style="list-style-type: none"> (1) Taskforce may be applied at a maximum rate of 3L / ha, with a maximum application frequency of once per year. (2) Notwithstanding subclause (1), the minimum interval between aerial applications of Taskforce is 5 years. (3) If Taskforce has been aerially applied to a place, no person shall apply Taskforce using ground-based equipment to that place until a minimum period of 1 year has elapsed since that aerial application was completed.
Additional Control 11	<p>Requirements for keeping records of use of Taskforce</p> <ul style="list-style-type: none"> (1) A person in charge of Taskforce must ensure that a written record is kept of:— <ul style="list-style-type: none"> (a) each ground-based application of Taskforce if 3 L or more of Taskforce is applied within 24 hours in a place where Taskforce is likely to enter air or water and leave the place; and, (b) each aerial application of Taskforce. (2) For ground-based application of Taskforce, a record kept under subclause (1) must include the following information: <ul style="list-style-type: none"> (a) the name of the substance; (b) the date and time of each application or discharge of Taskforce; (c) the classification or classifications of Taskforce; (d) the amount of Taskforce applied or discharged; (e) the location where Taskforce was applied or discharged; (f) if Taskforce is applied to or discharged in the air, a description of the wind speed and

Additional controls set under s77A

	<p>direction when Taskforce was applied or discharged;</p> <p>(g) the name of the user of Taskforce and the user's address.</p> <p>(3) For aerial application of Taskforce, a record kept under subclause (1) must include the following information:</p> <p>(a) the name of the substance;</p> <p>(b) the target pest species;</p> <p>(c) the date and time of each application or discharge of Taskforce;</p> <p>(d) the classification or classifications of Taskforce;</p> <p>(e) the amount of Taskforce applied or discharged;</p> <p>(f) the location where Taskforce was applied or discharged (including a map of the area where Taskforce was applied and shows application and property boundaries, and evidence of aircraft flight lines from the application);</p> <p>(g) a description of the wind speed and direction when Taskforce was applied or discharged; and,</p> <p>(h) the name of the user of Taskforce and the user's address;</p> <p>(i) a local weather forecast and source for the 24 hour periods before and after application.</p> <p>(4) After the date on which Taskforce that the record relates to is applied or discharged, a record must be kept for not less than—</p> <p>(a) 3 years (for ground-based application); or</p> <p>(b) 7 years (for aerial application).</p> <p>(5) Any person who applies, or engages another person to apply, Taskforce aerially must, as soon as reasonably practicable, but no later than three months, after the operation, provide a copy of the records required by subclause (3) to the EPA.</p>
<p>Additional Control 12</p>	<p>Additional disposal requirements for Taskforce</p> <p>(1) Taskforce must be disposed of—</p> <p>(a) by treating Taskforce using a method that changes the characteristics or composition of Taskforce so that Taskforce is no longer a hazardous substance; or</p> <p>(b) by discharging Taskforce into the environment in accordance with the controls on the substance; or</p> <p>(c) by exporting Taskforce from New Zealand as waste.</p> <p>(2) In subclause (1), treating Taskforce—</p> <p>(a) includes depositing Taskforce in a landfill, incinerator, or a sewage facility if the landfill, incinerator, or sewage facility will treat Taskforce by changing the characteristics or composition of Taskforce so that Taskforce is no longer a hazardous substance; but</p> <p>(b) does not include dilution of Taskforce with any other substance before discharge into the environment.</p>

Additional controls set under s77A

Additional Control 13	Control for the protection of bees from effects of the use of Taskforce A person must not apply Taskforce in an application area— <ul style="list-style-type: none">(a) if bees are foraging in the area and Taskforce is in a form in which bees are likely to be exposed to it; or(b) to any plant or tree that is likely to be visited by bees if—<ul style="list-style-type: none">(i) the plant or tree is in open flower or part bloom; or(ii) the plant or tree is likely to flower after application of Taskforce within 10 days.
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Appendix B: Decision path for applications for modified reassessment for amendments to hazardous substance approvals

Context

This decision path describes the decision-making process for applications to modify an approval to import or manufacture a hazardous substance under section 63A of the HSNO Act.

