



DFO 41

Safe Management of

Hazardous Substances

Logistics Series

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Authority Order

DFO 41 Safe Management of Hazardous Substances

Issued by Chief Joint Defence Services

Authority

1. DFO 41 *Safe Management of Hazardous Substances* is issued by the Chief Joint Defence Services under the delegated authority of the Chief of Defence Force, pursuant to s 27(2) of the Defence Act 1990, to regulate the management of hazardous substances in connection with the functions and operations of the New Zealand Defence Force.
2. This Order applies to all members of the NZDF at all times while undertaking any activity or function involving hazardous substances.
3. Failure to comply with this order may give rise to an offence under s 38 or s 39 of the Armed Forces Discipline Act 1971, or in relation to Members of the Civil Staff and other persons who are not members of the Armed Forces a prosecution by WorkSafe for breach of r 1.2(4)(b) of the Health and Safety at Work (Hazardous Substances) Regulations 2017 and disciplinary action for failing to follow a lawful instruction under the Civil Staff Code of Conduct.

Conflict

4. Nothing in this order is to be construed as prevailing over any relevant Act of Parliament or Regulations made under it or Defence Force Orders issued by the Chief of Defence Force.
5. Any conflict between this Defence Force Order and any other Defence Force Order is to be reported to the Approving Authority without delay.

Signed on original

C.A.S LOTT

Chief Joint Defence Services

05 June 2018

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Preliminary Provisions

Purpose

1. This order has been developed to address the New Zealand Defence Force's pan-defence requirements for policy, management, operation, transport, storage and disposal of hazardous substances.
2. This order sets out how hazardous substances are to be managed in order to satisfy the [Health and Safety at Work Act 2015](#) and [DFO 10 Defence Force Orders for Safety](#).

Application

3. This order applies at all times to all members of the NZDF while undertaking any activity with the NZDF or within a defence area, including carrying out any operational activity.
4. This order requires all members of the NZDF to ensure, so far as is reasonably practicable, that the—
 - a. health and safety of other persons (including New Zealand Cadet Forces, other workers, members of visiting forces) or any other person is not put at risk from the hazardous substances stored, processed, used and transported by the NZDF within a defence area or elsewhere; and
 - b. workplace, the means of entering and exiting the workplace, and anything arising from the workplace are without risks to the health and safety of any person (including New Zealand Cadet Forces, other workers or members of visiting forces).
5. This order does not apply to defence areas under the control of the Government Communications Security Bureau.
6. The commencement date for DFO 41 Version 1.02 is 25 November 2019.
7. This order is effective from the day of promulgation.

Repeal

8. DFO 53 is repealed from the date this order takes effect. Refer to Schedule A - Consequential Amendments to NZDF Orders and Publications.

Authorising Authority, Approving Authority and Custodian

9. The Authorising Authority for DFO 41 is the Chief Joint Defence Services.
10. The Approving Authority for DFO 41 is the Commander Logistics.
11. The Custodian for DFO 41 is the Hazardous Substances Assurance Officer.

Meanings of terms

12. Terms used in DFO 41, and not explained elsewhere, are defined in Annex A - Meanings of Terms.

Statement of equity and inclusion

13. The content and tone of DFO 41 is non-discriminatory and non-prejudicial. Every effort has been made, so far as practicable, to ensure that there is no disproportionate impact on gender, ethnicity, age, diversity or disabilities unless the expression is relevant to the order, direction or instruction.

Authoritative version of the DFO 41

14. The online copy of DFO 41 is the authoritative version. Any printed copy or CD-ROM copy is deemed uncontrolled and is to be used for guidance only.

Related publications

15. The following NZDF hazardous substances publications are issued under paragraph [1.1 c.](#) of this order and are to be complied with—
- A. [NZDP 4.2.2 Hazardous Substances: Class 1 Ammunition and Explosives](#)
 - B. [NZDP 4.2.3 Hazardous Substances: Class 2–9](#)
 - C. [DFO 10 Defence Force Orders for Safety](#)
 - D. [DFO 52 Defence Force Orders for Materiel Management](#)
 - E. [DFO 081 Risk Management](#)
 - F. [DFO 9 Defence Force Standards for Operating Airworthiness](#)
 - G. [DFO\(N\) Defence Force Orders \(Navy\)](#)
 - H. [NZBR 1 - RNZN Administration Manual](#)
 - I. [NZBR 862 - RNZN Magazine and Explosives Regulations](#)
 - J. [NZAP 6085.001-2 Manual of Air Movements, Preparation of Dangerous Goods for Military Air Shipment](#)
 - K. [Land Transport Rule, Dangerous Goods 2005](#)
 - L. [NZS 5433.1 Transport of Dangerous Goods on Land](#)
 - M. [JSP 482 UK Ministry of Defence Explosives Regulations](#)
 - N. [NATO AASTP Series](#)
 - O. [Civil Aviation Rule, Part 92](#)
 - P. [Health and Safety at Work Act 2015](#)
 - Q. [Health and Safety at Work \(Hazardous Substances\) Regulations 2017](#)
 - R. [Health and Safety at Work \(Asbestos\) Regulations 2016](#)
 - S. [Hazardous Substances and New Organisms Act 1996](#)
 - T. [Building Act 2004 and supporting Regulations](#)
 - U. [Electricity Act 1992](#)

- V. [Electricity \(Safety\) Regulations 2010](#)
- W. [Gas Act 1992](#)
- X. [Resource Management Act 1991](#)
- Y. [Radiation Safety Act 2016](#)
- Z. [Radiation Safety Regulations 2016](#)
- AA. [Imports and Exports \(Asbestos-containing Products\) Prohibition Order 2016](#)
- AB. [Health and Safety at Work \(Major Hazard Facilities\) Regulations 2016](#)
- AC. [NZDF/Worksafe Memorandum of Understanding](#)
- AD. [UNECE Recommendations on the Transport of Dangerous Goods - Model Regulations](#)
- AE. [Health and Safety at Work \(General Risk at Workplace Management\) Regulations 2016](#)

Meanings of Terms**Glossary**

Meanings of terms used in this publication and not explained elsewhere are—

Term	Definitions
accountability	A relationship that exists between two people or groups of people, the person held accountable and the person to whom they are accountable. Accountability exists where— an outcome is defined; and responsibility is clear; and appropriate authority is granted.
acutely toxic	Adverse effects occurring following oral or dermal administration of a single dose of a substance, or multiple doses given within 24 hours, or an inhalation exposure of 4 hours.
commander	A commander is a member of the Armed Forces who holds non-commissioned officer or officer rank and who is in charge of, or responsible for, a military activity or any other part of the Armed Forces.
competency	A combination of training, qualifications, and experience required to perform a task to a particular standard.
competent person	A person who, through a combination of training, qualifications and experience, has acquired appropriate and adequate knowledge and skills enabling that person to correctly perform a specified task to a particular standard.
compliance licence	A compliance licence is a formal record issued by a Compliance Officer that verifies that the location or system meets the standards specified in this order. A compliance licence is known as a compliance licence in the Health and Safety at Work Act 2015 and its supporting Regulations. This term is used in the supporting publications: NZDP 4.2.2 and NZDP 4.2.3 .
Compliance Officer	A Compliance Officer verifies that the location or system meets the standards specified in this order. A Compliance Officer is defined in the Health and Safety at Work Act 2015 and its supporting Regulations. This term is used in the supporting publications: NZDP 4.2.2 and NZDP 4.2.3 .
conditional location compliance licence	A compliance licence which may be issued for a location with identified deficiencies which are minor, not safety critical and can be mitigated in such a way to prevent or limit the occurrence of a notifiable incident or event and otherwise complies with this order. A conditional compliance licence is to be time bound and issued on the conditions that the full requirements for licence are achieved within the time frame specified on the certificate.
consultation	Sharing information with employees, about any matter an employer is required to consult, and— Giving employees a reasonable opportunity to express their views about the matter. Taking into account the views of employees.

Term	Definitions
contractor	Any company, firm, organisation or person, other than a member of NZDF, that carries out work for, or provides goods and services to NZDF, under a contractual agreement between NZDF and the company, firm, organisation or person, or the person's employer.
control	A measure (including, but not limited to, any process, policy, device, practice or other action) that is put in place to eliminate or minimise risk.
defence area	Has the meaning as defined in the Defence Act 1990.
duty	For the purpose of this order, duty is what an individual is required to do under the Health and Safety at Work Act 2015 and its supporting Regulations, and other legislation. It is different to 'duty' when defined as a task or activity.
emergency response plan	A document that outlines the response to an emergency event at a specific location.
emergency situation	Refer to DFO 10 .
environment (work)	Refer to DFO 10 .
facility operator	The facility operator is the principal position in charge of a hazardous substances facility and which routinely employs personnel to operate the facility, or where the facility is unmanned, is the primary position responsible for ensuring that the facility is certified, safe and under control.
hazard	Refer to DFO 10 .
incident	Refer to DFO 10 .
location compliance licence	A compliance licence is a formal record issued by a Compliance Officer that verifies that the location meets or systems within a location meet the compliance standards specified in this order and its associated hazardous substances publications
major hazard facility	A facility or proposed facility where specified hazardous substances are present or likely to be present in a quantity that equals or exceeds the thresholds specified in the Health and Safety at Work (Major Hazard Facilities) Regulations 2016.
manager	A member of the Civil Staff as defined in the Defence Act 1990 and with the equivalent responsibilities of a commander.
near miss	Refer to DFO 10 .
notifiable event	Has the meaning as defined in the Health and Safety at Work Act 2015, and includes any event that arises from work including the death of a person, a notifiable injury or illness or a notifiable incident.
notifiable incident	Has the meaning as defined in the Health and Safety at Work Act 2015, and includes any event or chain of events that has or could have caused injury or illness and/or damage (loss) to people, assets, the environment or reputation.
notifiable injury or illness	Has the meaning as defined in the Health and Safety at Work Act 2015, and includes an injury or illness that requires the person to be admitted to hospital for immediate treatment.
officer in charge of a defence area	The officer commanding the area or— if there is no officer commanding the area, the officer commanding the major unit occupying the area; or any other person declared by the Chief of Defence Force to be the officer in charge.
officer in charge of an activity	The senior person responsible for an NZDF activity undertaken in an NZDF area.
operational activity	As defined in s 7 of the Health and Safety at Work Act 2015 .

Term	Definitions
other persons at the workplace	Refer to DFO 10 .
permit to work	A permit to work is a document which specifies the work to be done and the precautions to be taken and forms an essential part of safe system of work.
person conducting a business or undertaking (PCBU)	Whether alone or with others, for profit or not, the PCBU is the main duty holder under the Health and Safety at Work Act 2015.
plant	Under the Health and Safety at Work Act 2015, includes— any machinery, vehicle, vessel, aircraft, equipment (including personal protective equipment), appliance, container, implement or tool; and any component of any of those things; anything fitted or connected to any of those things.
reasonably practicable	Refer to DFO 10 .
risk	Refer to DFO 10 .
risk assessment	Refer to DFO 10 .
safe	Refer to DFO 10 .
safety critical element	Any part of a hazardous substances facility or its plant, including computer systems, that has the purpose of preventing or limiting the effect of a notifiable incident or event from arising.
safety data sheet	Designed to protect the health and safety of persons in the workplace by providing information on the hazards of substances and how they are to be used, stored, transported and disposed.
safety event	Refer to DFO 10 .
safety investigation	Refer to DFO 10 .
significant hazard facility	A facility that does not meet the thresholds stipulated for a major hazard facility but is classified by the NZDF Hazardous Substances Authority to be highly hazardous where, in the event of a safety critical element of the facility or plant failing, the consequences are likely to result in a notifiable incident or event or would significantly impact on NZDF's ability to conduct operations.
site manager	Has control of the day to day activities within a hazardous substances facility and is responsible to the facility operator.
subcontractor	Refer to DFO 10 .
temporary hazard facility	A facility or plant that is temporarily established or that is mobile in nature used to store, process or transport hazardous substances. While the quantities of hazardous substances contained within the plant may not under the Regulations trigger requirements for compliance licence, the Hazardous Substance Regulatory Authority may direct that licence be undertaken given that any failing is likely to result in a notifiable incident or event or would negatively impact on NZDF's ability to conduct operations.
visitor	Refer to DFO 10 .
wet charter	The organisation that owns the vessel will provide it as well as on or more crew members to the lessee.
worker	Refer to DFO 10 .
workplace	Refer to DFO 10 .

Abbreviations, Acronyms and Designations

The listed abbreviations are used throughout this document except where context requires the term be written in full. Special/technical abbreviations in the body text and the enclosures are used after the first instance.

