The Environment Protection Act 2017
The Environment Protection Amendment Act 2018

Some Observations

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The new Environment Act

25(1): General Duty to minimise risks to health and the environment

A person who is engaging in an activity that may give rise to **risks of harm** to human health or the environment from pollution or waste must **minimise those risks, so far as reasonably practicable**

Harm: adverse effect on human health or the environment, incl amenity, **psychological health**
Material harm – actual effect (not negligible); or rectification > $10 000 (or prescribed amount)

Activity: **defined broadly** - includes the storage or possession of waste or any other substance or thing (Note: Section 39: duty to manage contaminated land)

Minimise: eliminate or reduce
    With regard to:
        Likelihood of risks eventuating
        Degree of harm
        What ought reasonably to know

Good: framed in terms of likelihood and consequence

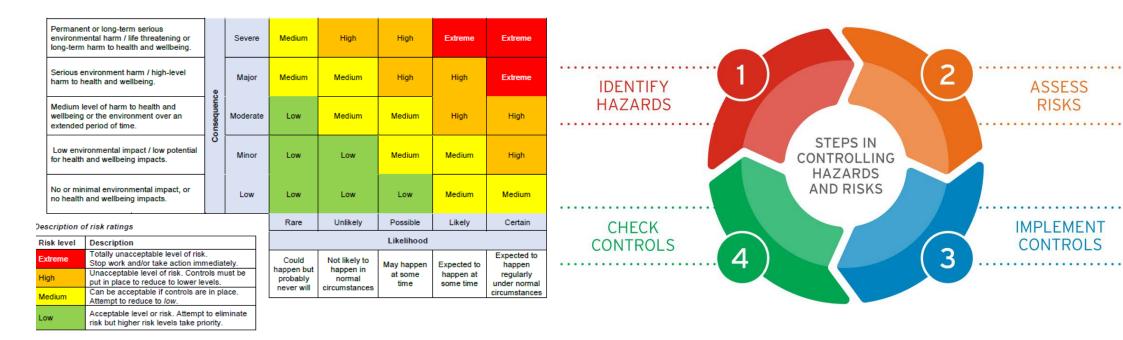**Potential for argument – what should be known**

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EPA Guide for Business Publication 1695 May 2018 Assessing and Controlling Risk

Purpose

This guide provides businesses with a risk management framework that can be applied to help prevent harm to human health and the environment.

This guide only addresses risks from pollution and waste.

Consequence		Likelihood				
Permanent or long-term serious environmental harm / life threatening or long-term harm to health and wellbeing.	Severe	Medium	High	High	Extreme	Extreme
Serious environment harm / high-level harm to health and wellbeing.	Major	Medium	Medium	High	High	Extreme
Medium level of harm to health and wellbeing or the environment over an extended period of time.	Moderate	Low	Medium	Medium	High	High
Low environmental impact / low potential for health and wellbeing impacts.	Minor	Low	Low	Medium	Medium	High
No or minimal environmental impact, or no health and wellbeing impacts.	Low	Low	Low	Low	Medium	Medium
		Rare	Unlikely	Possible	Likely	Certain
		Could happen but probably never will	Not likely to happen in normal circumstances	May happen at some time	Expected to happen at some time	Expected to happen regularly under normal circumstances

Description of risk ratings

Risk level	Description
Extreme	Totally unacceptable level of risk. Stop work and/or take action immediately.
High	Unacceptable level of risk. Controls must be put in place to reduce to lower levels.
Medium	Can be acceptable if controls are in place. Attempt to reduce to *low*.
Low	Acceptable level or risk. Attempt to eliminate risk but higher risk levels take priority.

STEPS IN CONTROLLING HAZARDS AND RISKS

1. IDENTIFY HAZARDS
2. ASSESS RISKS
3. IMPLEMENT CONTROLS
4. CHECK CONTROLS

What constitutes "all reasonable measures" to minimise risks from pollution or waste?

I suggest: Implement an Environmental Management System

ie develop and put in place controls, processes and systems that will avoid pollution/avoid harm

Refer to/consider practices relating to OHS – very similar

Some questions for industry:
Do we already have a suitable system?
Does our system need to be improved?
Do we need a new system?