Introduction

The purpose of the decision path is to provide the HSNO decision maker⁸ with guidance so that all relevant matters in the HSNO Act and the Methodology have been addressed. It does not attempt to direct the weighting that the HSNO decision maker may decide to make on individual aspects of an application.

In this document 'section' refers to sections of the HSNO Act, and 'clause' refers to clauses of the Methodology.

The decision path has two parts –

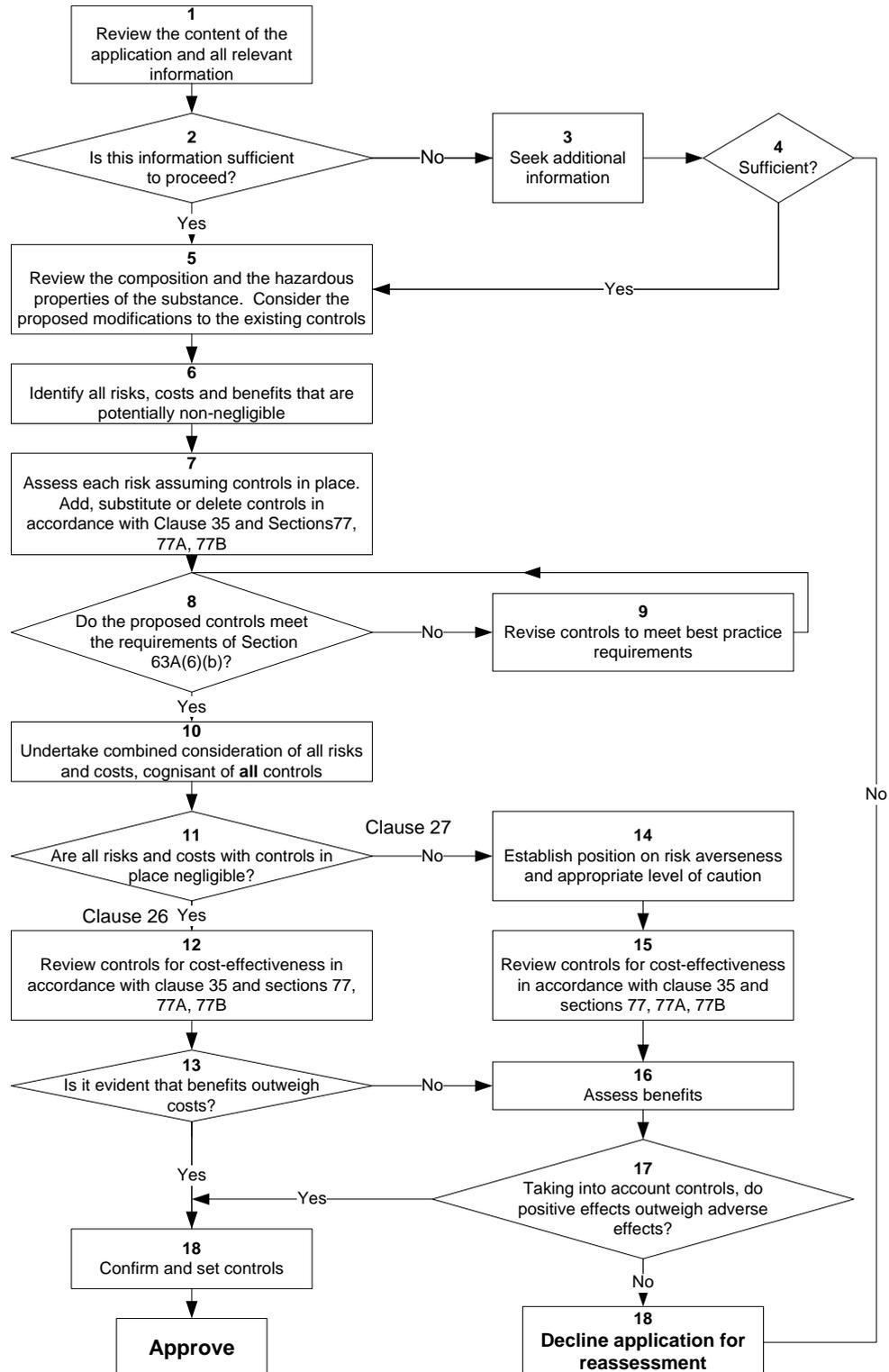
- Flowchart (a logic diagram showing the process prescribed in the Methodology and the HSNO Act to be followed in making a decision); and,
- Explanatory notes (discussion of each step of the process).