Abbreviation	Definition
AASTP	Allied Ammunition, Storage and Transport Publication
DFO	Defence Force Order(s)—issued pursuant to s 27 of the Defence Act 1990
DLC	Defence Logistics Command
HSNO*	Hazardous Substances and New Organisms (Form * number)
JFNZ	Joint Forces New Zealand
JSP	Joint Service Publication
NATO	North Atlantic Treaty Organization
NZAP	New Zealand Air Publication—issued pursuant to delegations from the Chief of Air Force
NZ Army	New Zealand Army—constituted under s 11(4) of the Defence Act 1990
NZBR	New Zealand Book of Reference—issued pursuant to delegations from the Chief of Navy
NZDF	New Zealand Defence Force—constituted pursuant to s 11(1) of the Defence Act 1990
NZDP	New Zealand Defence Publication(s)—issued pursuant to delegations from the Chief of Defence Force
NZQA	New Zealand Qualifications Authority
NZS	New Zealand Standard
PCBU	person conducting a business or undertaking as defined in s 17 of the Health and Safety at Work Act 2015
RNZAF	Royal New Zealand Air Force—constituted under s 11(5) of the Defence Act 1990
RNZN	Royal New Zealand Navy—constituted under s 11(3) of the Defence Act 1990
SAP	Systems, Applications and Products (German IT Company)
UN	United Nations

Chapter 1 - NZDF Hazardous Substances

Section 1 - Introduction

1.1. Introductory provisions

- a. The [Health and Safety at Work \(Hazardous Substances\) Regulations 2017](#) sets out the requirements of a person conducting a business or undertaking to protect the health and safety of people and the environment from the adverse effects of hazardous substances.
- b. These Regulations do not apply to hazardous substances under the control of the NZDF, where the Chief of Defence Force has issued a Defence Force Order dealing with the management of hazardous substances. This is that order.
- c. Commander Logistics is authorised to give effect to this order by issuing hazardous substances publications detailing further controls and guidance for the safe management of hazardous substances. All hazardous substances publications issued by the Commander Logistics for the safe management of hazardous substances are to reflect good practice. All members of the NZDF are to comply with hazardous substances publications issued by Commander Logistics.
- d. Chiefs of Service are authorised, pursuant to s 27(2) of the [Defence Act 1990](#), to issue orders for hazardous substances not inconsistent with this order and the hazardous substances publications issued by the Commander Logistics, to ensure the accountabilities, responsibilities and mechanisms for compliance imposed by this order are implemented within their Service.

1.2. Key Policies

- a. NZDF's key policies for the safe management of hazardous substances and hazard facilities are as follows—
 - (1) Where possible and it is practical to do so, hazardous substances are to be substituted for those that are non-hazardous or less hazardous.
 - (2) Where hazardous substances are required, only the minimal quantities of hazardous substances required to meet NZDF outputs are to be held.
 - (3) All hazardous substances held are to be codified, labelled, tracked and managed as an NZDF inventory item.
 - (4) All the necessary information, including safety data sheets and controls, relating to the hazardous substances located in a workplace are to be available to all personnel in that workplace.
 - (5) All hazardous substances are to be stored in facilities that are appropriately licenced and safely operated. Personnel required to manage, store, handle or use hazardous substances are to be trained and equipped to do so.
 - (6) Emergency management plans are to be put in place and practiced wherever hazardous substances that exceed minimum thresholds are held.

Section 2 - Definition and Classification

1.3. Hazardous substances

a. The NZDF adopts standard conventions for the definition and classification of hazardous substances. Hazardous substance means, unless expressly provided otherwise by the [Health and Safety at Work \(Hazardous Substances\) Regulations 2017](#), any substance with one or more of the following intrinsic properties—

- (1) Explosiveness;
- (2) Flammability;
- (3) A capacity to oxidise;
- (4) Toxicity (including chronic toxicity);
- (5) Corrosiveness;
- (6) Eco toxicity, with or without bioaccumulation;
- (7) On contact with air or water (other than air or water where the temperature or pressure has been artificially increased or decreased) generates a substance with any one or more of the properties specified in [NZDP 4.2.3 Hazardous Substances: Class 2–9](#).

b. **Class.** Hazardous substances are divided into class 1–9 as follows—

- (1) **Class 1** covers all explosives. The NZDF procedures to be applied to the management of these substances are specified in [NZDP 4.2.2 Hazardous Substances: Class 1 Ammunition and Explosives](#).
- (2) **Class 2–9** covers—
 - (a) **Class 2 – flammable gases:** (subclass: 2.1.1 – gases, 2.1.2 – aerosols);
 - (b) **Class 3 – flammable liquids:** (subclass: 3.1 – liquids, 3.2 – liquid desensitised explosives);
 - (c) **Class 4 – flammable solids:** (subclass: 4.1.1 – readily combustible, 4.1.2 – self-reactive, 4.1.3 – solid desensitised explosives, 4.2 – spontaneously combustible, 4.3 – dangerous when wet);
 - (d) **Class 5 – oxidisers:** (subclass: 5.1.1 – liquids/solids, 5.1.2 – gases, 5.2 – organic peroxides);
 - (e) **Class 6 – toxics:** (subclass: 6.1 – acute toxic, 6.3 – skin irritant, 6.4 – eye irritant, 6.5 – sensitisation, 6.6 – mutagen, 6.7 – carcinogen, 6.8 – reproductive/developmental, 6.9 – organ affecting);
 - (f) **Class 7 – radiation;**
 - (g) **Class 8 – corrosives:** (subclass: 8.1 – metal, 8.2 – skin, 8.3 – eye); and
 - (h) **Class 9 – ecotoxics:** (subclass: 9.1 – aquatic, 9.2 – soil, 9.3 – vertebrate, 9.4 – invertebrate).
- (3) [Enclosure A](#) summarises the nine classes.

Note: Class 7 substances are radioactive. These substances are controlled by the Radiation Safety Act 2016 and Regulations for which the NZDF has no exemption.

- c. The NZDF procedures to be applied to the management of class 2–9 hazardous substances are specified in [NZDP 4.2.3](#).
- d. **Subclass.** Each class of hazardous substance has several subclasses, e.g. 2.1.2 – aerosol, 3.1 – flammable liquid, 3.2 – liquid desensitised explosive, 4.1.1 – readily combustible solid that indicate differing properties within each class.
- e. **Categories.** Each subclass is divided into one or more categories that are designated alphabetically depicting the degree of hazard, e.g. 2.1.2A, 2.1.2B, 3.1A, 3.1B and 3.1C. The category indicates the reactivity of the substance, with ‘A’ being the most reactive, and therefore the most hazardous. Hazard classification descriptions are detailed at [Enclosure A](#).
- f. There are 112 different hazard classification codes, each indicating the type and degree of hazardous property. A substance can have one or more classification codes depending on its hazardous properties; for example, methylated spirits is classified as 3.1B, 6.1D, 6.3B, 6.4A, 6.8A and 6.9A. Physical hazard classification property tables are detailed at [Enclosure B](#).

1.4. NZDF hazard facilities

- a. An NZDF hazard facility is one where quantities of hazardous substances are present or likely to be present, or which trigger the requirements for a location compliance licence.
- b. NZDF hazard facilities are categorised as major, significant, minor and temporary hazard facilities. These are listed in the [NZDF Hazard Facility Location Register](#).

Section 3 - Hazardous Substance Safety Management System

1.5. Safety Management System

- a. The NZDF Hazardous Substances Safety Management System specifies how the NZDF’s meets its obligations specified by the Hazardous Substances and New Organisms Act 1996, the Health and Safety at Work (Hazardous Substances) Regulations 2017, the Health and Safety at Work (Major Hazard Facilities) Regulations 2016 and the Health and Safety at Work Act 2015. The system provides for the following—
 - (1) **Regulatory responsibilities.** This order specifies the roles and responsibilities required to independently maintain the NZDF hazardous substance regulatory system, the instruments to be used to record licensing and personnel competency and the regulatory interventions able to be applied to enforce compliance where it is deemed necessary.
 - (2) **Duty holders.** The system relies upon duty holders to actively apply the necessary controls to manage safety in workplaces where hazardous substances are stored or where hazard facilities are operating. This includes specific responsibilities relating to commanders and managers, operators of hazard facilities, Approved Handlers and workers.
 - (3) **Trained and competent personnel.** The system requires that there is a sufficient pool of trained and competent personnel in the workplace to provide active oversight of activities where hazardous substances are stored, processed, used or transported.

- (4) **Controls.** Hazardous substances in the NZDF are regulated based on the risks they pose and the preventative controls to be adopted to minimise the risk as far as reasonably practicable.
- (5) **Emergency planning, workplace interventions and reporting.** The regulatory framework enables duty holders and any other persons to initiate safety interventions where required and to ensure that duty holders are able to manage incidents by planning for emergencies.
- (6) **Review and audit.** The regulatory framework requires reviews and audits to be undertaken to ensure compliance and suitability of the Hazardous substances Safety Management System specified in this order and its supporting publications.

Chapter 2 - Regulatory Responsibilities and Instruments

Section 1 - Regulatory Responsibilities

2.1. NZDF Hazardous Substances Regulatory Authority

- a. Commander Logistics is appointed the Hazardous Substance Regulatory Authority, and is accountable to Chief Joint Defence Services for—
- (1) setting and approving the NZDF regulatory standards and controls for the safe management of hazardous substances and hazardous substances facilities; and
 - (2) setting and approving the NZDF hazardous substance compliance licence system; and
 - (3) sponsoring NZDF hazardous substances training requirements; and
 - (4) enforcing compliance; and
 - (5) co-chairing with officers in charge of defence areas, Hazardous Substances Facility Review Boards; and
 - (6) monitoring and reviewing NZDF's compliance with this order.

2.2. Hazardous Substance Assurance Officer

- a. The Hazardous Substance Assurance Officer is accountable to the Hazardous Substance Regulatory Authority, and is responsible for—
- (1) defining, developing and maintaining NZDF's hazardous substance and hazardous substances facilities controls; and
 - (2) oversight of the implementation of NZDF's compliance licence system; and
 - (3) ensuring that an adequate pool of NZDF Compliance Officers and Approved Handlers is maintained; and
 - (4) ensuring that NZDF Compliance Officer and approved handler training is delivered to an appropriate standard; and
 - (5) maintaining a register of NZDF Compliance Officers and Approved Handlers; and
 - (6) providing technical oversight and support to NZDF Compliance Officers and hazard facilities operators and site managers; and
 - (7) preparing the annual NZDF Internal Assessment Report; and
 - (8) arranging, in consultation with Internal Audit, independent reviews of NZDF's hazardous substances standards, controls and compliance;
 - (9) the operation of the NZDF Hazardous Substances Safety Committee, Explosives Safety Committee and Hazard Facility Review Boards; and
 - (10) the preparation and issuance of Hazardous Substance Provisional Improvement and Prohibition Notices; and
 - (11) the investigation and oversight, when required, of hazardous substance incidents; and
 - (12) revision of this order and hazardous substances publications; and
 - (13) managing NZDF's hazardous substances regulatory interface with WorkSafe.

2.3. Qualification approval authorities

- a. Persons holding the positions specified in paragraph [2.4.b.](#) are responsible to the Hazardous Substance Regulatory Authority for certifying NZDF personnel who have demonstrated the competency to be NZDF Compliance Officers and Approved Handlers.
- b. Members of the NZDF who are authorised as NZDF Compliance Officer Approval Authorities are specified at the [NZDF Hazardous Substances Assurance Office website](#).

2.4. Compliance Officers

- a. NZDF Compliance Officers are responsible to the Hazardous Substance Regulatory Authority for—
 - (1) fulfilling the compliance licence duties specified in this order including those specified at [Enclosure C](#);
 - (2) providing advice to duty holders, workers and other persons in the workplace on the safe storage, processing, use and transport of hazardous substances;
 - (3) issuing Provisional Improvement Notices ([Enclosure D](#)) where there are matters of non-compliance and/or safety; and
 - (4) reporting to the Hazardous Substance Assurance Officer any significant matters of non-compliance and/or safety.
- b. Members of the NZDF who are authorised as NZDF Compliance Officers are specified at the [NZDF Hazardous Substances Assurance Office website](#).

2.5. Prime delegates

- a. Prime delegates are the health and safety representatives with hazardous substances responsibilities appointed by Chiefs of Service and portfolio heads and are responsible to the Hazardous Substance Regulatory Authority for—
 - (1) reviewing and updating the register of compliance licences on the NZDF HSAO Intranet site issued for facilities and other sites in the defence area for which they are responsible;
 - (2) working with duty holders to ensure compliance licence requirements are being managed;
 - (3) ensuring that duty holders maintain an adequate number of approved handlers for each workplace where hazardous substances are present;
 - (4) reporting to the Hazardous Substance Assurance Officer any incidents involving hazardous substances or hazardous substances facilities;
 - (5) ensuring that annual internal assessments are completed and provided in accordance with the requirements of this order;
 - (6) issuing Provisional Improvement Notices ([Enclosure D](#)) and assist duty holders with achieving compliance requirements specified in the notice; and
 - (7) making submissions to the Hazardous Substance Regulatory Authority for the issuance of Prohibition Notices—
 - (a) in cases of non-compliance matters that have not been resolved; or

- (b) in situations where a workplace is defective or hazardous to a degree that is likely to imminently cause death, serious injury, illness or a notifiable incident.

- b. Members of the NZDF who are authorised as prime delegates are specified at the [NZDF Hazardous Substances Assurance Office website](#).

2.6. Hazardous Substances Safety Committees

- a. The NZDF Explosives (Class 1) Safety Committee and the Hazardous Substances (Class 2–9) Safety Committees are subject matter experts appointed by Hazardous Substance Assurance Officer who meet to review and provide advice on the effectiveness of the NZDF Hazardous Substances Safety Management System. The committees are to meet at least six-monthly. The terms of reference for the NZDF Explosives (Class 1) Safety Committee is detailed at [Enclosure E](#) and the Hazardous Substances (Class 2–9) Safety Committee is detailed at [Enclosure F](#).

Section 2 - Regulatory Instruments

2.7. Compliance Officer certificate of competency

- a. A Compliance Officer certificate of competency formally records that a member of the NZDF is authorised under this order to issue a compliance licence for specific classes of hazardous substances and locations. A Compliance Officer certificate of competency is valid for five years and maybe revalidated by the Hazardous Substance Assurance Officer.
- b. **Revocation or suspension.** A Compliance Officer may have their certificate of competency revoked or suspended by a qualification approval authority if the certifier is no longer fulfilling the role or for any reason that they are no longer considered competent to undertake the duties required.