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What approach/system might be sufficient?

We may see "**Compliance codes**" (Section 100) – EPA guidance – not mandatory
Maybe a management system, procedures and processes satisfying requirements for:
- An Environmental Management System (ISO 14001)
- A safe working environment – extended to also prevent pollution
- Drinking water quality management or wastewater system management - extended to also prevent pollution and manage wastes
- A "Risk-based Audit" (eg under existing Section 53V of the EP Act) to identify and advise on risks and requirements for management (eg a Facilities Audit), but then need to **implement** systems to control risks

The key: look at what management system we already have in place – and make sure it satisfies the requirements for minimising risks – and is *implemented*

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Key matters that need to be considered (25(4)):

a)Use and maintain plant, equipment, processes and systems to minimise risks
b)Use and maintain systems to identify, assess and control risks, and to evaluate the effectiveness of controls
c)Use and maintain systems to minimise harmful effects
d)Handle, store, use and transport substances in a manner that minimises risks
e)Provide training to staff
f)These all relate to "activity" and activity is very broad

Designers, consultants and contractors involved with design, manufacture, installation or supply of a substance, plant, equipment or structure:
a)Minimise risks of harm arising from the design, manufacture, installation or supply
b)Provide information necessary to minimise risks

What key management components might be considered?

Table 4.1   Comparison of Features from Various Management Frameworks

Framework for Management of Drinking Water Quality	ADWG	ISO 9001*	ISO 14001	HACCP	AS/NZS 4360 Risk Management	Partnership for Safe Water
1 Commitment to Drinking Water Quality Management	+	+++	+++	+	+++	+++
Drinking Water Quality Policy		+++	+++		+++	+
Requirements	++	+	+++	+++		+
Partnership Agencies						
2 Assessment of the Drinking Water Supply System	++		++	+++	+	+++
Water Supply System Analysis	+++		++	+++		+
Review of Drinking Water Quality Data	+++					+++
Hazard Identification and Risk Assessment	++		++	+++	+++	+
3 Planning – Preventive Strategies for Drinking Water Quality Management	+	+++	+++	+++	+++	+++
Multiple Barriers	+++					+++
Critical Control Points				+++		+
4 Implementation – Operational Procedures and Process Control	++	+++	+++	+++	+	+++
Operational Procedures	+	++	++	+++		++
Equipment Capability		++		++		+++
Materials and Chemicals	++	++		++		++
Operational Monitoring	+++	++	+++	+++	+	+++
Operational Preventive and Corrective Action	++	+++	+++	+++		+++
5 Verification of Drinking Water Quality	+++	+++	+++	+++	+++	
Drinking Water Quality Monitoring	+++	+++	+++	+++	+++	
Consumer Satisfaction	+++	+	+	+		
Short-term Evaluation of Results		+	+	++	++	
Corrective Action	++	+++	+++	+++		
6 Incident and Emergency Response	++	+	+++	+		+
Communication	+		+++			
Incident and Emergency Response Protocols	++	+	+++	+		
7 Employee Awareness and Training	++	+++	+++			+++
Employee Awareness and Involvement			+++			+++
Employee Training	++	+++	+++			+++
8 Community Involvement and Awareness	+++	+	+		+	
Community Consultation	+++				+++	
Communication	+++	+	+++		+++	
9 Research and Development	+	+				+++
Investigative Studies and Research Monitoring	+++					+++
Validation of Processes		+++		+++		+
Validation of Equipment		+++		+++		+++
10 Documentation and Reporting	+++	+++	+++	+++	+++	+
Documentation and Records Management	+	+++	+++	+++	+++	+
Reporting	+++	+	++	+	+++	+
11 Evaluation and Audit	+++	+++	+++	+++	+++	+++
Long-term Evaluation of Results	+++	+	+	+	+	+++
Drinking Water Quality Management Audit	++	+++	+++	+++	+++	+++
12 Review and Continual Improvement	++	+++	+++		+++	+++
Senior Management Review	++	+++	+++		+	
Drinking Water Quality Improvement Plan						