Of necessity the words in the boxes in the flowchart are brief, and key words are used to summarise the activity required. The explanatory notes provide a comprehensive description of each of the numbered items in the flowchart, and describe the processes that should be followed to achieve the described outcome.

For proper interpretation of the decision path it is important to work through the flowchart in conjunction with the explanatory notes.

⁸ The HSNO decision maker refers to either the EPA Board or any committee or persons with delegated authority from the Board.

For proper interpretation of the decision path it is important to work through the flowchart in conjunction with the explanatory notes



Explanatory Notes

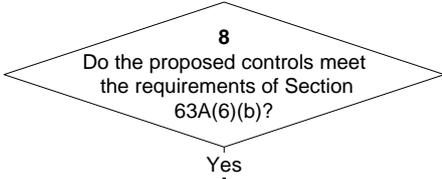
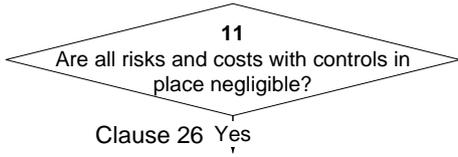
Item 1:	<p>Review the content of the application and all relevant information</p> <p>Review the application, the E&R Report, and information received from experts and that provided in submissions (where relevant) in terms of section 28(2) of the Act and clauses 8, 15, 16 and 20 of the Methodology.</p> <p>While section 63A is not mentioned in section 53 (public notification), sections 63A(4) and (5) provide discretion for the HSNO decision maker to consider public notification (cf section 53(2)) and guidance re consultation where an application is not publicly notified.</p>
Item 2:	<p>Is this information sufficient to proceed?</p> <p>Review the information and determine whether or not there is sufficient information available to make a decision.</p>
Item 3:	<p>(if 'no') Seek additional information</p> <p>If there is not sufficient information then additional information may need to be sought under section 52 or 58 of the Act.</p> <p>If the applicant is not able to provide sufficient information for consideration then the application is not approved. In these circumstances the HSNO decision maker may choose to decline the application, or the application may lapse.</p>
Item 4	<p>Sufficient?</p> <p>When additional information has been sought, has this been provided, and is there now sufficient information available to make a decision?</p> <p>If the HSNO decision maker is not satisfied that it has sufficient information for consideration, then the application for reassessment must be declined (see item 18).</p>
Item 5:	<p>(if 'yes' from item 2 or from item 4) Review the composition and the hazardous properties of the substance, and the proposed modifications to the existing controls</p> <p>Review the composition of the substance, its hazardous properties, and the existing suite of controls on the substance. The level of detail for this review will depend on the nature of the application for modified reassessment. In most cases a detailed review will not be required.</p> <p>Consider the proposed modifications to the existing controls.</p>
Item 6:	<p>Identify all risks, costs and benefits that are potentially non-negligible⁹</p> <p>The modified reassessment process concentrates on a specific aspect of the approval (section 63A(1)(a)). All risks, costs and benefits that are potentially non-negligible need to be identified. However, emphasis should be placed on effects that are expected to change as a result of the proposed changes to controls.</p> <p>Costs and benefits are defined in the Methodology as the value of particular effects. However, in most cases these 'values' are not certain and have a likelihood attached to them. Thus costs and risks are generally synonymous and may be addressed together.</p> <p>Examples of costs that cannot be considered as risks are one-off direct financial costs incurred by</p>