2.8. Approved Handler certificate of competency

- a. An Approved Handler certificate of competency formally records that a member of the NZDF is authorised under this order to handle the class or classes of hazardous substances specified on the certificate within a workplace. An Approved Handler certificate of competency is valid for five years and maybe recertified if required in accordance with procedures specified by the Hazardous Substance Assurance Officer.
- b. The register of NZDF Approved Handlers is available [NZDF Hazardous Substances Assurance Office website](#).
- c. **Competency requirements.** Qualification as an NZDF Approved Handler requires successful completion of the required training (refer to paragraph [4.3.](#)). This includes, but is not restricted to, being able to demonstrate the following—
 - (1) Hazardous substances classification system.
 - (2) Interpretation of Safety Data Sheets.
 - (3) Information contained on the NZDF Hazardous Substances Management Cards.
 - (4) Management and user safety controls.
 - (5) Assessment of collections for hazardous substances.
 - (6) Compatibility.

- (7) Licensing.
 - (8) Facility requirements.
 - (9) Marking and labelling.
 - (10) Signage.
 - (11) How to obtain information from the [NZDF Hazardous Substances Assurance Office website](#).
- d. **Revocation or suspension.** An Approved Handler may have their certificate of competency revoked or suspended by a qualification approval authority if the Approved Handler is no longer fulfilling the role or for any reason they are no longer considered competent to undertake the duties required.

2.9. Compliance licences

- a. **Types.** A compliance licence is a formal record issued by a Compliance Officer that verifies that the location or systems within a location meet the compliance standards specified in this order and its associated hazardous substances publications.
- b. NZDF Compliance Licences take the form of—
- (1) **Location compliance licence.** These certify that upon the date the certificate is issued, the location, its subsystems and the personnel who operate it met the requirements specified in this order.
 - (2) **Stationary container system compliance licence.** These certify that upon the date the certificate was issued, fixed tanks and or process tanks (including any pipework and associated fittings) that meet the threshold specified in the [NZDP 4.2.2](#) and [NZDP 4.2.3](#), met the compliance requirements.
- c. Issuing authorities—
- (1) **Location compliance licences.** NZDF Compliance Officers are authorised to issue location compliance licences (subject to them having the requisite qualification, knowledge, skills and experience to do so) if they meet the requirements for independence as specified at [Enclosure C](#).
 - (2) NZDF Compliance Officers, other than for class 3.1D hazardous substances, are not authorised to issue stationary container system licences.
 - (3) **Stationary container system compliance licences.** Stationary container, and any other compliance licences required by the NZDF may only be issued by a WorkSafe approved Industry Compliance Certifier who is a subject matter expert in the hazards to be inspected and certified. (Refer to [NZDP 4.2.3](#), Chapter 18.)
- Note:** When an Industry Compliance Certifier is required, the inspection and certificate process is to be supervised by NZDF Compliance Officer to ensure the inspection and licence process covers all matters within scope that any remediation matters are recorded for action and that licence documentation is registered on the NZDF compliance licence register and rendered safe.
- d. Duration—
- (1) Location compliance licences may be issued for a maximum period of three years.

- (2) Stationary container system compliance licences are issued for a period deemed appropriate by the Industry Compliance Certifier after giving consideration to aspects such as the age and structural integrity of the system being certified.
 - (3) Temporary hazardous substances facilities (such as deployable bulk fuel installations) that are issued with a location compliance licence are only to be issued a licence for the duration of the deployment. This is to be annotated on the compliance licence. (Refer to [NZDP 4.2.3](#), Chapter 18.)
- e. **Display.** The site manager for the location, plant or equipment that has been certified is to ensure that a copy of the compliance licence is to be reasonably protected (e.g. laminated) and displayed in a conspicuous place. This is normally to be at the main entrance to the facility, plant or equipment.
 - f. Location compliance licences for open areas are to be displayed on nearby walls where practical, or if impractical, are to be placed in the unit Health and Safety Register and brought to peoples' attention.
 - g. **Revocation or suspension.** Revocation or suspension of a compliance licence may be undertaken on the authority of the Hazardous Substance Regulatory Authority where—
 - (1) the levels of non-compliance are safety critical and give rise to the increased probability of a notifiable event arising;
 - (2) there has been a significant change to plant or buildings or where the hazardous substances being held breach the limits specified on the compliance licence; or
 - (3) the facility or plant is no longer required and contains no hazardous substances.

Note: Any facility, plant or equipment no longer required to store, process or use hazardous substances must have any residual hazardous substances removed and transferred to another authorised storage location, or disposed of in accordance with [NZDP 4.2.2](#) and [NZDP 4.2.3](#), and have hazardous substances hazard signage removed.

2.10. Conditional location compliance licence

- a. A conditional location compliance licence may be issued to a hazardous substances facility at the time of licence if the NZDF Compliance Officer considers that there is a failure to meet any relevant requirements of this order subject to the non-compliance being minor, not safety critical and able to be mitigated in such a way that will prevent or limit the occurrence of a notifiable incident or event arising.
- b. Conditional location compliance licences when issued are to be time bound and of a period that is reasonably practicable to allow any non-compliant matters to be rectified.

Section 3 - Safety Interventions

2.11. Intervention notices

- a. Safety interventions may be initiated where non-compliance with this order or any associated hazardous substances publication is identified and not been sufficiently addressed by duty holders. The intervention requirements are to be formally recorded in either an NZDF Hazardous Substances Provisional Improvement Notice or a Prohibition Notice.

- b. The model for determining which notice is to be issued is based on the risk assessment process detailed in [DFO 081](#). Assessing the risk is to be undertaken against defined (objective) and interpretative (subjective) standards.
- c. **NZDF Hazardous Substances Provisional Improvement Notices.** A Hazardous Substance Provisional Improvement Notice ([Enclosure D](#)) is issued by the Hazardous Substance Assurance Officer or by a prime delegate and formally notifies affected duty holders of a critical risk (refer to [DFO 081](#)) and the actions to be undertaken to address safety requirements and achieve compliance with this order.
- d. Hazardous Substance Provisional Improvement Notices ([Enclosure D](#)) are to be time bound and the period specified to achieve compliance is to be reasonably practicable to allow any deficiencies to be rectified. The Hazardous Substance Provisional Improvement Notice should normally provide no more than 21 days notice to complete the improvements. The timeline is to be determined in consultation with the affected duty holders. Where maintenance action is required, the Maintenance Authority is to be consulted to establish the scope of work to be undertaken and when it can be undertaken.
- e. **Hazardous Substance Prohibition Notices.** Issued for risks that are classified as 'medium to high'. Prohibition notices are to—
 - (1) take the form of a Chief of Defence Force Directive; and
 - (2) be displayed by the duty holder at the specified location so that workers and visitors are aware of the hazards and risks; and
 - (3) be acted upon by the positions specified in the notice.
- f. Hazardous Substance Prohibition Notices require immediate, partial or total pause of an activity until such time as the risks have been addressed 'so far as reasonably practicable'¹. Hazardous Substance Prohibition Notices may only be issued by Chief of Defence Force and will normally be issued in the form of a Chief of Defence Force directive.
- g. Application to issue a Hazardous Substance Prohibition Notice is to be made by the Hazardous Substance Regulatory Authority in consultation with affected duty holders and maintenance authority where applicable. Subject to Chief of Defence Force approval, the Hazardous Substance Prohibition Notice is to be displayed by the duty holder at the specified location so that workers and visitors are aware of the prohibition.

2.12. External agencies enforcement notifications

- a. WorkSafe may exercise enforcement powers against NZDF as a PCBU, and against members of the Civil Staff and contractors engaged by NZDF for failure to comply with this DFO. This would include power to issue improvement and prohibition notices under the Health and Safety at Work Act 2015. Separately, territorial authorities under the Resource Management Act 1991 may exercise enforcement powers for breaches of this Resource Management Act or relevant rules in a regional plan, for example, discharge of contaminants to the environment.
- b. In both situations NZDF may be prosecuted under the Crown Organisations (Criminal Liability) Act 2002 for breaches of the Health and Safety at Work Act or the Resource Management Act.

1. The term 'reasonably practicable' has the same meaning as that specified in s 22 of the [Health and Safety at Work Act 2015](#).

Chapter 3 - Duty Holders

Section 1 - General Responsibilities

3.1. Introduction – Duty holders

- a. [DFO 10 Defence Force Orders for Safety](#), Chapter 2 specifies the roles and responsibilities for maintaining a safe work place within the NZDF. This chapter expands upon those requirements by detailing the responsibilities that must be fulfilled by duty holders to ensure that that management of hazardous substances and the facilities in which they are held remain safe and in control.

3.2. Commanders and managers

- a. Where hazardous substances are present in the workplace, commanders and managers are responsible to their respective Chief of Service or Head of Portfolio (in addition to responsibilities detailed in [DFO 10](#)) for ensuring that—
- (1) the quantities of hazardous substances held are kept to a minimum and in accordance with principles detailed at Chapter 1, Section 1 - Introduction of this order, paragraph [1.2.a.\(2\)](#) in particular;
 - (2) workers and other persons at the workplace are made aware of the nature and risks of any hazardous substances that are present including separation distances and incompatibility requirements for each class of hazardous substance;
 - (3) where there is a hazardous substances facility under their control, those personnel working in the facility are trained, competent, supervised and kept informed of all matters with respect to their role;
 - (4) there is an NZDF Approved Handler at the workplace or readily available to assist and guide commanders, managers, workers and other persons at the workplace, in the safe use and handling of the hazardous substances that are present;
 - (5) a register of hazardous substances is maintained, recorded on form HSNO [6a](#) or [6b](#) *Assessment of Collections for Hazardous Substances* and is to be readily available in the workplace;
 - (6) Safety Data Sheets for those hazardous substances being used in the workplace are accurate and available for immediate reference, and are less than five years old;
 - (7) personal protective equipment, first aid, and emergency response equipment is available and in sufficient quantity in the workplace, and appropriate to address the hazardous substances present;
 - (8) any licence and safety publications relevant to the workplace are current and compliance requirements are being met and maintained;
 - (9) immediate interventions are undertaken where unsafe practices, facilities or equipment involving hazardous substances are identified; and
 - (10) notification of incidents and near misses involving hazardous substances are reported on the NZDF safety event management system in accordance with [DFO 10](#) and where required, notified to civilian authorities as specified by s 23–s 25 [Health and Safety at Work Act 2015](#).

3.3. Approved handlers

- a. All workplaces where hazardous substances are stored or used in quantities that equal or exceed the trigger requirements for an Approved Handler as determined in form HSNO [6a](#) or [6b](#) are to have sufficient Approved Handlers available to cover all contingencies e.g. shift work, deployments, leave etc.
- b. **Duties.** Approved handlers are responsible to their commander or manager and are to—
- (1) ensure that hazardous substances present in the workplace are correctly classified and have safety data sheets readily available, that the correct controls are in place and persons handling the substances are following the controls; and
 - (2) ensure that the Assessment of Collections form for the workplace where hazardous substances are present is accurate and up-to-date; and
 - (3) be available at all times to provide guidance and to supervise persons handling any hazardous substance in excess of handler trigger quantities as specified in the Assessment of Collections form; and

Note: Being 'available' in some instances means being present at the location, on other occasions, being contactable by telephone or other means will suffice. Approved handlers must be physically present in the workplace when [acutely toxic](#) substances (6.1 A, B and C) are being handled.

Note: Hazardous substances that equal or exceed trigger quantities may be handled by a non-NZDF Approved Handler providing an NZDF Approved Handler—

- a. has briefed the person(s) on handling the substance safely, and
 - b. is directly available at the site to provide assistance if necessary.
- (4) conduct an annual internal assessment on hazardous substances presents in the workplace in accordance with paragraph [8.1](#). and provide the report to the unit commander or manager for processing by the respective prime delegate; and
 - (5) intervene on matters of non-compliance and make recommendation to unit commanders and managers to address shortfalls that may have led to the non-compliance.

3.4. Workers and other persons in the workplace

- a. Workers and other persons in the workplace who store, process, use or transport hazardous substances and or undertake maintenance of or any other duty associated with hazardous substances in the workplace, are to comply with the responsibilities specified in DFO 10 and the additional controls specified in this order.

*Section 2 - Responsibilities for the Operation and Control of NZDF Hazard Facilities***3.5. Introduction**

- a. Where hazardous substances facilities are present within a defence area or in an area under NZDF control in a deployed environment, there will be overlapping responsibilities between those that operate and manage the facility and those that maintain the facility.
- b. The requirements for managing overlapping responsibilities are specified in [DFO 10](#). Further to the requirements of [DFO 10](#), this order details those duties that are to be undertaken by those who have accountabilities and responsibilities for hazard facilities.

3.6. Hazard facility operator

- a. Each hazard facility is to have a position designated through the chains of command as the facility operator.
- b. The facility operator is the principal position in charge of a hazardous substances facility and that routinely employs personnel to operate the facility, or where the facility is unmanned, is the primary position responsible for ensuring that the facility is certified, safe and under control.

Note: Should the operation of any NZDF facilities be commercialised, the same principles apply. The NZDF sponsor of the contract and the contractor operating the facility jointly share the responsibility as the facility operator.

- c. The facility operator is responsible to their commander or manager for ensuring that—
 - (1) a site manager is appointed and is to ensure that the manager is trained, supervised and kept informed of all matters with respect to their role; and
 - (2) all activities undertaken within the facility comply with this order; and
 - (3) workers are—
 - (a) appropriately trained and competent to operate and control the facility; and
 - (b) provided with regular opportunity to participate in the management of safety matters relevant to the facility; and.
 - (4) a formal risk assessment is prepared in consultation with workers and is routinely updated; or
 - (5) where a safety case and/or licence are required, these are to be maintained and kept current; and
 - (6) that emergency plans are developed, practiced and maintained in accordance with requirements specified in this order (refer to [Enclosure G](#) and [Enclosure H](#)); and
 - (7) immediate actions are taken to reduce risk or stop work where there are failures in safety critical elements of the facility; and
 - (8) appropriate reporting action is taken in accordance with [DFO 10](#).
- d. The positions that are designated as facility operators are specified in the [NZDF Hazardous Substances Assurance Office website](#).

