
Waste Diversion Rate Calculation Policy & Metric Tracking

1.0 Program Objective & Scope

The objective of this policy is to establish a standardized method for calculating and tracking the Waste Diversion Rate across all production and packaging lines, warehouse operations, and administrative areas within the facility. This metric supports the organization's commitment to reducing landfill waste, meeting provincial diversion targets (e.g., Ontario's Waste Free Ontario Act), and aligning with corporate sustainability goals. The scope includes all waste streams generated on-site: recyclables (paper, cardboard, plastics, metals), organics, compostables, and non-hazardous residual waste sent to landfill. Hazardous waste streams are excluded from this calculation but tracked separately under environmental compliance. The policy applies to all shifts, departments, and contractors operating within the facility boundaries.

2.0 Key Performance Indicators (KPIs) & Metrics

The primary KPI is the Waste Diversion Rate (WDR), calculated as: $WDR (\%) = (\text{Total Waste Diverted from Landfill} / \text{Total Waste Generated}) \times 100$. Total Waste Generated = Total Waste Diverted + Total Waste Sent to Landfill. Diverted waste includes materials sent to recycling facilities, composting sites, or anaerobic digestion.

Supporting metrics include: (a) Total Waste Generated per Unit of Production (kg/unit),

(b) Recycling Contamination Rate (% of recyclables rejected due to contamination),

(c) Landfill Waste per Employee (kg/FTE/month), and

(d) Cost per Tonne of Waste Disposal (\$/tonne). Data is collected from weigh scale tickets, hauler reports, and internal bin audits. All weights must be recorded in metric tonnes

(t) to two decimal places.

3.0 Roles & Responsibilities

Maintenance

Manager: Ensures waste handling equipment (compactors, balers, shredders) is maintained and operational; coordinates with haulers for equipment servicing; reviews monthly diversion reports and identifies improvement opportunities.

Machine Operators: Segregate waste at source into designated bins (recycling, organics, landfill); report bin overflows or contamination issues to shift supervisor; participate in quarterly waste audits. Plant Leadership (Plant Manager & Sustainability Lead): Set annual diversion targets; approve capital expenditures for waste reduction infrastructure (e.g., balers, sorting stations); review quarterly performance against targets; communicate results to corporate sustainability team. Environmental Coordinator (if applicable): Maintains waste manifest records; calculates and reports WDR monthly; conducts contamination audits; trains staff on proper segregation.

4.0 Program Execution & Data Collection

Data collection is executed through a combination of hauler-provided weight tickets and internal bin weighments. Each waste stream (recycling, organics, landfill) is weighed separately at the point of collection using a certified floor scale or truck scale. Weight tickets are scanned and uploaded to the facility's CMMS (e.g., ServiceGrid) within 24 hours of pickup. For streams without direct weighment (e.g., small bins), standard volume-to-weight conversion factors (approved by the environmental

coordinator) are applied. Data is recorded weekly by the maintenance clerk or environmental coordinator, with a monthly summary generated by the 5th business day of the following month.

All entries must include: date, waste stream type, gross weight, tare weight, net weight (tonnes), hauler name, and destination facility. Contamination incidents are logged separately with photographic evidence.

5.0 Review, Reporting & Continuous Improvement

Monthly WDR reports are generated by the environmental coordinator and reviewed by the Maintenance Manager and Plant Manager during the monthly operations review meeting. Reports include trend analysis (rolling 12-month WDR), comparison to target, and identification of top contamination sources. Quarterly, a cross-functional team (maintenance, operations, procurement) conducts a waste reduction kaizen event to identify root causes of low diversion or high contamination. Findings are documented in an A3 report and presented to plant leadership. Capital expenditure requests for waste reduction equipment (e.g., cardboard balers, organics processing units) are evaluated based on payback period (target < 2 years) and diversion impact. Annually, the program is audited against ISO 14001 or corporate environmental management system requirements, with corrective actions tracked in the CMMS.

Regulatory Disclaimer: This program document is a generic strategic template. The end-user assumes all liability for aligning these metrics, KPIs, and reliability frameworks with specific corporate goals and OEM engineering standards.