⁹ Relevant effects are **marginal effects**, or the changes that will occur as a result of the substance being available. Financial costs associated with preparing and submitting an application are not marginal effects and are not effects of the substance(s) and are therefore not taken into account in weighing up adverse and positive effects. These latter types of costs are sometimes called 'sunk' costs since they are incurred whether or not the application is successful.

	<p>applicants that cannot be considered as 'sunk' costs (see footnote 1). Where such costs arise they will be considered in the same way as risks, but their likelihood of occurrence will be more certain.</p> <p>Identification is a two-step process that scopes the range of possible effects (risks, costs and benefits).</p>
Step 1:	<p>Identify all possible risks and costs (adverse effects) and benefits (positive effects) associated with the approval of the substance(s), and based on the range of areas of impact described in clause 9 of the Methodology and sections 5 and 6 of the Act¹⁰. Consider the effects of the substance through its lifecycle (clause 11) and include the likely effects of the substance being unavailable (sections 29(1)(a)(iii) and 29(1)(b)(iii)).</p> <p>Relevant costs and benefits are those that relate to New Zealand and those that would arise as a consequence of approving the application (clause 14).</p> <p>Consider short term and long term effects.</p> <p>Identify situations where risks and costs occur in one area of impact or affect one sector and benefits accrue to another area or sector; that is, situations where risks and costs do not have corresponding benefits.</p>
Step 2:	<p>Document those risks, costs and benefits that can be readily concluded to be negligible¹¹, and eliminate them from further consideration.</p> <p>Note that where there are costs that are not associated with risks some of them may be eliminated at this scoping stage on the basis that the financial cost represented is very small and there is no overall effect on the market economy.</p>
Item 7:	<p>Assess each risk assuming controls in place. Add, substitute or delete controls in accordance with clause 35 and sections 77, 77A and 77B of the Act.</p> <p>The assessment of potentially non-negligible risks and costs should be carried out in accordance with clauses 12, 13, 15, 22, 24, 25, and 29 to 32 of the Methodology. The assessment is carried out with the default controls in place.</p> <p>Assess each potentially non-negligible risk and cost estimating the magnitude of the effect if it should occur and the likelihood of its occurring. Where there are non-negligible financial costs that are not associated with risks then the probability of occurrence (likelihood) may be close to 1. Relevant information provided in submissions should be taken into account.</p> <p>The distribution of risks and costs should be considered, including geographical distribution and distribution over groups in the community, as well as distribution over time. This information should be retained with the assessed level of risk/cost.</p> <p>This assessment includes consideration of how cautious the HSNO decision maker will be in the face of uncertainty (section 7). Where there is uncertainty, it may be necessary to estimate scenarios for lower and upper bounds for the adverse effect as a means of identifying the range of uncertainty (clause 32). It is also important to bear in mind the materiality of the uncertainty and how significant the uncertainty is for the decision (clause 29(a)).</p> <p>Consider the HSNO decision maker's approach to risk (clause 33 of the Methodology) or how risk</p>

¹⁰ Effects on the natural environment, effects on human health and safety, effects on Maori culture and traditions, effects on society and community, effects on the market economy.

¹¹ Negligible effects are defined in the Annotated Methodology as "Risks which are of such little significance in terms of their likelihood and effect that they do not require active management and/or after the application of risk management can be justified by very small levels of benefits.