3.7. Hazardous substances facility site managers

- a. Each hazardous substances facility is to have a position designated by the facility operator as the site manager.
- b. The site manager is the position that controls the day-to-day activities that occur within the hazardous substances facility.
- c. The site manager is responsible to the facility operator for ensuring that—
 - (1) standard operating procedures for activities being undertaken within the facility, location or with the equipment are issued and maintained; and
 - (2) a register of hazardous substances ([HSNO 6a Assessment of Collections](#)) stored, processed, used or transported at the facility is prepared and maintained; and

- (3) only workers with appropriate training and competence are permitted to undertake work within the facility; or
 - (4) that any other person who is not a worker and who is granted entry to the facility is supervised at all times; or
 - (5) any person working in the facility or location is informed about the hazardous substances stored, processed, used, transported, handled or generated at the facility and the emergency response actions to be taken in the event of an incident; and
 - (6) emergency plans are kept current and tested annually, and with any corrective actions being recorded and implemented; and
 - (7) facility maintenance requirements are undertaken to the quality standards and frequency required to maintain the safety and licence status of the facility; and
 - (8) facility maintenance activities are supervised and undertaken in accordance with the required [permit to work](#); and
 - (9) immediate actions are taken to mitigate risk or stop work where there is failure in/of a safety critical element within the facility; and
 - (10) the facility operator is advised of any notifiable incidents or events, including near misses that, in different circumstances, could have led to a notifiable incident; and
 - (11) any matters making the facility non-compliant or unsafe, or where personnel are exposed to hazardous substances, are reported to the facility operator at the earliest opportunity.
- d. The positions that are designated as site managers are specified at [Hazardous Substances Facility Location Register website](#).

3.8. Hazard Facility Maintenance Authority

- a. The hazard facility maintenance authorities are those positions designated by the General Manager Estate Performance for arranging, monitoring and undertaking maintenance of each hazardous substances facility.
- b. The Hazard Facility Maintenance Authority is to ensure that—
 - (1) design baselines (including systems software and firmware), change approvals and configuration control of each hazardous substances facility is maintained; and
 - (2) preventative maintenance plans for each hazardous substances facility are established and acted upon; and
 - (3) preventative and routine maintenance of hazardous substances facilities and new works complies with relevant legislation, codes of practices and standards including but not limited to the following—
 - (a) DFO 41 *Safe Management of Hazardous Substances*;
 - (b) Health and Safety at Work Act 2015;
 - (c) Hazardous Substances and New Organisms Act 1996;
 - (d) Building Act 2004 and supporting Regulations;
 - (e) Electricity Act 1992;

- (f) Electricity (Safety) Regulations 2010;
 - (g) Gas Act 1992; and
 - (h) Resource Management Act 1991.
- (4) where maintenance work is contracted out, the contractor's personnel must be qualified and experienced in working in hazardous substances environments or hazardous atmosphere zones requiring servicing and maintenance, or be supervised by an Approved Handler.
- (5) that all work undertaken by contractors that requires a [permit to work](#) e.g. hot work, working at height etc. must be issued by a qualified member of the NZDF. The member of the NZDF who issues the permit is to ensure—
- (a) that all risk management requirements are addressed, and authorised, prior to the work commencing; and
 - (b) the work is being supervised while being undertaken; and
 - (c) that the work and site is deemed safe upon completion of the work.

Note: A [permit to work](#) on NZDF hazardous substances facilities is only to be issued by competent members of the NZDF and is not to be contracted out. A member of the NZDF is qualified to issue a permit to work subject to successful completion of NZQA unit standard 17590.

- (6) that life cycle management of each hazardous substances facility is undertaken and that funding provisions are made for hazardous substances facility maintenance and replacement.

Chapter 4 - Training

4.1. Introduction

- a. [DFO 10 Defence Force Orders for Safety](#) requires commanders, managers, officers in charge of a defence area and officers in charge of an activity to ensure that every person for whom they are responsible is provided with safety training appropriate to their role and responsibilities.
- b. This chapter specifies the requirements for safety training for the safe management of hazardous substances.

4.2. Awareness training for all members of the NZDF

- a. All members of the NZDF that are to be, or are attached to units, or inducted into a facility involved in the storage, handling or management of hazardous substances, must undertake the D61801 *NZDF Hazardous Substances Awareness* course via the NZDF Learning Management System.

4.3. Training for Approved Handlers and Compliance Officers

- a. **NZDF Approved Handler courses.** All workplaces that have either class 1 (explosives) or class 2–9 hazardous substances in quantities exceeding the levels set out in [NZDP 4.2.2](#) and [NZDP 4.2.3](#), and any other hazardous substances, are to have in their workplace a person who is qualified and deemed competent as an Approved Handler.
- b. Training for Approved Handlers is to be instructor led and provided by the New Zealand Defence College. The courses available are—
 - (1) D61802 *NZDF Hazardous Substances Handler, Class 2–9*.
 - (2) D14004 *NZDF Class 1 Explosives Approved Handler*.
 - (3) D14003 *NZDF Class 1 Explosive Approved Handler (Road Transport)*.

Note: Completion of D14003 is not a prerequisite for attendance on an Approved Handler training course.

- c. Nominations for Approved Handler courses may be submitted by commanders and managers directly to the New Zealand Defence College.
- d. **NZDF Compliance Officer courses.** The NZDF is to maintain a pool of Compliance Officers as determined appropriate by the Hazardous Substance Assurance Officer and the Staff Officer 1 Ammunition and Explosives. Training of Compliance Officers is to be instructor led and provided by the New Zealand Defence College. The courses available are—
 - (1) D14005 *NZDF Class 1 Explosives Compliance Officer*.
 - (2) D61803 *NZDF Hazardous Substances Compliance Officer, Class 2–9*.
- e. Nominations for Compliance Officer courses are to be made to and approved by the Hazardous Substance Assurance Officer.

4.4. Revalidation of qualifications

- a. Revalidation of qualifications is required to ensure that trained personnel remain current in their knowledge and that there remains a competent pool of personnel available in workplaces where hazardous substances may be present. The requirements for revalidation training are as follows—

- (1) **NZDF Personnel Hazardous Substance Awareness Course.** The D61801 *NZDF Hazardous Substances Awareness* course is normally only to be undertaken once. However, a commander or manager may direct that revalidation training is required due to reasons of increased risk or a change in workplace where hazardous substances are present. If revalidation training is required, this is to be undertaken by repeat of the D61801 *NZDF Hazardous Substances Awareness* course.
- (2) **NZDF Compliance Officers.** Revalidation training is only required for Compliance Officers who have not been actively employed in hazardous substances licence duties for a period of two years. Should revalidation be required, the candidate is to complete the appropriate Compliance Officer course.
- (3) If the Compliance Officer has remained continually active in licencing duties for a period of five years and is deemed competent by the Hazardous Substance Assurance Officer, the Hazardous Substance Assurance Officer may approve a further five year period of licencing duties.
- (4) **Class 1 Approved Handlers.** Revalidation is only required for NZDF Explosives Approved Handler who have not been actively employed in hazardous substances related duties continuously for two years. Revalidation is achieved by an appropriate Compliance Officer reviewing the trained state of the affected person and if required direct that further training be undertaken to address any shortfalls in competency or knowledge.
- (5) **Class 2–9 Approved Handlers.** Relicensing is required and must be undertaken at intervals of not more than five years. This is to be achieved by undertaking course D61804 *NZDF Hazardous Substances Approved Handler, Class 2–9* (relicensing).

4.5. Training sponsorship and providers

- a. The sponsor for all NZDF hazardous substances training is—
 - (1) Commander New Zealand Defence College (Commanding Officer Defence Training Institute) for class 1 hazardous substances; and
 - (2) Commander Logistics for class 2–9 hazardous substances.
- b. The authorised training providers are for—
 - (1) class 1 hazardous substances—the Defence Explosives Ordnance School;
 - (2) class 2–9 hazardous substances training—the Defence Corporate Training School;
 - (3) both schools are responsible for the development, maintenance and evolution of their hazardous substances training management plan(s).
- c. A copy of each approved New Zealand Defence College Course Data Sheet is to be electronically lodged with the New Zealand Defence College. The New Zealand Defence College is to securely store the courses, archive versions as necessary and make available electronic copies of the training management plan on request.
- d. The New Zealand Defence College is also responsible for moderating hazardous substances training to provide and ensure quality control on all courses.

Chapter 5 - Controls

Section 1 - General

5.1. Introduction

- a. Hazardous substances are regulated based on the risks they pose to people and the environment. Each new hazardous substance is classified in accordance with its composition, the hazard it presents, the quantities held and how best the risks can be managed. The rules for their safe management are referred to as controls. Controls are the measures to be taken to eliminate, or where elimination of risk is not reasonably practicable, to minimise the risk of hazardous substances causing adverse effects to the health and safety of people and the environment.

5.2. Principles of risk control

- a. Commanders and managers are to apply the following principles when there are hazardous substances present in the workplace—
 - (1) where possible and if practical to do so, substitute non-hazardous substances for existing hazardous substances used in the workplace; and
 - (2) where hazardous substances must be used, their composition should be the least hazardous possible; and
 - (3) where hazardous substances must be used, the quantities held are to be at the minimum level required to meet operational and contingency reserve stock requirements; and
 - (4) where hazardous substances are held in quantities that equal or exceed the threshold levels detailed in [NZDP 4.2.2](#) and [NZDP 4.2.3](#), an inventory of hazardous substances must be detailed on an Assessment of Collections form (HSNO [6a](#) or [6b](#)), and Safety data Sheets and Hazardous Substance Management Cards are to be available and retained and readily available for reference at the workplace.

5.3. Applying the controls

- a. Where hazardous substances must be used, the controls for their storage, handling, transport, use and disposal must be undertaken in accordance with this order, or where this order does not provide controls, in accordance with the controls specified by New Zealand legislation and Regulations (refer to paragraph [3.8.b.\(3\)](#)).

Section 2 - Controls for Labelling, Signage, Safety Data Sheets and Packaging

5.4. Controls for labelling, safety data sheets and packaging

- a. Members of NZDF are to apply the standards required for labelling, safety data sheets and packaging as specified in Part 2 of the [Health and Safety at Work \(Hazardous Substances\) Regulations 2017](#).

5.5. Controls for signage

- a. Signage is to be placed in accordance with r 2.5 of the [Health and Safety at Work \(Hazardous Substances\) Regulations 2017](#) for locating signage, except that signage is to be located site by site at points of pedestrian and vehicular access, within defence areas as appropriate to the hazardous substances present. All other standards for signage as specified by the Regulations are to apply.

Note: The general intent of r 2.5 is that signage should be placed at points of vehicular and pedestrian access/entry to the land where hazardous substances are located. For defence areas, placing signage on the perimeter fences is of little benefit to workers, visitors or emergency responders as the information provided would be non-specific to location or, if details to location were provided, it could create a security risk.

Section 3 - Controls for Class 1–9 Hazardous Substances**5.6. Controls for class 1 – (explosives) hazardous substances**

- a. The NZDF controls for managing class 1 hazardous substance are detailed in [NZDP 4.2.2](#). Members of the NZDF are to comply with these controls when managing class 1 hazardous substances.

5.7. Controls for class 2–6, 8 and 9 hazardous substances

- a. NZDF controls for managing class 2–6, 8 and 9 hazardous substance are detailed in [NZDP 4.2.3](#). Members of the NZDF are to comply with these controls when managing class 2–9 hazardous substances.

5.8. Controls for class 7 hazardous substances

- a. The controls for managing class 7 radioactive substances are specified in the [Radiation Safety Act 2016](#) and the [Radiation Safety Regulations 2016](#). The NZDF is not exempt from the Act and is to comply with the controls specified. The NZDF procedure for applying the required controls is specified in [NZDP 4.2.3](#).

5.9. Controls for asbestos

- a. The [Health and Safety at Work \(Asbestos\) Regulations 2016](#) sets out the requirements for management of asbestos and are binding on NZDF. Both the risks associated with asbestos exposure as well as prescribed minimum controls for the safe management of asbestos are detailed in [NZDP 4.2.3](#). Asbestos management controls for estate infrastructure are detailed in Chapter 5 of DFO 46 (TBI).

5.10. Controls for asbestos-containing products

- a. The controls for managing the import and export of asbestos-containing products are specified in the [Imports and Exports \(Asbestos-containing Products\) Prohibition Order 2016](#). Members of the NZDF are to comply with these Regulations. The NZDF procedures for the management of these substances are specified in [NZDP 4.2.3](#).

*Section 4 - Controls for NZDF Hazard Facilities***5.11. Major hazard facilities**

- a. Officers in charge of NZDF major hazard facilities are to ensure the following controls are complied with—
- (1) Preparation of an integrated Safety Management System documented in a single repository that is to incorporate the operational procedures and the safety case relevant to the facility. The safety case is to meet the requirements specified at [Enclosure I](#).

Note: The hazard facility operator and site manager are to involve facility workers in the preparation and review of the facility's Safety Management System.

Note: The approval and review authority for a safety case of an NZDF upper tier munition major hazard facility is the Hazardous Substance Regulatory Authority. For any other upper tier major hazard facility, it is WorkSafe.

- (2) Preparation and annual testing of emergency response plans for the facility in consultation with civilian emergency services and relevant local/regional authorities.
- (3) The Safety Management System for each facility is reviewed by the NZDF Hazardous Substances Facility Review Board no less than once every three years.
- (4) The facility operator investigates any unsafe incident or non-compliance and reports the outcomes as required to the Hazardous Substance Regulatory Authority and WorkSafe.

