



Logic guide supporting decision making whether to open an inquiry

Policy adopted 24 June 2010

Introduction

This logic guide is a tool to support decision making by the Commission as to whether to open an inquiry into a transport incident or accident.

As well as helping to target resources to inquiries with the greatest potential to improve transport safety, use of the tool should help ensure decisions are compliant with legislation, consistent with international obligations, and robust to review.

The guide should also help transport sector regulators and others know what information the Commission will be looking for at time of notification (or should it emerge later).

The development process for this logic guide included review of existing processes, staff workshops, Commission consideration of a draft, public consultation on the draft, refinement, and adoption.

This document is structured for the purposes of setting out the policy, rather than giving detail of its operational application.

Contact

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Review of policy to be completed by

30 June 2013

Legislative basis

The [Transport Accident Investigation Commission Act 1990](#) (the Act) describes the Commission's purpose:

4. Purpose of Commission

The principal purpose of the Commission shall be to determine the circumstances and causes of accidents and incidents with a view to avoiding similar occurrences in the future, rather than to ascribe blame to any person.

The logic guide is ordered to reflect the tests and order of consideration set out in the Act in respect of accidents to be investigated:

13. Accidents to be investigated

- (1) As soon as practicable after an accident or incident has been notified to the Commission under section [27](#) of the [Civil Aviation Act 1990](#) or section [13\(4\)](#) of the [Railways Act 2005](#) or section [60](#) of the [Maritime Transport Act 1994](#), the Commission shall investigate the accident or incident if,—
 - (a) *[Repealed]*
 - (b) The Commission believes that the circumstances of the accident or incident have, or are likely to have, significant implications for transport safety, or may allow the Commission to establish findings or make recommendations which may increase transport safety; or
 - (c) In the case of an accident or incident that the Commission has decided not to investigate under paragraph [\(b\)](#) of this subsection, the Minister has directed the Commission to undertake an investigation in respect of that accident or incident.
- (2) Notwithstanding subsection [\(1\)](#) of this section, the Commission shall not investigate any maritime accident or incident where the implications of that accident or incident relate exclusively to the safety of persons employed or engaged solely to—
 - (a) Maintain a ship while it is not at sea; or
 - (b) Load or unload a ship; or
 - (c) Both—
unless the Minister directs the Commission to investigate that accident or incident.
- (3) The duty to investigate an accident or incident referred to in subsection [\(1\)](#) of this section shall include the power to investigate any aviation, maritime, or rail accident or incident that involves any combination of military and non-military persons, transport related things, or transport related services.
- (4) The Commission may investigate such additional accidents or incidents notified to it in accordance with section [27](#) of the [Civil Aviation Act 1990](#) or section [13\(4\)](#) of the [Railways Act 2005](#) or section [60](#) of the [Maritime Transport Act 1994](#) as it deems necessary.

- (5) If an accident or incident has not been notified to the Commission in accordance with section [27](#) of the [Civil Aviation Act 1990](#) or section [13\(4\)](#) of the [Railways Act 2005](#) or section [60](#) of the [Maritime Transport Act 1994](#), and the accident or incident is one that the Commission would investigate under paragraph [\(a\)](#) or paragraph [\(b\)](#) of subsection (1) of this section if it were so notified, the Commission may commence an investigation of the accident or incident.
- (6) Where an accident or incident has not been notified to the Commission in accordance with section [27](#) of the [Civil Aviation Act 1990](#) or section [13\(4\)](#) of the [Railways Act 2005](#) or section [60](#) of the [Maritime Transport Act 1994](#), the Minister may,—
 - (a) Where the Commission has decided not to investigate the accident or incident under subsection [\(5\)](#) of this section; or
 - (b) Where the accident is one that the Minister would direct the Commission to investigate under subsection [\(2\)](#) of this section if the accident had been notified to the Commission,—

direct the Commission to investigate the accident or incident, and in any such case, the Commission shall do so.
- (7) Where the Commission intends to undertake an investigation under this section, the Commission shall notify the Civil Aviation Authority, the New Zealand Transport Agency, or Maritime New Zealand, as the case may require, of its intention as soon as practicable.
- (8) For the purpose of subsection [\(3\)](#) of this section, military means with respect to any transport related thing, a transport related thing operated by the New Zealand Defence Force or a visiting force.

“Transport safety” and “transport related services” are, in the absence of definition in the Act, to be interpreted broadly in accordance with the purpose of the Act.

The Commission neither confines itself nor prefers to investigate accidents or incidents with commercial involvement or journeys from “A to B” rather than “A to A”.

All accidents or incidents with the potential for inquiry must be considered on their merits in accordance with s.13 having regard to the purpose of the Commission.