*ISO 9001:1994

+++   Aspect explicitly stated and covered
++   Aspect mentioned; not covered in any detail
+   Aspect not explicitly stated but could be interpreted to include

Particular components for consideration

(may be missing/useful to consider)

Commitment to Avoiding Environmental Harm
Environmental Management Policy
Requirements
Agencies
Assessment of the Activities and Operations
Activities and Operational System Analysis
Review of Monitoring Data
Hazard Identification and Risk Assessment
Planning – Preventive Strategies for Avoiding Environmental Harm
Multiple Barriers
Critical Control Points
Implementation – Operational Procedures and Process Control
Operational Procedures
Equipment Capability
Materials and Chemicals
Operational Monitoring
Operational Preventive and Corrective Action
Verification of Discharges
Discharge Quality Monitoring
Stakeholder Satisfaction
Short-term Evaluation of Results
Corrective Action

Incident and Emergency Response
Communication
Incident and Emergency Response Protocols
Employee Awareness and Training
Employee Awareness and Involvement
Employee Training
Community Involvement and Awareness
Community Consultation
Communication
Research and Development
Investigative Studies and Research Monitoring
Validation of Processes
Design of Equipment
Documentation and Reporting
Documentation and Records Management
Reporting
Evaluation and Audit
Long-term Evaluation of Results
Discharge Quality Management Audit
Review and Continual Improvement
Senior Management Review
Environmental Improvement Plan

An example – water authorities

Waste water treatment plant: effluent discharge/reuse

The following could be understood and managed by a WWTP Risk Management Plan as part of an authority's management system:

Risk assessment and risk control:

Do we know what is in the effluent?

Do we understand toxicity, required concentrations and how these are controlled?

Are the use/reuse requirements understood and controls are in place?

HACCP:

Do we understand trade waste discharges and have these adequately controlled?

Do we understand biosolids and requirements for use/disposal, are these met?

Monitoring and audit

Is the monitoring plan adequate, and is audit undertaken?

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Another example – industrial facility

Assessing activities and operations with a 53V Risk-Based Audit:

Existing guidance relating to these audits could apply

Key is to identify risks and recommend on the various matters required under Section 25(4) (above).

Following such an audit, then essential to **implement recommendations** and to **continue to implement management requirements** (monitoring, training, etc and document)

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Principles

13. Principle of integration of environmental, social and economic considerations: ie consider **sustainability** and how to achieve a **reasonable balanced outcome** (eg ISO 18504 (sustainable remediation)

14. Principle of Proportionality **(new)**: suggests that there is justification that **more effort and resources to high risk issues, less to low risk issues**

20. Precautionary principle: potentially difficult; could drive considerable **expenditure where there is uncertainty**

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A few other considerations

- **31**: Respond to harm caused: **restore** environment to state it was in before (is this to an acceptable risk **or to background** (much more difficult)?)
- **39**: Duty relating to **contaminated land**: identification, must **minimise risk** relating to contamination "ought reasonably to know of". Requires "reasonably practicable" clean up. Consultants: "provision of adequate information". **Notification** if remediation >$50,000
- **180**: allows "Better Environment Plans" - voluntary innovative risk-based ways for reducing risk
- **204**: "**Preliminary Risk Screens**" – guidance to be provided. Intention has been to avoid need for audit if risk is low. Allow consideration of land use in assessing risk (eg low sensitivity use, vapour barrier layer etc. **Input on draft**
- **275**: allows "Site Management Orders" for long term management of a site

Overall

Overall a risk-based approach – good

Places onus on owner and advisors to identify and minimise risk

Includes concepts of "reasonable" and "practicable" – good - need to see how this plays out.

Reiterates a set of principles – good - not clear that guidance to date has considered these

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Things that can be done to prepare

Review and input on Regulations/guidance being prepared by EPA

Audit/review of existing management system/procedures
- eg against a framework (eg ISO 14001 or the ADWG type framework)

Particularly:
- Do we know enough about possible hazards?
- Where might risks arise?
- Are the risks currently well enough controlled?
- Is there documentation that confirms all of this?

Not necessarily an onerous undertaking – but the key will be to set up systems and implement them

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