5.12. Significant hazard facilities

- a. All significant hazard facilities require the same controls detailed in paragraph [5.11](#).

5.13. Minor hazard facilities

- a. Minor hazard facilities are to apply the controls required to meet the licence requirements specified in [NZDP 4.2.2](#) and [NZDP 4.2.3](#).

5.14. Temporary hazard facilities

- a. While the quantities of hazardous substances contained within an temporary hazard facility may not trigger requirements for controls and compliance licencing, the Hazardous Substance Regulatory Authority may direct that action be undertaken where any failing in the Safety Management System of the facility is likely to cause reputational damage or possibly result in a notifiable incident or event and/or that would significantly impact on NZDF's ability to conduct operations.
- b. If there is any doubt as to the licence requirements, advice is to be sought from the Hazardous Substance Assurance Officer.

5.15. NZDF hazard facilities operated by a third party

- a. Where an NZDF hazard facility is operated by a third party (e.g. a contractor) and is located on an NZDF area, or is being operated by a third party on behalf of the NZDF outside of an NZDF area (i.e. NZDF deployed operations), the standards and controls specified in this order are to apply.

- b. Where there is non-compliance by a third party in the operation of an NZDF hazard facility, the NZDF sponsor of the third party arrangements is to undertake interventions in consultation with the contractor to ensure that the facility and its operations are safe.

Section 5 - Controls for Hazardous Atmosphere Zones

5.16. Hazardous atmosphere zones

- a. **General.** Hazardous atmosphere zones identify specific areas where flammable vapours may be present and that therefore require specific controls to be established while work is undertaken to prevent ignition.
- b. **Approving authority.** The approval authority for hazardous atmosphere zones is the Hazardous Substance Assurance Officer.
- c. **Controls.** Hazardous atmosphere zone controls are to be determined in accordance with the requirements of [NZDP 4.2.3](#).
- d. **Duration.** Hazardous atmosphere zones may be issued for a maximum of three years.
- e. **Revocation or suspension.** Revocation or suspension of a Hazardous atmosphere zone may be authorised by the Hazardous Substance Assurance Officer if—
- (1) a safety critical issue occurs that gives rise to the increased probability of a notifiable event arising or where the vapours present breach the limits specified for the hazardous atmosphere zone; or
 - (2) a significant change to plant, buildings or use of the building occurs; or
 - (3) the zone is no longer required and there are no flammable vapours present.

Section 6 - Controls for New and Tracked Hazardous Substances

5.17. Controls for new hazardous substances

- a. Commanders and managers must ensure that the register of hazardous substances at the workplace is accurate and up-to-date. Where a new hazardous substance is introduced into the workplace, commanders and managers are to ensure that the Safety Data Sheet is available, the required controls are instituted and the register is updated prior to the new hazardous substance being used.
- b. When a new hazardous substance is introduced and it does not have a Safety Data Sheet, the hazardous substance must be segregated and not used until such time as it has been classified, controls established and a Safety Data Sheet has been approved. Notification of a new hazardous substance requiring classification is to be made to the Hazardous Substance Assurance Officer at the earliest opportunity.
- c. Inventory management requirements for the introduction of new hazardous substances are specified in [DFO 52](#).

5.18. Controls for tracked hazardous substances

- a. Tracked hazardous substances are those specified in the [Health and Safety at Work \(Hazardous Substances\) Regulations 2017](#).

- b. Commanders and managers are to ensure that the location and movement of tracked hazardous substances are recorded in SAP while in the possession of the NZDF and to the point of handover to any third party.
- c. Inventory management requirements for tracked hazardous substances are specified in [DFO 52](#).

Chapter 6 - Emergency Planning, Safety Interventions and Incidents

Section 1 - Emergency Planning

6.1. Emergency preparedness

- a. Regardless of the controls put in place to prevent incidents occurring, they can still occur. Given this, the NZDF is obligated to plan for such incidents and take all measures possible to minimise the effects of any incident or near miss involving hazardous substances.
- b. The requirements for NZDF emergency plans for hazardous substances and hazardous substances facilities are based on requirements set out in the [Health and Safety at Work \(Major Hazard Facilities\) Regulations 2016](#) and the [Health and Safety at Work \(Hazardous Substances\) Regulations 2017](#).

6.2. Responsibilities

- a. [DFO 10 Defence Force Orders for Safety](#) identifies that officers in charge of a defence area and officers in command of an activity have primary responsibility for emergency planning. For the purposes of this order those responsibilities are further expanded as follows—
 - (1) **Officer in charge of a defence area.** Officers in charge of defence areas, in addition to the duties specified in DFO 10, are to ensure that Defence Area Incident Management Response Plans are fully integrated with any emergency plans for major and significant hazard facilities present, and that plans are tested and will work as intended.
 - (2) **Commanders and managers.** Commanders and managers in charge of an activity where hazardous substances are being stored or used, and that meet the compliance licence thresholds specified in [NZDP 4.2.2](#) and [NZDP 4.2.3](#) are to have in place the emergency planning requirements as detailed at [Enclosure G](#) and are to ensure that these are provided to the officer in charge of the defence area.
 - (3) **Operators and Site Managers of major and significant hazard facilities.** In addition to the requirements specified at paragraph 6.2 a.(2), operators and site managers of major and significant hazard facilities are to have in place the emergency planning requirements as detailed at [Enclosure G](#) and are to provide them to the officer in charge of the defence area.

Section 2 - Workplace-initiated Interventions

6.3. General

- a. A safety intervention is an action taken to eliminate or reduce a hazard, the absence of which would expose workers or any other person to a health and safety risk.
- b. A safety intervention may be initiated by a number of parties i.e. duty holders, NZDF Regulatory Authority, and external authorities e.g. WorkSafe, Territorial Authorities etc. Interventions undertaken by external authorities will generally only arise if the NZDF has failed to meet the requirements of this order.

- c. The purpose of this section is to specify the safety interventions to be taken by members of the NZDF to eliminate or minimise a hazard.

6.4. Duty holder- and worker-initiated interventions

- a. A duty holder-initiated safety intervention is the most powerful as it generally can be rapidly implemented. The type of safety intervention that should be taken is dependent on the level of risk present.
- b. **Low to medium risks.** A low to medium risk is one where if the risk was realised, the consequences of the potential hazardous substance incident would not result in a notifiable event. Refer to [Health and Safety at Work Act 2015](#), s 23 (injury) or s 25 (definition).
- c. In the event of a low to medium risk being identified, workers and any other person identifying the risk are to report the issue to the principal duty holders in control of the workplace. The duty holder is then to assess the risks to confirm the risk status and then eliminate the risk where possible, or minimise the risk so far as is reasonably practicable.
- d. **High to critical risks.** High to critical risks are those where—
- (1) a safety critical element of a hazardous substances facility or its plant (including software and firmware) that has the purpose of preventing or limiting the effect of a major accident, or the failure of which could cause or contribute substantially to a major accident, is not functioning correctly; or
 - (2) any incident or near miss involving hazardous substances that, if it occurred, would likely result in a notifiable event.
- e. In the event of a high to critical risk being identified, workers and any other person identifying the risk are, where practical, to make the facility or workplace safe, cease any work with the hazard giving rise to the risk and immediately report the issue to the principal duty holder in control of the workplace.
- f. The principal duty holder is to then notify the officer in charge of the defence area and the prime delegate, and then conduct an assessment to confirm the nature of the risk. Where the risk is confirmed, actions are to be undertaken to eliminate or minimise the hazard so far as is reasonably practicable.
- g. The prime delegate is to—
- (1) verify that the proposed controls to be put in place by the facility operator are adequate;
 - (2) establish what, if any, impact there has been on compliance licence or safety case standards; and
 - (3) notify the Hazardous Substance Assurance Officer and the Directorate of Safety and establish what other intervention and notification actions may be appropriate.
- h. Recommencement of work may only be undertaken subject to confirmation by a prime delegate that all safety critical element(s) of the facility are operating effectively and that any other risks have been eliminated or minimised so far as is reasonably practicable.

6.5. Health and Safety Representative interventions: Provisional Improvement Notices

- a. In the event a non-compliance with this order is identified by workers and consultation by workers or Health and Safety Representative, and the responsible duty holder has failed to resolve the issue, a Health and Safety Representative is to consult their prime delegate and request that a Hazardous Substance Provisional Improvement Notice be issued. (Refer to [Enclosure D](#)).
- b. Where a Hazardous Substance Provisional Improvement Notice is issued—
 - (1) the prime delegate is to provide the necessary support to the Health and Safety Representative and duty holder to facilitate resolution;
 - (2) the prime delegate is to notify the Hazardous Substance Assurance Officer; and
 - (3) the duty holder is to ensure that the notice is displayed in the affected workplace.

*Section 3 - Incident Reporting***6.6. Incident recording and notification**

- a. Incidents involving hazardous substances that have, or could have, resulted in injury to life, property or the environment are to be recorded using the NZDF approved safety event management reporting system.
- b. The requirement to notify incidents beyond immediate command and management levels is determined by s 55–s 57 of the [Health and Safety at Work Act 2015](#) and those specified in [Chapter 2](#) and [Chapter 3](#) of this order.
- c. Any notifiable incident occurring in an NZDF major or significant hazard facility is also to be notified by the facility operator to the Hazardous Substance Regulatory Authority and the Director of Safety.

6.7. NZDF investigation of events and incidents

- a. All hazardous substance events and incidents (including near misses), are to be investigated by persons who have successfully completed and qualified as NZDF accident investigators. The nature and extent of the investigation or review will depend on the severity of the accident or how potentially serious the incident was.
- b. In all situations, the investigation or review is to be sufficient to ascertain the hazard or risk involved, that existing standards and practices were followed and were adequate, and whether or not further action is required or warranted.
- c. An investigation of event, incident or near miss that is not a notifiable incident and/or that does not involve a safety critical element of a Hazardous substances facility should be initiated by unit or commander in consultation with a prime delegate.
- d. Where an event or incident involving hazardous substances is notifiable or involves a safety critical element of a hazardous substances facility, the incident is to be investigated by Command Investigation or Court of Inquiry regardless of whether it involved an uncontrolled release of hazardous substance or not.

- e. A preliminary assessment of the circumstances and severity of the incident is to be undertaken by the officer in charge of the defence area to establish which means of investigation/inquiry is to be undertaken. In either case, Defence Legal Services advice is to be sought.

6.8. External investigation of incidents

- a. Notwithstanding any NZDF investigations into incidents involving hazardous substances, WorkSafe and a territorial authority may also elect to undertake an investigation. This process is addressed as part of the NZDF/WorkSafe [Memorandum of Understanding](#).

Chapter 7 - Dangerous Goods for Transport

7.1. General

- a. The Regulations and codes of practice for the safe transport of dangerous goods by sea, land and air operate separately to the Health and Safety at Work (Hazardous Substances) Regulations 2017. Notwithstanding this, the NZDF is to comply with either New Zealand regulation, or where this cannot be met for operational reasons, is to be undertaken in accordance with policy specified below.

7.2. Maritime transport

- a. Maritime Transport Rule 24a regulates the transport of dangerous goods by sea and incorporates by reference the International Maritime Dangerous Goods Code. While the Maritime Transport Act 1994 and its Regulations do not apply to the NZDF, the NZDF adopts the International Maritime Dangerous Goods Code as its standard for transporting dangerous goods by sea. (Refer to [NZBR 001 RNZN Administration Manual Part 3, Chapter 1](#)).
- b. **NZDF Policy.** Dangerous goods being transported on—
 - (1) NZDF ships as cargo are to comply with the requirements of [NZDP 4.2.3](#) and [DFO\(N\)](#);
 - (2) NZDF ships as class 1 explosive stores are to comply with [NZDP 4.2.2](#) and [NZBR 862 RNZN Magazine and Explosives Regulations](#); and
 - (3) ordinary commercial vessels, or under a wet charter are to be prepared and declared in accordance with the standards of the Maritime Transport Rule 24 A, which incorporates by reference the International Maritime Dangerous Goods Code.

7.3. Land transport

- a. The [Land Transport Rule, Dangerous Goods 2005](#) regulates the transport of dangerous goods by land and incorporates by reference parts of the International Maritime Dangerous Goods Code, International Civil Aviation Organisation standards, International Air Transport Association standards, Dangerous Goods Regulations and NZS 5433.1:2012 *Transport of dangerous goods on land*, Part 1 Technical information.
- b. **NZDF policy.** Dangerous goods being transported by—
 - (1) NZDF vehicles, including those that are leased or hired by the NZDF, are to comply with requirements of the [Land Transport Rule, Dangerous Goods 2005](#) unless Land Transport rule 1.2(2)(f) applies, and such goods are to be transported for operational purposes in accordance with [NZDP 4.2.2](#).
 - (2) Commercial operators are to be prepared and declared in accordance with the requirements of the Land Transport Rule, Dangerous Goods.
- c. **NZDF driver qualifications.** NZDF drivers transporting dangerous goods must have the following qualifications—
 - (1) **Explosives.** Refer to [NZDP 4.2.2](#).

- (2) **Flammables in road tankers.** NZDF drivers transporting flammables in road tankers are to be NZDF Approved Handlers for those substances, and have a current dangerous goods endorsement to their driver licence.
- (3) **Other hazardous substances.** NZDF drivers transporting other hazardous substances will need to comply with the following:
 - (a) **Quantities greater or equal to NZDF Approved Handler levels.** Drivers do not need NZDF Approved Handler qualifications, but must have a 'dangerous goods' endorsement to their driver licence, or be accompanied by a passenger who has the endorsement and is in charge of the vehicle.
 - (b) **Quantities below NZDF Approved Handler levels.** Drivers need only the necessary driver licence for the vehicle used.

