

WASTE AUDITING FOR RESOURCE EFFICIENCY

FACT SHEET

This fact sheet provides general guidance for auditing of operations to seek opportunities for increasing resource efficiency.

AUDIT OBJECTIVE

Understanding the objective of an audit helps to set the scope and criteria.

For example, if the purpose of the audit is to identify opportunities to reduce waste going to landfill, the scope could include all waste generated in production areas (or representative samples) and criteria could include the Waste Management Hierarchy.

If the purpose of the audit is to identify where waste is created during production, the scope might be limited to a specific process. Criteria could include the Lean Seven Types of Waste.

AUDIT SCOPE & CRITERIA

The audit scope should define the limits of the audit. This can be described in terms of the sites or locations to be audited, and the products, processes or business units included. It may specifically exclude some areas. For example, a product or process that is obsolete and being phased out.

Audit criteria can be established by the auditor or based on recognised best practice or clauses from an applicable standard or regulation.

Examples include ISO 14001: International Standard for Environmental Management Systems, Environmental Protection Notices, or the Cradle to Cradle Certified™ Product Standard.



During an audit, waste can be traced back to a process and avoided by applying controls, eg. work instructions and calibrated measuring equipment, at points of use.

METHODS


There are various methods for conducting an audit.

A 'desktop' audit can be conducted remotely by viewing documents and records. This offers efficiencies but requires the business to have documented policies and processes, up-to-date records and accurate data.

Direct observations and primary data collected on-site are more reliable but take time and may interrupt operations.

Interviews with staff, customers, suppliers and other stakeholders are helpful to validate observations and available data.

Any or all of these methods may be used alone, or in combination, and are effective, if we recognise the limitations of our chosen method(s).



During visual waste assessments, based on your own judgement, you will need to make an estimate of material volumes in bins surveyed.

PLANNING

An Audit Plan is prepared to ensure that all areas within scope are covered in the time allocated for the audit.

An Audit Plan is useful when the audit requires cooperation or participation of other people in the business. It gives an 'auditee' an opportunity to prepare and make sure they are available to answer questions and access information for the auditor.

CAUTION: Identify and assess health and safety hazards before commencing an audit. Appropriate personal protective equipment should be worn when entering any workplace and precautions taken to avoid contact with sharps or other hazardous waste while surveying bins.

PREPARATION

A checklist or form for collecting data can be prepared before the audit so that the right data is collected and maps directly to the audit criteria.

A comprehensive checklist, covering a range of relevant criteria, and a waste survey worksheet, for visual waste assessments, are available for download on the BALT website.

DATA COLLECTION

During the audit, collect data using your checklists or forms. Record findings as conformance (meets the criteria), nonconformance (does not meet with criteria), or observations. Keep your data in good order and record your findings as accurately and objectively as possible.

During visual waste assessments, based on your own judgement, you will need to make an estimate of material volumes in bins surveyed.

Estimate the amount of each material in the bin as a percentage of the total bin capacity and then calculate material volume based on standard bin volumes.

CAUTION: Do not touch or handle waste in bins to avoid harm from sharp objects or potential biohazards.

ANALYSIS

Summarise your findings in terms of the number of instances of conformance, instances of nonconformance, and opportunities for improvement.

Based on the findings, identify any trends or significant issues. For example, a high level of contamination in recycling streams may be traced to a specific work team, or a faulty item of equipment may be causing large quantities of waste from rejects.

For quantitative data, a spreadsheet may be useful to calculate results. A Waste Survey calculator is available on the BALT website for assessing potential recycling and contamination levels.

IMPROVEMENT

The purpose of any audit is to seek and prioritise opportunities for improvement.

Immediate action should be taken during an audit, if significant nonconformance or a safety hazard is identified.

For all other nonconformance, corrective action should be taken to address the root cause and prevent recurrence. See our Fact Sheet on Problem Solving for information on root cause analysis.

An action plan to address nonconformance and exploit opportunities for improvement should be prepared and actions closed out as quickly as possible. See our Fact Sheet on Preparing an Action Plan for more information.

The Business Resource Efficiency Program (BREP) is delivered by Business Action Learning Tasmania (BALT) in partnership with the Tasmanian government.

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