	<p>averse the HSNO decision maker should be in giving weight to the residual risk, where residual risk is the risk remaining after the imposition of controls.</p> <p>See EPA report 'Approach to Risk' for further guidance¹².</p> <p>Where it is clear that residual risks are non-negligible and where appropriate controls are available, add substitute or delete controls in accordance with sections 77 and 77A of the Act to reduce the residual risk to a tolerable level. If the substance has toxic or ecotoxic properties, consider setting exposure limits under section 77B. While clause 35 is relevant here, in terms of considering the costs and benefits of changing the controls, it has more prominence in items 12 and 15.</p> <p>If changes are made to the controls at this stage then the approach to uncertainty and the approach to risk must be revisited.</p>
Item 8:	<p>Do the proposed controls meet the requirements of Section 63A(6)(b)?</p> <p>Consider whether the proposed controls meet best international practices and standards for the safe management of hazardous substances. This includes the full suite of proposed controls including existing controls and modified controls.</p>
Item 9:	<p>(if 'no' from item 8) Revise controls to meet best practice requirements</p> <p>If the controls do not meet the best international practice criteria, then modify the controls so that they do meet them.</p>
Item 10:	<div style="text-align: center;">  <p>8 Do the proposed controls meet the requirements of Section 63A(6)(b)? Yes</p> </div> <p>(if 'yes' from item 8) Undertake combined consideration of all risks and costs, cognisant of proposed controls</p> <p>Once the risks and costs have been assessed individually consider all risks and costs together as a 'basket' of risks/costs. If it is feasible and/or appropriate, this may involve combining groups of risks and costs as for Clause 34 of the Methodology. The purpose of this step is to consider synergistic effects and determine whether these may change the level of individual risks.</p>
Item 11:	<p>Are all risks and costs with controls in place negligible?</p> <p>Looking at individual risks in the context of the 'basket' of risks, consider whether any of the residual risks (costs) are negligible.</p>
Item 12:	<div style="text-align: center;">  <p>11 Are all risks and costs with controls in place negligible? Clause 26 Yes</p> </div> <p>(if 'yes' from item 11) Review controls for cost-effectiveness in accordance with clause 35</p>

¹² <http://www.epa.govt.nz/Publications/Approach-to-Risk.pdf>

	<p>and sections 77, 77A and 77B</p> <p>Where all risks are negligible the decision must be made under clause 26 of the Methodology.</p> <p>Consider the cost-effectiveness of the proposed individual controls and exposure limits. Where relevant and appropriate, add, substitute or delete controls whilst taking into account the view of the applicant, and the cost-effectiveness of the full package of controls.</p>
<p>Item 13:</p>	<p>Is it evident that benefits outweigh costs?</p> <p>Risks have already been determined to be negligible (item 9). In the unusual circumstance where there are non-negligible costs that are not associated with risks they have been assessed in item 7.</p> <p>Costs are made up of two components: internal costs or those that accrue to the applicant, and external costs or those that accrue to the wider community.</p> <p>Consider whether there are any non-negligible external costs that are not associated with risks.</p> <p>If there are no external non-negligible costs then external benefits outweigh external costs. The fact that the application has been submitted is deemed to demonstrate existence of internal or private net benefit, and therefore total benefits outweigh total costs¹³.</p> <p>As indicated above, where risks are deemed to be negligible, and the only identifiable costs resulting from approving an application are shown to accrue to the applicant, then a cost-benefit analysis will not be required. The act of an application being lodged will be deemed by the HSNO decision maker to indicate that the applicant believes the benefits to be greater than the costs.</p> <p>However, if this is not the case and there are external non-negligible costs then all benefits need to be assessed (via item 16).</p>
<p>Item 14:</p>	<div data-bbox="352 1189 959 1301" data-label="Diagram"> <pre> graph LR A{11 Are all risks and costs with controls in place negligible?} -- No --> B[Clause 27] </pre> </div> <p>(if 'no' from item 10) Establish HSNO decision maker's position on risk averseness and appropriate level of caution</p> <p>Although 'risk averseness' (approach to risk, clause 33) is considered as a part of the assessment of individual risks, it is good practice to consolidate the view on this if several risks are non-negligible. This consolidation also applies to the consideration of the approach to uncertainty (section 7).</p>
<p>Item 15:</p>	<p>Review controls for cost-effectiveness in accordance with clause 35 and sections 77, 77A and 77B</p> <p>This constitutes a decision made under clause 27 of the Methodology (taken in sequence from items 10, 13, 14 and 15).</p> <p>Consider (a) whether any of the non-negligible risks can be reduced by varying the controls in accordance with section 77 and 77A of the Act, and (b) the cost-effectiveness of the controls.</p>