7.4. Air transport

- a. The Civil Aviation Act 1990 does not apply to NZDF aircraft, unless a provision in the Act or its associated Regulations or Rules expressly states it applies¹. Instead, Chief of Air Force has issued [DFO 9 Defence Force Standards for Operating Airworthiness](#) to meet equivalent levels of safety. This includes the transportation of dangerous goods on NZDF aircraft and adopts the standards specified by the International Air Transport Association.
- b. **NZDF Policy.** Dangerous goods to be transported on—
 - (1) NZDF aircraft are to comply with the policies specified in [NZAP 6085.001-2 Manual of Air Movements, Preparation of Dangerous Goods for Military Air Shipment](#).
 - (2) Foreign forces aircraft are to comply with the standards specified by the aircraft operator or by the International Air Transport Association, whichever is greater.
 - (3) Civil aircraft are to be prepared and declared in accordance with the Civil Aviation Rule, Part 92, which incorporates by reference the requirements specified by the International Civil Aviation Organization.

1. CAA Rules Part 77, 91 and 93

Chapter 8 - Review and Audit

8.1. Internal assessment programme

- a. Commanders and managers whose units store, use, handle or transport hazardous substances are to ensure that an internal assessment of compliance is conducted annually from 01 November. The assessment is to be undertaken using the NZDF unit/site internal assessment forms for class 1–9 hazardous substances management ([HSNO 01 NZDF Hazardous Substances Class 2-9 Annual Self-Assessment](#)) and class 1 (explosives) ([HSNO 01a NZDF Hazardous Substances Class 1 \(Explosives\) Annual Self-Assessment](#)).

Note: If the unit/subunit does not hold hazardous substances class 2–9, complete the declaration at paragraph 7 of the internal assessment form HSNO_01, sign and return to the respective manager.

- b. The internal assessment is to be completed by 01 April annually and forwarded to a prime delegate. Prime delegates are to review the assessments for completeness and accuracy, and are to release the reports through the Service or Branch Headquarters to the Hazardous Substance Assurance Officer by 01 May annually.
- c. The Hazardous Substance Assurance Officer is to raise a consolidated NZDF Hazardous Substances Report for review by the Hazardous Substance Regulatory Authority and Chief of Defence Force by 01 June annually.

8.2. Hazardous substances safety reports – class 1–9

- a. Chiefs of Service, Commander Joint Forces New Zealand and the Chief People Officer are to provide a brief Hazardous Substances Safety Report of class 1–9 hazardous substances to the Hazardous Substance Assurance Officer by 01 April annually advising—
- (1) numbers of members of the NZDF trained in hazardous substances awareness, NZDF Approved Handlers and NZDF Compliance Officers;
 - (2) outstanding issues affecting the training of members of the NZDF on hazardous substances;
 - (3) class 1–9 hazardous substances locations and hazardous atmosphere zones that have, or require, certification under NZDF policy;
 - (4) action plans, with time lines, to meet compliance;
 - (5) outstanding issues affecting safe storage, transport or use of hazardous substances, and milestones set to address these issues; and
 - (6) a list of accidents or near miss incidents involving hazardous substances that have caused, or could have caused, injury to people, damage to property or the environment, or in different circumstances may have caused injury or damage.
- b. Hazardous Substance Assurance Officer is to incorporate a consolidated NZDF safety report into the NZDF Hazardous Substances Report as referenced at paragraph [8.1.c.](#)

8.3. External assessment programme

- a. The NZDF is also to have its compliance against this order validated externally by independent auditors no less than biennially. To address this requirement the Hazardous Substance Assurance Officer is to coordinate with the Directorate of Safety and Internal Audit to ensure the audit programme is coordinated with any wider NZDF audit programmes. Locations or systems to be audited are to be determined based on risk and are to incorporate where practical both hazardous substances and health and safety matters.

8.4. Hazard Facility Review Board

- a. **Purpose.** The Hazard Facility Review Board (the Board) is to be convened for major and significant hazard facilities. The purpose of each Board is to ascertain if the facility is compliant and being operated safely. The Board is to give consideration to—
 - (1) the current and future risk profile for each facility;
 - (2) the controls in place;
 - (3) any corrective actions that are necessary to address existing or emerging shortfalls in controls;
 - (4) any corrective actions to be implemented resulting from recommendations of audits and investigations; and
 - (5) making decisions regarding the continuing operation of the facility.
- b. **Board membership.** The following are members of the Board—
 - (1) Hazardous Substance Regulatory Authority (co-chair);
 - (2) officer in charge of the defence area (co-chair);
 - (3) facility operator;
 - (4) site manager;
 - (5) worker representative;
 - (6) maintenance authority delegate;
 - (7) any other subject matter expert approved by the co-chairs, and
 - (8) Hazardous Substance Assurance Officer (secretary).
- c. **Assembly.** Boards are to be assembled—
 - (1) no less than once every three years;
 - (2) when substantial changes to or the redevelopment of an existing facility is planned;
 - (3) upon the completion of the concept design for a new facility; or
 - (4) any other occasion as directed by the co-chairs or the Hazardous Substance Regulatory Authority.

- d. **Board organisation and management.** The organisation and management task associated with the convening of the Board is to be undertaken by the Hazardous Substance Assurance Officer.
- e. The Hazardous Substance Assurance Officer is to ensure that each Board is preceded by a—
 - (1) formal risk assessment of the facility being undertaken no more than three months prior to the Board being conducted;
 - (2) promulgation of a question set to relevant board members or their delegates that address broader matters of interest beyond the scope of the risk assessment that includes but is not restricted to the configuration and life cycle status of the facility, identification and status of any new hazards that have arisen since the last review period and any incidents that have arisen since the last review period; and
 - (3) a site visit by the Board members.
- f. Board members are to present to the Board their component of the risk assessment and provide evidence to support status where required, notify the Board of any important changes, non-compliances, emerging concerns and any recommendations.
- g. A comprehensive record of the discussions, actions required and outcomes of the meeting is to be produced by the Hazardous Substance Assurance Officer and provided to co-chairs within three weeks of the Board convening.

End Matter

Schedules

Schedule A

Consequential Changes to NZDF Orders and Publications

1. The following orders and publications are to be revoked—
 - a. DFO 53, AL 27 Chapter 1

Schedule B

Record of Change

Amendment No.	Commencement Date	Reference	Details of Change	Approving Authority
Version 1.00	05 July 2018	COMLOG Min 2900/DLC/3 dated 30 June 18	At Issue	Chief Joint Defence Services
DFO 41 <i>Safe Management of Hazardous Substances</i> has been developed to meet NZDF's obligations specified by the Hazardous Substances and New Organisms Act 1996, the the Health and Safety at Work Act 2015, Health and Safety at Work (Hazardous Substances) Regulations 2017, the Health and Safety at Work (Major Hazard Facilities) Regulations 2016.				
Version 1.01	31 January 2019	CMMS WO 70107590	Administrative Amendment	Principal Advisor Logistics Policy and Doctrine, HQ DLC
To bring DFO 41 into alignment with current NZDF document formats and styles— a. standard clauses have been added to the Preliminary Provisions; b. the Meaning of terms tables (Glossary and Abbreviation, Acronyms and Designations) have been transferred from the End Matter to the Preliminary Provisions; c. errors in citations of legislation and standards have been corrected; d. broken links have been fixed; and e. spelling and grammatical errors have been corrected. No new content has been added and no existing content has been rewritten or deleted.				
Verson 1.02	25 November 2019	2900/DLC/4	Omnibus Amendment	COMLOG
Omnibus amendment as follows— a. Paragraph 2.11.f amended; b. References amended in paragraphs 2.11.b, c and e(3), 5.9, 6.4b, 7.2b(1); c. List of Related Publications expanded in Preliminary Provisions; d. Note added after paragraph 8.1a; and e. Minor corrections and routine updates throughout. All changes have been marked with revision bars.				

Enclosures

Enclosure A

Hazard Classification Descriptions

Explosiveness

Class 1

Flammability

Class 2 Gases

Class 3 Liquids

Class 4 Solids

Oxidisers

Class 5 Oxides

Toxicity

Class 6

Radiation

Class 7

Corrosiveness

Class 8

Ecotoxicity

Class 9

Table 1: Hazard Classification Subclass 1.1 to 5.2

Property	Explosiveness						Flammability									Oxidisers			
Class	Class 1						Class 2 Gases		Class 3 Liquids		Class 4 Solids					Class 5			
Subclass	1.1	1.2	1.3	1.4	1.5	1.6	2.1.1	2.1.2	3.1	3.2	4.1.1	4.1.2	4.1.3	4.2	4.3	5.1.1	5.1.2	5.2	
	Mass Explosion	Projection	Fire & Minor Blast	No Significant Hazard	Very Insensitive	Extremely Insensitive	Gases	Aerosols	Liquids	Desensitised Explosives	Readily Combustible	Self Reactive	Desensitised Explosives	Spontaneously Combustible	Dangerous When Wet	Liquids & Solids	Gases	Organic Peroxides	
Hazard Classification	1.1A						2.1.1A	2.1.2A	3.1A	3.2A	4.1.1A	4.1.2A	4.1.3A	4.2A	4.3A	5.1.1A	5.1.2A	5.2A	
	1.1B	1.2B		1.4B			2.1.1B		3.1B	3.2B	4.1.1B	4.1.2B	4.1.3B	4.2B	4.3B	5.1.1B		5.2B	
	1.1C	1.2C	1.3C	1.4C					3.1C	3.2C		4.1.2C	4.1.3C	4.2C	4.3C	5.1.1C		5.2C	
	1.1D	1.2D		1.4D	1.5D				3.1D			4.1.2D						5.2D	
	1.1E	1.2E		1.4E								4.1.2E						5.2E	
	1.1F	1.2F	1.3F	1.4F								4.1.2F						5.2F	
	1.1G	1.2G	1.3G	1.4G								4.1.2G						5.2G	
		1.2H	1.3H																
	1.1J	1.2J	1.3J																
		1.2K	1.3K																
	1.1L	1.2L	1.3L																
							1.6N												
				1.4S															

Table 2: Hazard Classification Subclass 6.1 to 9.4

Property	Toxicity								Corrosiveness			Ecotoxicity			
Class	Class 6								Class 8			Class 9			
Subclass	6.1	6.3	6.4	6.5	6.6	6.7	6.8	6.9	8.1	8.2	8.3	9.1	9.2	9.3	9.4
	Acutely Toxic	Skin Irritant	Eye Irritant	Sensitisation	Mutagen	Carcinogen	Reproductive Development	Target Organ	Metallic Corrosive	Skin Corrosive	Eye Corrosive	Aquatic	Soil	Terrestrial Vertebrates	Terrestrial Invertebrates
Hazard Classification	6.1A	6.3A	6.4A	6.5A	6.6A	6.7A	6.8A	6.9A	8.1A	8.2A	8.3A	9.1A	9.2A	9.3A	9.4A
	6.1B	6.3B		6.5B	6.6B	6.7B	6.8B	6.9B		8.2B		9.1B	9.2B	9.3B	9.4B
	6.1C						6.8C			8.2C		9.1C	9.2C	9.3C	9.4C
	6.1D											9.1D	9.2D		
	6.1E														

Physical Hazards Classifications**B-1 Explosives**

- Table 1 summarises the six different explosive hazard divisions and describes the effects that will occur in the event of an explosion. Note that any letter that follows the numerical code indicates the compatibility group of the explosive, not the degree of hazard that the explosive presents. Compatibility groups and mixing of different explosives are detailed in [NZDP 4.2.2](#), Chapter 4.

Table 1: Explosive Hazard Classes and Their Effects

Hazard class	Effects
1.1	Substances and articles that have a mass explosion hazard.
1.2	Substances and articles that have a projection hazard but not a mass explosion hazard.
1.3	Substances and articles that have a fire hazard and either a minor blast or a minor projection hazard, or both, but not a mass explosion hazard.
1.4	Substances and articles that present no significant explosion hazard.
1.5	Very sensitive substances that have a mass explosion hazard.
1.6	Extremely insensitive article that do not have a mass explosion hazard.

B-2 Other physical hazards

- Table 2 clarifies and summarises the different properties of each hazard class. Note that the letter that follows the numerical code indicates the degree of hazard that the substance presents, with the letter 'A' indicating the highest level of risk.

Table 2: Hazard Classes and Their Properties

Hazard class	Effects
2.1.1A	Flammable gas: high hazard
2.1.1B	Flammable gas: medium hazard
2.1.2A	Flammable aerosol
3.1A	Flammable liquid: very high hazard
3.1B	Flammable liquid: high hazard
3.1C	Flammable liquid: medium hazard
3.1D	Flammable liquid: low hazard
4.1.1A	Readily combustible solids and solids that may cause fire through friction: medium hazard
4.1.1B	Readily combustible solids and solids that may cause fire through friction: low hazard
4.1.2A	Self-reactive substances: type A
4.1.2B	Self-reactive substances: type B
4.1.2C	Self-reactive substances: type C
4.1.2D	Self-reactive substances: type D
4.1.2E	Self-reactive substances: type E
4.1.2F	Self-reactive substances: type F

Table 2: Hazard Classes and Their Properties

Hazard class	Effects
4.1.2G	Self-reactive substances: type G
4.1.3A	Solid desensitised explosives: high hazard
4.1.3B	Solid desensitised explosives: medium hazard
4.1.3C	Solid desensitised explosives: low hazard
4.2A	Spontaneously combustible substances: pyrophoric substances: high hazard
4.2B	Spontaneously combustible substances: self-heating substances: medium hazard
4.2C	Spontaneously combustible substances: self-heating substances: low hazard
4.3A	Solids that emit flammable gas when in contact with water: high hazard
4.3B	Solids that emit flammable gas when in contact with water: medium hazard
4.3C	Solids that emit flammable gas when in contact with water: low hazard
5.1.1A	Oxidising substances that are liquids or solids: high hazard
5.1.1B	Oxidising substances that are liquids or solids: medium hazard
5.1.1C	Oxidising substances that are liquids or solids: low hazard
5.1.2A	Oxidising substances that are gases
5.2A	Organic peroxides: type A
5.2B	Organic peroxides: type B
5.2C	Organic peroxides: type C
5.2D	Organic peroxides: type D
5.2E	Organic peroxides: type E
5.2F	Organic peroxides: type F
5.2G	Organic peroxides: type G

3. Table 3 clarifies and summarises the different properties of each health hazard class. Note that the letter that follows the numerical code indicates the degree of hazard that the substance presents, with the letter 'A' indicating the highest degree of hazard, or a specific effect.

