



Australian Government

Department of Education, Employment and Workplace Relations

NWP551A Evaluate, implement and monitor high-risk trade waste discharge approvals

Release: 2

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Modification History

NWP551A Release 2: Layout adjusted. No changes to content.

NWP551A Release 1: Primary release.

Unit Descriptor

This unit of competency describes the outcomes required to assess and process applications for high-risk trade waste discharges from large and complex industrial organisations, monitor compliance with the trade waste approval issued and renew, amend, suspend or revoke trade waste discharge approvals as appropriate.

Application of the Unit

This unit supports the attainment of skills and knowledge required for trade waste officers or inspectors with a specific responsibility for managing applications and approvals for high-risk liquid trade waste discharges to wastewater collection systems from large and complex industrial organisations.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the required performance needed to demonstrate achievement of the element. Where <i>bold italicised</i> text is used, further information is detailed in the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Advise customers on trade waste approval procedures.	1.1 Comprehensively answer customer queries regarding applications for high-risk trade waste approval with reference to organisational and statutory requirements. 1.2 Comprehensively answer customer queries regarding the procedures involved in processing and approving trade waste applications with reference to organisational requirements. 1.3 Comprehensively answer customer queries regarding the procedures involved in monitoring and renewing trade waste applications with reference to organisational requirements.
2 Evaluate trade waste discharges for new types of industries and/or new types of industry processes.	2.1 Identify significant pollutants generated by new types of industries, processes or sources. 2.2 Identify, interpret and assess information about known impacts, risk assessments and control. 2.3 Identify trade waste management processes and workplace procedures for new types of industries, processes or sources. 2.4 Develop and check contingency plans for new types of industries or processes. 2.5 Prepare trade waste management policies and plans for new types of industries and processes.
3 Assess applications for high-risk trade waste discharge approvals.	3.1 Assess high-risk trade waste applications to establish that all necessary documentation has been provided. 3.2 Assess high-risk trade waste applications against concentration, mass and flow limits, discharges of prohibited substances, local sewerage issues and consider environmental issues. 3.3 Assess proposed pre-treatment systems for suitability. 3.4 Assess monitoring, control systems and procedures for suitability. 3.5 Assess the adequacy of chemical storage, handling and spill prevention as appropriate. 3.6 Schedule and conduct onsite inspections as required.
4 Implement approved trade waste discharge applications.	4.1 Determine approval conditions on the basis of assessments and discuss with the applicant. 4.2 Calculate estimates of charges and discuss with the customer according to established charging policies and formulae. 4.3 Where applicable, monitor construction and commissioning activities to ensure compliance with approvals. 4.4 Determine monitoring activities and schedules and discuss with the customer. 4.5 Create and maintain database records, including charging parameters and monitoring schedule.
5 Monitor	5.1 Conduct routine monitoring of the compliance of customer

ELEMENT	PERFORMANCE CRITERIA
customer trade waste treatment and disposal and review trade waste approval.	trade waste treatment and discharge according to the trade waste approval and organisational requirements. 5.2 Establish processes to identify and report non-compliances with trade waste approvals according to organisational requirements. 5.3 Identify and implement enforcement measures and processes to manage identified non-compliances.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required skills:

- interpret and review hydraulic, architectural and site plans
- identify and evaluate trade waste-producing processes
- evaluate process inputs and outputs using relevant methodologies such as Mass Balance and Process Yield
- apply risk assessment and management based on AS 4360
- use flow measuring or flow assessment techniques
- use appropriate wastewater sampling and preservation techniques for onsite and laboratory testing
- interpret and evaluate sample analysis data
- interpret and apply legislation and policies applicable to trade waste
- develop monitoring plans and coordinate measuring, testing and sampling activities
- plan and conduct investigations
- assess environmental impact using ISO 14001 where appropriate
- assess waste treatment methods, processes plant and equipment
- negotiate and communicate
- use appropriate personal protective equipment for protection against physical, chemical and biological hazards

Required knowledge:

- relevant legislation
- relevant enterprise policies for trade waste management
- water quality parameters of significance to the wastewater system
- personal protection and safety precautions for wastewater sampling, including the requirement for relevant inoculations such as:
 - Q Fever
 - Hepatitis A&B
 - Polio
 - Tetanus
 - Diphtheria
- industrial waste treatment methods and processes for high risk industrial organisations
- hydraulics, chemistry and/or equivalent science
- basic knowledge of wastewater collection, treatment and disposal systems
- investigation procedures
- range of appropriate measuring, testing sampling procedures
- customer expectations and requirements
- occupational health and safety legislation

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The candidate should demonstrate the ability to evaluate, implement and monitor high-risk trade waste discharge approvals, including:

- advising customers of the trade waste management policies and procedures in operation
- advising customers of requirements for obtaining and complying with trade waste discharge approvals
- assessing and evaluating applications for high-risk trade waste treatment and disposal
- implementing charging and monitoring procedures
- completing records and reports

Context of and specific resources for assessment

Access to the workplace and resources including:

- documentation that should normally be available in a water industry organisation
- relevant codes, standards, and government regulations

Where applicable, physical resources should include equipment modified for people with disabilities.

Access must be provided to appropriate learning and/or assessment support when required.

Assessment processes and techniques must be culturally appropriate, and appropriate to the language and literacy capacity of the candidate and the work being performed. Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice
- a decision of competence should only be made when the assessor has complete confidence in the person's competence over time and in various contexts
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence
- where assessment is for the purpose of recognition (RCC/RPL), the evidence provided will need to be authenticated and show that it represents competency

demonstrated over a period of time

- assessment can be through simulated project-based activity and must include evidence relating to each of the elements in this unit

In all cases where practical assessment is used it will be combined with targeted questioning to assess the underpinning knowledge. Questioning will be undertaken in a manner appropriate to the skill levels of the operator, any cultural issues that may affect responses to the questions, and reflecting the requirements of the competency and the work being performed.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording, if used in the Performance Criteria, is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Customer may include:

- new or existing wholesale commercial organisations
- new or existing large and complex manufacturing and industrial organisations.
- new or existing large community facilities such as hospitals and educational institutions

High-risk trade waste may include:

- the liquid waste generated by any business or industry which involves one or more of the following characteristics:

- high discharge rates
- large discharge volumes
- high contaminant concentrations
- large contaminant loads
- contaminants of OHS concern
- contaminants of environmental/ecological concern

Organisational and statutory requirements may include:

- trade waste does not include domestic wastewater
- relevant legislation, for example:
 - commonwealth environmental legislation
 - state water legislation
 - state environmental legislation
 - local by-laws
- International Standards, for example:
 - ISO 14000 standards
- Australia/New Zealand Standards, for example:
 - National Plumbing and Drainage Code AS/NZS 3500
- relevant industry codes of practice for the management of trade waste, for example:
 - industry Code of Practice for the Photographic Industry (PURE)
 - National Health and Medical Research Council's (NHMRC) National guidelines for waste management in the health care industry, 1999
 - state plumbing and drainage code of practice
- requirements of regulatory authorities, such as:

- water authorities
- WorkCover
- EPA
- Health Department
- local councils

Documentation may include:

- identification of all waste producing processes
- detailed process information including all inputs and outputs
- water balance
- site hydraulic plan
- site plan
- equipment specification and process information for the proposed pre-treatment facility
- proposed flow measurement and other monitoring facilities
- proposed monitoring plan
- relevant environmental impact assessments
- proposed chemical and waste management contingency plans
- proposed effluent improvement plan
- stormwater drainage plan

Local sewerage issues may include:

- impact of proposed wastewater quantity and quality on the environment including odour management
- effluent management, re-use and disposal
- biosolids management, re-use and disposal
- impact on health and safety of water utility employees
- impact of proposed wastewater quantity and quality on the sewerage infrastructure
- impact of proposed wastewater quantity and quality on the sewage treatment processes

Monitoring activities and schedules may include:

- inspections of trade waste sites, processes and treatment facilities
- meter reading and discharge volume recording
- maintenance and calibration schedules and reporting
- sampling and testing locations, techniques and frequencies
- customer self monitoring programs and reporting
- on-line monitoring and/or alarms
- record keeping and reporting

Unit Sector(s)

Not applicable.

Competency field

Trade waste.