Logic guide overview

The guide has three parts with consideration moving onto a later part **only** if a recommendation/decision to open an inquiry has **not** been made in the preceding part:

1. **Consideration of circumstances** invites consideration of the types of circumstances connected with an event and the potential impact of these on a recommendation/decision whether to open an inquiry. The list of circumstances must not be regarded as preventing consideration of circumstances not captured by the list, and the decision to open an inquiry ultimately rests with the Commission. The decision is to be based on the overall balance of circumstances.
2. **Review against international obligations** presents the International Civil Aviation Organization and IMO definitions of events which shall or should be investigated.
3. **Review against watchlist** contains a list of event types for which a policy decision has already been made to investigate events related to list items, due to trends, history or other developments.

Part 1 - Consideration of circumstances

Does the Commission believe that the CIRCUMSTANCES...have SIGNIFICANT IMPLICATIONS FOR TRANSPORT SAFETY, or may allow... FINDINGS...RECOMMENDATIONS WHICH MAY INCREASE...SAFETY? If so, then an inquiry is to be opened under s.13(1) or s.13(5).

The table below is designed to facilitate consideration of the broad circumstances of an event and to avoid the risk of a decision being made founded on a narrow evaluation. The suggested circumstances are not weighted, the scales are indicative, and the table is not designed to be used in a strict arithmetic fashion. A balance of circumstances to the right on the table, or where a large number of circumstances are unknown, is likely to support further inquiries being made or a decision to open. If a decision is not made to open, then consideration should **move to the next part** (while also seeking more information for circumstances marked in the middle column and being prepared to revisit in the light of new information).

Impact on decision	Unlikely	Unsure / Need More Info	Likely
Circumstance			
Fatalities and serious injuries, actual and potential number	0-1 0-1	2-4 2-4	5+ 5+
Vehicle capacity for POB, freight, or motive related pollutants	Small for mode	Medium for mode	Large for mode
Dangerous goods involvement	None involved	Onboard, not compromised	Onboard, compromised
Vehicle damage	None/little	Moderate	Extensive
Collateral physical damage, actual and potential	None/little None/little	Moderate Moderate	Extensive Extensive
Involvement of interfaces such as traffic control, regulatory supervision, policy, shared service provision	Unlikely	Possible	Probable
Environmental, economic or social impact beyond those immediately involved	None/little	Moderate	Extensive
Any safety implications or recommendations likely to repeat previous or state the well known	Most likely	Don't know	Unlikely
Extent to which regulatory, coronial or OSH investigation should satisfy safety interests	In full	Somewhat	Not at all
Other circumstances?	(name and describe impact)		

Part 2 - Aviation and Marine only - Review against IMO/ICAO

The Commission's policy is that it will open an inquiry for notified events meeting the IMO/ICAO definitions of events that **SHALL** be investigated. Such an inquiry, if not already opened at Part 1, is opened under s.13(4).

IMO "should" events are ones which will already have identified at Part 1.

If an inquiry has not been opened at Part 1 for an ICAO "should" event then the circumstances are to be explored further and reviewed again and any decision to open made at Part 1.

IMO casualty code

- "shall investigate...every very serious marine casualty" (Event involving a ship required to comply with the Safety of Life at Sea Convention PLUS involving total loss, or a death, or severe environmental damage)
- "should investigate...if it is considered likely that...investigation will provide information that can be used to prevent marine casualties and marine incidents in the future."

ICAO Annex 13

- "shall investigate" accident
 - when person aboard with intention/during/after flight
 - fatality/serious injury in aircraft, direct contact with aircraft, jet blast
 - damage/failure adversely affecting strength, performance, flight characteristics AND would normally require major repair or component replacement
- "should investigate" serious incident
 - near collisions, near controlled flight into terrain
 - aborted takeoffs on closed/engaged runway
 - takeoffs from closed/engaged runway close to obstacles
 - attempted/landings on closed/engaged runway
 - gross predicted performance failures takeoff/initial climb
 - fires/smoke
 - use of emergency oxygen by flight crew
 - structural failures/engine disintegration not otherwise an accident
 - crew incapacitation in flight
 - fuel emergency
 - runway under/overshoot, excursions
 - system failures, weather, ops outside approved envelope which could have cause operating difficulties
 - failures of more than one system in a redundancy system mandatory for flight guidance and navigation

Part 3 - Review against watchlist

If there is a relationship between a notified event and a watchlist item then it is likely that an inquiry will be opened.

An inquiry under this part would be opened against s.13(4).

(At date of promulgation of this policy a watchlist was being developed through a separate policy process. When a watchlist is promulgated it will be available on the Commission's website and distributed to the Minister of Transport, Ministry of Transport, and transport sector regulators.)