Table 3: Health Hazard Classes and Their Properties

Hazard class	Effect
6.1A	Substances that are acutely toxic: Fatal
6.1B	Substances that are acutely toxic: Fatal
6.1C	Substances that are acutely toxic: Toxic
6.1D	Substances that are acutely toxic: Harmful
6.1E	Substances that are acutely toxic: May be harmful, aspiration hazard
6.3A	Substances that are irritating to the skin
6.3B	Substances that are mildly irritating to the skin
6.4A	Substances that are irritating to the eye
6.5A	Substances that are respiratory sensitises
6.5B	Substances that are contact sensitises
6.6A	Substances that are known or presumed human mutagens
6.6B	Substances that are suspected human mutagens
6.7A	Substances that are known or presumed human carcinogens

Table 3: Health Hazard Classes and Their Properties

Hazard class	Effect
6.7B	Substances that are suspected human carcinogens
6.8A	Substances that are known or presumed human reproductive or developmental toxicants
6.8B	Substances that are suspected human reproductive or developmental toxicants
6.8C	Substances that produce toxic human reproductive or developmental effects on or via lactation
6.9A	Substances that are toxic to human target organs or systems
6.9B	Substances that are harmful to human target organs or systems
8.1A	Substances that are corrosive to metals
8.2A	Substances that are corrosive to dermal tissue UN PGI
8.2B	Substances that are corrosive to dermal tissue UN PGII
8.2C	Substances that are corrosive to dermal tissue UN PGIII
8.3A	Substances that are corrosive to ocular tissue

B-3 Environmental hazards

4. Table 4 clarifies and summarises the different properties of each environmental hazard class. Note that the letter that follows the numerical code indicates the degree of hazard that the substance presents, with the letter 'A' indicating the highest degree of hazard, or a specific effect.

Table 4: Environmental Hazard Classes and Their Effects

Hazard class	Effects
9.1A	Substances that are very ecotoxic in the aquatic environment
9.1B	Substances that are ecotoxic in the aquatic environment
9.1C	Substances that are harmful in the aquatic environment
9.1D	Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action
9.2A	Substances that are very ecotoxic in the soil environment
9.2B	Substances that are ecotoxic in the soil environment
9.2C	Substances that are harmful in the soil environment
9.2D	Substances that are slightly harmful in the soil environment
9.3A	Substances that are very ecotoxic to terrestrial vertebrates
9.3B	Substances that are ecotoxic to terrestrial vertebrates
9.3C	Substances that are harmful to terrestrial vertebrates
9.4A	Substances that are very ecotoxic to terrestrial invertebrates
9.4B	Substances that are ecotoxic to terrestrial invertebrates
9.4C	Substances that are harmful to terrestrial invertebrates

NZDF Compliance Officer Responsibilities**Location compliance licences**

1. NZDF Compliance Officers are only authorised to issue location compliance licences and hazard atmosphere zone licences to a site that requires it if—
 - a. the inspection and licence process is undertaken jointly by two NZDF Compliance Officers (primary and secondary);
Note: The joint licence requirement exists to ensure peer review, cross check and to ensure independence can be maintained.
 - b. the NZDF Compliance Officers are qualified and authorised to issue a compliance licence for the requirement;
 - c. the NZDF Compliance Officers are satisfied that the licence requirements have been met; and
 - d. any examination required before the issue for the location compliance licence is carried out jointly by the primary and secondary Compliance Officers.
2. NZDF Compliance Officers must not issue a location compliance licences for which the certifier is also an officer in charge commander, manager or worker in the site or for any matter—
 - a. that the certifier is or has been responsible for; or
 - b. in relation to which the certifier has provided advice or any other assistance; and
 - c. in connection with the design, planning, or construction of anything relating to the matter.
3. If a NZDF Compliance Officer considers that any licence matter does not comply with relevant requirements in this order, the certifier must—
 - a. refuse to issue a compliance licence and notify the relevant commander or manager of the site in writing of the reasons for the refusal; and
 - b. notify the HSAO.
4. The significant hazard facility, facility operator must, within 15 working days after issuing a compliance licence, enter the details specified at paragraphs 11 and 12 and in the [NZDF Compliance Licence Register](#).

Conditional location compliance licence

5. An NZDF Compliance Officer may issue a conditional compliance licence for a hazardous substance location if the Compliance Officer considers that the failure to meet any relevant requirements of this order or any other instrument referred to in this order is minor.
6. A conditional location compliance licence must—
 - a. specify the relevant requirements that have not been met; and
 - b. state the date by which the requirements must be met.

7. The primary NZDF Compliance Officer must, within 15 working days after issuing a conditional location compliance licence, enter the details specified at paragraphs 12 and 13 of the conditional certificate in the compliance licence register.

Stationary container and other compliance licences

8. NZDF Compliance Officers are not authorised other than for class 3.1D to issue compliance licences for stationary container systems.
9. Stationary container, and any other compliance licences required by the NZDF may only be issued by a WorkSafe Approved Industry Compliance Certifier who has relevant expertise in the hazards and stationary containers to be inspected and certified.
10. When an industry compliance certifier is required, the inspection and licence process is to be supervised by a NZDF Compliance Officer to ensure that—
 - a. the inspection and licence process covers all matters within scope, and
 - b. any remediation matters are recorded for action.
11. The NZDF Compliance Officer who supervised the Industry Test Certifier is to enter the details of the certificate as specified at paragraphs 12 and 13 in the [NZDF Compliance Licence Register](#).

Register of compliance licences

12. An NZDF Compliance Officer who issues a compliance licence or supervises an industry Compliance Officer must enter the following information in the register for each compliance licence—
 - a. the date on which the certificate was issued and the date on which it expires;
 - b. the certificate serial number;
 - c. the date of suspension or cancellation of the certificate and the name of the individual or organisation who imposed the suspension or cancellation (if applicable); and
 - d. the name of the Compliance Officer who issued the certificate;
 - e. details of the prescribed requirements for which the certificate was issued;
 - f. if the compliance licence relates to plant, equipment, site or a location workplace, the physical location of the the workplace; and
 - g. for a conditional compliance licence issued for a hazardous substance location,—
 - (1) details of the hazardous substance location;
 - (2) the relevant requirements of these regulations or a safe work instrument for the hazardous substance location that have not been met; and
 - (3) the date by which the relevant requirements must be met.
13. The Hazardous Substance Assurance Officer is the NZDF authority for maintaining and monitoring the completeness of the compliance licence register.

Provisional Improvement Notice

HSNO 11
IAW DFO 41, Para 6.05, and Encl D

HSNO 11 (Page 1 of 2)		Serial Number: <input type="text"/>	
Hazardous Substances Provisional Improvement Notice (PIN)			
This Improvement Notice:			
<ol style="list-style-type: none"> 1. Is issued in accordance with Defence Force Order 41 (Orders for the Safe Management of Hazardous Substances). 2. Requires the Duty Holder to whom the notice is issued to remedy a contravention, or prevent a likely contravention of Defence Force Order 41 – Safe Management of Hazardous Substances. 3. Must as soon as practical, display a copy of this notice in a prominent place at or near the workplace, or part of the workplace at which the work is being carried out that is affected by the notice. 			
Unit:			
Address:			
Duty Holder (Position):			
Details of the contravention:	References:		
	Details:		
Measures to be taken to remedy the contravention:			
Date of issue:	/ /2019	Date compliance required:	/ /2019
Name:		Compliance met/signed off:	/ /2019

HSNO 11
IAW DFO 41, Para 6.05, and Encl D



HSNO 11 (Page 2 of 2)	Serial Number: <input style="width: 150px; height: 20px;" type="text"/>	
Maintenance Authority: (if applicable)		Endorsed/Not Endorsed <i>(please circle, Stamp or Sign)</i>
Prime Delegate:		Endorsed/Not Endorsed <i>(please circle and Stamp or Sign)</i>
Service/Branch Head:		Endorsed/Not Endorsed <i>(please circle and Stamp or Sign)</i>
Hazardous Substance Authority Office:		Endorsed/Not Endorsed <i>(please circle and Stamp or Sign)</i>
Comments:		

1. The interactive [HSNO 11](#) form is accessible on the NZDF Forms website

Terms of Reference for the NZDF Explosives Safety Committee**References—**

- A. DFO 41 *Safe Management of Hazardous Substances*.
- B. [DFO 10 Defence Force Orders for Safety](#).
- C. [NZDP 4.2.2 Hazardous Substances Safety \(Class 1 Explosives\)](#).
- D. [Health and Safety at Work Act 2015](#) and its Regulations.
- E. [Land Transport Rule, Dangerous Goods 2005](#).
- F. [NZS 5433.1:2012, Transport of Dangerous Goods on Land](#).
- G. [JSP 482 UK Ministry of Defence Explosives Regulations](#).
- H. [NATO AASTP Series](#).
- I. [UNECE Recommendations on the Transport of Dangerous Goods - Model Regulations](#).
- J. International Aviation Transport Authority.
- K. International Maritime Dangerous Goods.
- L. [Resource Management Act 1991](#).

Name

1. This committee shall be known as the Explosives Safety Committee.

Authority

2. The Explosives Safety Committee is authorised under this DFO, paragraphs [6.3](#), and [2.12.a](#).

Purpose

3. The purpose of the Explosives Safety Committee is to—
 - a. monitor NZDF's compliance with references A and B;
 - b. review and recommend revision to references A and B;
 - c. ensure that standard explosive procedures meet or exceed the standards in reference C to the extent reasonably practicable, and otherwise meets the standards in references D and E and best practice;
 - d. monitor compliance licence training and explosive facility inspections;
 - e. monitor the through life management of explosives;
 - f. review hazardous substances accident and near miss incident reporting; and
 - g. make recommendations to the Hazardous Substances Regulatory Authority for the issue of a Hazardous Substances Prohibition Notice in accordance with paragraphs [2.11.e](#), [f](#), and [g](#) of this DFO.
4. The Explosives Safety Committee may form a subcommittee from time to time to investigate or undertake additional and specific tasks as required.

Representation

5. The Explosives Safety Committee shall consist of the following—
 - a. The chairperson shall be the Staff Officer 1 Ammunition and Explosives. An alternate chairperson and or secretary may be appointed from within the committee as required by the chairperson.
 - b. The secretary shall be the Deputy Hazardous Substance Assurance Officer.
 - c. The prime delegate for the Navy shall be the Navy Authority Advisor.
 - d. The prime delegate for the Army shall be the Chief Ammunition Technical Officer.
 - e. The prime delegate for the Air Force shall be the Continuing Airworthiness Manager – Delegate Ohakea.
 - f. The prime delegate for the Headquarters Joint Forces New Zealand is to be J4 Branch.
 - g. Any other subject matter expert (internal and/or external) approved by the chairperson.

Note: Prime delegates shall appoint an alternative to attend the Explosives Safety Committee in their absence.

Meetings

6. Explosives Safety Committee meetings shall be held at least six-monthly or more frequently as scheduled by the chairperson—
 - a. The secretary shall call for agenda items at least one month prior to the planned meeting and distribute the agenda at least two weeks prior to each meeting if possible.
 - b. To be effective, the Explosives Safety Committee should attempt to work by consensus and *not* by majority vote.
 - c. A quorum for Explosives Safety Committee meetings shall consist of the chairperson (or appointed alternate), secretary and representative from the Services and HQ JFNZ, at least two of whom shall be a prime delegate.
 - d. The order of business for Explosives Safety Committee meetings should include the following—
 - (1) Introductory remarks by the chairperson.
 - (2) Business arising from the previous report.
 - (3) Discussion of agenda items.
 - (4) New business from each prime delegate.
 - (5) Closing remarks from the chairperson.
 - (6) Adjournment.

Reports

7. The secretary will draft the minutes and circulate to the prime delegates for comment. The chairperson and the secretary are to sign the minutes and distribute as appropriate. The secretary is to place a copy of the minutes onto the [NZDF Hazardous Substances Assurance Office website](#). Executive summaries, if applicable, of the minutes are to be sent to the following—
 - a. Vice Chief of Defence Force.
 - b. Chief of Joint Defence Services.
 - c. Deputy Chief of Navy.
 - d. Deputy Chief of Army.
 - e. Deputy Chief of Air Force.
 - f. Commander Joint Forces New Zealand.
 - g. Head of Defence Estate and Infrastructure.
 - h. Director of Safety.
 - i. Director of Health.

Powers

8. The Explosives Safety Committee has the power to make decisions and act within the purpose detailed at paragraph [3](#). The chairperson shall take for action, through separate correspondence, all matters that require higher approval.