¹³Technical Guide 'Decision making' section 4.9.3. Where risks are negligible and the costs accrue only to the applicant, no explicit cost benefit analysis is required. In effect, the HSNO decision maker takes the act of making an application as evidence that the benefits outweigh the costs. See also Protocol Series 1 'General requirements for the Identification and Assessment of Risks, Costs, and Benefits'

	<p>Where relevant and appropriate, add, substitute or delete controls whilst taking into account the view of the applicant, and making sure that the benefits of doing so outweigh the costs. As for item 6, If the substance has toxic or ecotoxic properties, consider exposure limits under section 77B.</p>
Item 16:	<p>(if 'no' from item 13, or in sequence from item 15) Assess benefits</p> <p>Assess benefits or positive effects in terms of clause 13 of the Methodology.</p> <p>Since benefits are not certain, they are assessed in the same way as risks. Thus the assessment involves estimating the magnitude of the effect if it should occur and the likelihood of its occurring. This assessment also includes consideration of the HSNO decision maker's approach to uncertainty or how cautious the HSNO decision maker will be in the face of uncertainty (section 7). Where there is uncertainty, it may be necessary to estimate scenarios for lower and upper bounds for the positive effect.</p> <p>An understanding of the distributional implications of a proposal is an important part of any consideration of costs and benefits, and the distribution of benefits should be considered in the same way as for the distribution of risks and costs. The HSNO decision maker will in particular look to identify those situations where the beneficiaries of an application are different from those who bear the costs¹⁴. This is important not only for reasons related to fairness but also in forming a view of just how robust any claim of an overall net benefit might be. It is much more difficult to sustain a claim of an overall net benefit if those who enjoy the benefits are different to those who will bear the costs. Thus where benefits accrue to one area or sector and risks and costs are borne by another area or sector then the HSNO decision maker may choose to be more risk averse and to place a higher weight on the risks and costs.</p> <p>As for risks and costs the assessment is carried out with the default controls in place.</p>
Item 17:	<p>Taking into account controls, do positive effects outweigh adverse effects?</p> <p>In weighing up positive and adverse effects, consider clause 34 of the Methodology. Where possible combine groups of risks, costs and benefits or use other techniques such as dominant risks and ranking of risks. The weighing up process takes into account controls proposed in items 5, 7 (9), 12 and/or 15.</p> <p>Where this item is taken in sequence from items 14, 15 and 16 (i.e. risks are not negligible) it constitutes a decision made under clause 27 of the Methodology.</p> <p>Where this item is taken in sequence from items 11, 12 and 13 (i.e. risks are negligible, and there are external or public costs) it constitutes a decision made under clause 26 of the Methodology.</p>
Item 18:	<p>(if 'no' from item 4 or item 17) Decline application for reassessment</p> <p>(from item 4) The Act is silent on the situation if there is insufficient information to consider the application. However, sections 55-61 (section 63A(3)) are deemed to hold, therefore the HSNO decision maker concludes that the application for reassessment may be declined if there is insufficient information.</p> <p>(from item 17) The HSNO decision maker may decline the application under section 63A(6) after taking into account the effects of the substance and best international practices and standards.</p> <p>Section 63A(2)(b) notes that this modified reassessment process cannot result in an approval to import or manufacture the substance being revoked. Therefore, if the process results in a 'decline' decision, then the result is that the modified reassessment of the substance is not approved, and the existing controls remain in force.</p>

¹⁴ Clause 13 of the Methodology