Terms of Reference for the Hazardous Substances Safety Committee**References—**

- A. DFO 41 *Safe Management of Hazardous Substances*.
- B. [DFO 10 Defence Force Orders for Safety](#).
- C. [NZDP 4.2.3 Hazardous Substances Publication \(Class 2–9\)](#).
- D. [Health and Safety at Work Act 2015](#) and its Regulations.
- E. [Land Transport Rule, Dangerous Goods 2005](#).
- F. [Resource Management Act 1991](#).
- G. International Aviation Transport Authority.
- H. International Maritime Dangerous Goods.

Name

1. This committee shall be known as the NZDF Hazardous Substances Safety Committee.

Authority

2. The Hazardous Substances Safety Committee is authorised under this DFO, paragraphs [6.3](#) and [2.12.a](#).

Purpose

3. The purpose of the Hazardous Substances Safety Committee is to—
 - a. monitor NZDF's compliance with references A and B;
 - b. review and recommend revision to references A and B;
 - c. review and revise as necessary hazardous substance management issues affecting the NZDF and identify any interventions required to address those issues;
 - d. monitor compliance licence training and facility/location inspections;
 - e. provide advice to the commanders and managers on the safe management of hazardous substances;
 - f. liaise with Services and other portfolios on technical issues;
 - g. coordinate training across the NZDF;
 - h. review recommendations made by internal and external audit reports and ensure that corrective actions specified, where applicable, are being implemented;
 - i. provide technical advice to commanders and managers in the safe storage, processing, use and transport of hazardous substances; and
 - j. make recommendations to the Hazardous Substances Regulatory Authority for the issue of a Hazardous Substances Prohibition Notice in accordance with paragraphs [2.11.e](#), [f](#) and [g](#) of this DFO.

Representation

4. The Hazardous Substances Safety Committee shall consist of the chairperson, one prime delegate from each Service, HQ JFNZ, Defence Estate and Infrastructure, Defence Corporate Training School Hazardous Substances Specialist Adviser-Tutor and any other subject matter expert approved by the chairperson—
 - a. The chairperson shall be the Hazardous Substance Assurance Officer (HSAO).
 - b. An alternate chairperson and/or secretary may be appointed from within the Hazardous Substances Safety Committee as required by the chairperson.
 - c. Prime delegates shall appoint an alternate to attend in their absence.
 - d. The Hazardous Substances Safety Committee may form a subcommittee from time to time, from within or outside its membership, to investigate or undertake specific tasks as required.
 - e. Any subject matter expert (internal and/or external) approved by the chairperson.

Meetings

5. Hazardous Substances Safety Committee meetings shall be held at least six-monthly, or more frequently as scheduled by the chairperson.
 - a. The chairperson shall call for agenda items at least one month prior to the planned meeting and distribute the agenda at least two weeks prior to each meeting if possible.
 - b. To be effective, the Hazardous Substances Safety Committee should attempt to work by consensus and *not* by majority vote.
 - c. A quorum for Hazardous Substances Safety Committee meetings shall consist of the chairperson (or appointed alternate), Service and HQ JFNZ prime delegates, or their appointed representative, with at least three attendees being prime delegates.
 - d. The order of business for Hazardous Substances Safety Committee meetings should include the following—
 - (1) Introductory remarks by the chairperson.
 - (2) Business arising from the previous report.
 - (3) Discussion of agenda items.
 - (4) Review hazardous substances accident and near miss incident reporting.
 - (5) New business from each Service.
 - (6) Closing remarks from the chairperson.

Reports

6. The secretary will draft the minutes and circulate to the prime delegates for comment. The chairperson and the secretary are to sign the minutes and distribute as appropriate. The secretary is to place a copy of the minutes onto the [NZDF Hazardous Substances Assurance Office website](#). Executive summaries, if applicable, of the minutes are to be sent to the following—

7. The chairperson shall then approve and distribute the report as follows—
- a. Vice Chief of Defence Force.
 - b. Chief of Joint Defence Services.
 - c. Deputy Chief of Navy.
 - d. Deputy Chief of Army.
 - e. Deputy Chief of Air Force.
 - f. Chief Engineer and Technical Airworthiness Authority.
 - g. Commander Joint Forces New Zealand.
 - h. Head of Defence Estate and Infrastructure.
 - i. Director of Safety.
 - j. Director of Health.

Power

8. The Hazardous Substances Safety Committee has the power to act within the purpose detailed at paragraph [3](#). The chairperson shall take for action, through separate correspondence, all matters that require higher approval.

Emergency Response Plans

1. For workplaces that store, process, use and transport hazardous substances in quantities that equal or exceed the thresholds specified in [NZDP 4.2.2](#) and [NZDP 4.2.3](#), an emergency response plan must be prepared. For each emergency that may arise: the emergency response plan must—
 - a. Describe the actions to be taken to—
 - (1) warn people at the workplace, and in surrounding areas that may be adversely affected by the emergency, that an emergency has occurred;
 - (2) advise those people about the actions they should take to protect themselves;
 - (3) help or treat any person injured in the emergency;
 - (4) manage the emergency so that its adverse effects are—
 - (a) first restricted to the area initially affected; then
 - (b) as soon as practicable reduced in severity; then
 - (c) if reasonably possible eliminated; and
 - (5) re-establish the controls imposed in respect of the hazardous substances used at the workplace when those substances were approved for use, including the use of protective equipment or agents (for example, neutralisers or absorbents).
 - b. Identify every person with responsibility for undertaking any of the actions described in paragraph [a.\(1\)–\(5\)](#) and gives information on—
 - (1) how to contact the person;
 - (2) any skills the person is required to have;
 - (3) any special training needed to deal with an emergency involving the substance; and
 - (4) any actions the person is expected to take.
 - c. Specify—
 - (1) how to obtain information about the hazardous properties of any hazardous substance or substances that may be involved;
 - (2) means of controlling the substance or substances that may be involved;
 - (3) actions to be taken to contact any emergency service provider;
 - (4) the purpose and location of each item of equipment or material to be used to manage the emergency;
 - (5) how to decide what actions to take; and
 - (6) the sequence in which actions should be taken.
 - d. Provide—
 - (1) an inventory of hazardous substances present at the workplace; and

- (2) a site plan that shows the physical position of all hazardous substance locations within the boundary of the workplace (if applicable).

Extra information for emergencies involving flammable or oxidising substances

2. An emergency response plan must—
 - a. specify the type and location of the fire extinguishers provided, and any extra firefighting equipment, materials and/or systems provided, if any of the reasonably likely emergencies identified in the plan is a fire; and
 - b. provide for the containment of any liquid or liquefied oxidising substance or organic peroxide, to prevent it contacting any incompatible substance.

Availability of equipment, materials and people

3. Commanders and managers who are required to have an emergency response plan must ensure that all equipment and materials described in the emergency response plan, and all responsible people described in the emergency response plan who are on duty are—
 - a. present at the location concerned;
 - b. available to reach the location of the substance within the times specified in the plan; or
 - c. in the case of a trained person, available to provide the advice or information specified in the plan within a time specified in the plan.

Availability of emergency response plans

4. Commanders and managers who are required to have an emergency response plan for a workplace must ensure that the plan is available to—
 - a. every person identified as being responsible for executing the plan or a specific part of it; and
 - b. every emergency service provider identified in the plan.

Fire and Emergency New Zealand may review emergency response plans

5. A commander or manager may request Fire and Emergency New Zealand to review an emergency response plan to—
 - a. assess whether the role proposed for the service—
 - (1) is achievable; and
 - (2) is consistent with the operational policies of the service;
 - b. identify anything that may adversely affect service operations during an emergency.
6. While undertaking a review, Fire and Emergency New Zealand may request the workplace to provide further information in writing, if it considers that the emergency response plan provides insufficient information to enable the service to determine—
 - a. its role in the plan; or
 - b. the level or type of resources it may need to deploy to give effect to the plan.

7. Commanders and managers must have regard to any the recommendations Fire and Emergency New Zealand makes in relation to an emergency response plan.

Emergency response plan must be tested

8. Commanders and managers must ensure that its emergency response plan is tested at least every 12 months to demonstrate whether every procedure or action in the plan is workable and effective.
9. If there is a change to the persons, procedures and/or actions specified in an emergency response plan, the plan must be tested within 3 months of the change to demonstrate whether—
 - a. the changed persons can perform their functions under the plan; and
 - b. each changed procedure or action is workable and effective.
10. Commanders and managers must keep a record of the carrying out and the results of every test completed. The record must be retained record for at least 2 years after the date on which the record was made.

Plan may be part of other management documentation

11. An emergency response plan may be part of any other management documentation for an emergency such as a Base Incident Management Plan, whether—
 - a. required by the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016 or another enactment; or
 - b. undertaken by the NZDF for some other reason.

Major and Significant Hazard Facilities – Emergency Plans**Duty to prepare emergency plan**

1. In addition to the requirements of [Enclosure G](#), the operator of a major hazard facility or significant hazard facility must prepare an emergency plan that—
 - a. effectively addresses all potential health and safety consequences of a major incident;
 - b. is specific to the facility and the major incident hazards identified in the safety assessment;
 - c. is integrated into the facility's safety management system;
 - d. is understandable by workers, visitors and other people who are likely to be affected (to the extent necessary for them to fulfil their roles);
 - e. provides for the testing, review and updating of emergency procedures, including the frequency of any testing, review and updating; and
 - f. includes all matters specified in—
 - (1) Schedule 3 of the Health and Safety at Work (Major Hazard Facility) Regulations 2016;
 - (2) the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016; and
 - (3) Part 5 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.
2. The facility operator must, when developing and revising the emergency plan—
 - a. engage with workers at facility, and
 - b. consult with the—
 - (1) civilian emergency services organisations that have responsibility for the area in which the facility is located;
 - (2) local authority within whose district the facility is located, in relation to the potential off-site health and safety consequences of a major incident; and
 - (3) operators of any other nearby major hazard facilities.
3. The facility operator must ensure that the emergency plan addresses, to the extent that is reasonably practicable, the recommendations of the emergency services organisations consulted, if the recommendations relate to—
 - a. the content and effectiveness of the emergency plan; or
 - b. the testing proposed in the emergency plan.
4. The facility operator must have regard to any recommendations made by the local authority and any other person engaged with, or consulted in developing and revising the emergency plan.
5. The facility operator must—

- a. keep a copy of the emergency plan at the facility and ensure that the plan is readily accessible to persons who are required to use it; and
 - b. ensure that [Fire and Emergency New Zealand](#) has access to the emergency plan.
6. The facility operator must immediately implement the emergency plan if—
- a. a major incident occurs; or
 - b. there is an event at the facility that could reasonably be expected to lead to a major incident.

Duty to test emergency plan

7. A facility operator of a major hazard facility must test an emergency plan in accordance with the testing and review provisions of the emergency plan.
8. The facility operator must—
 - a. document the carrying out and the results of every test; and
 - b. retain the documentation for at least 2 years.

Information Required in Safety Case**Summary information**

1. A summary of the safety assessment, including—
 - a. the methodology used in the safety assessment; and
 - b. a list of the major incidents identified in the safety assessment.
2. A summary of the safety management system.
3. A summary of the emergency plan.

Descriptive information

4. A description of the engagement carried out with workers in the preparation of the safety case.
5. A description of the nature of the facility and its operation, including a description of on-site activities and processes that involve specified hazardous substances.
6. The particulars of all relevant New Zealand and international standards that have been applied, or will be applied, in relation to the facility or the plant used on or in connection with the facility.
7. A description of the specified hazardous substances and any other hazardous substances that are expected to be present at the facility, including—
 - a. their identification by name and by any other means necessary for clear identification;
 - b. their quantity;
 - c. their physical, chemical and toxicological characteristics (and any other hazardous characteristics); and
 - d. their physical and chemical behaviour under normal conditions of use or under foreseeable abnormal conditions.
8. A description of the physical and chemical processes associated with the specified hazardous substances that are present at the facility.

Diagram of facility

9. A diagram of the facility's general layout, showing—
 - a. the main process units;
 - b. the main storage areas;
 - c. the control rooms; and
 - d. the administrative buildings.

Pipelines

10. A description of any pipeline connected to the facility that has the potential to cause or contribute to a major incident, including details of—

- a. the substances that it conveys;
- b. its dimensions and layout;
- c. its contained volume at declared maximum allowable operating pressure;
- d. any equipment intended to ensure safety; and
- e. the design pressure (maximum allowable operating pressure) and temperature of its contents.

Scale plans

11. A detailed scale plan of the facility and its surrounding area that shows—
 - a. topographical information;
 - b. land use, occupancy and activities, and other major hazard facilities and hazardous substance storage sites that are known to the operator, within a 2 km radius of any point on the perimeter of the upper tier major hazard facility; and
 - c. the location of any identified external conditions that could affect the safety of the major hazard facility.

Operating and environmental conditions

12. The particulars of the design or operational limits associated with environmental conditions in which the facility has been designed to operate.

Demographic information

13. Demographic information about the local community, including surrounding land uses, within a 2 km radius of any point on the perimeter of the upper tier major hazard facility, that are permitted by the local authority.

Meteorological data

14. Meteorological data relevant to the estimation of the effects of any major incident.

Control and verification measures

15. A detailed description of the equipment, processes and procedures that are the major incident control measures and the performance standards for the major incident control measures.
16. A list of roles, responsibilities and any resources (internal and external) able to intervene in the event of any failure of a control measure.
17. A detailed description of the arrangements in place for independent and competent persons to verify that safety-critical elements are or will be suitable and will remain in good repair and condition throughout the life cycle of the facility, including a description of—
 - a. the nature and frequency of examination and testing;
 - b. review and revision arrangements; and
 - c. arrangements for the making and preservation of records.

Proposed facilities

18. In relation to a proposed facility, a description of the steps that have been taken to ensure that safety has been incorporated into the design and construction of the upper tier major hazard facility.

For guidelines refer to [WorkSafe.govt.nz](https://www.worksafe.govt.nz) (WorkSafe templates).