Zero Waste Event Standard

Environmental Certification Services Division

Version 1-0 (December 2021)

SCS

SCS Standards serve as the catalyst to advance the private and public sectors in achieving the United Nations Sustainable Development Goals, the blueprint for peace and prosperity for people and the planet.

This document is the property of SCS Standards and all inquiries regarding its use should be directed to:

SCS Standards
2000 Powell Street, Ste. 600 Emeryville, CA 94608 USA
510-452-8000
510-452-8001 fax

Additional information can also be found at SCS Standards Development | SCS Global Services.

DISCLAIMER

SCS does not make any warranty (express or implied) or assume any liability or responsibility to the user, reader or other third party, for the accuracy, completeness or use of, or reliance on, any information contained within this program, or for any injuries, losses or damages (including without limitation, equitable relief) arising out of such use or reliance. SCS authorizes the user to view, use and reference this program. This document may also be reproduced, displayed or distributed, including displayed on a website or in a networked environment. In exchange for this authorization, the user agrees that all copyright and other proprietary notices contained in this program remain the exclusive property of SCS. The user also agrees not to sell or modify this standard in any way for any public or commercial purpose. As an additional condition of use, the user covenants not to sue, and agrees to waive and release SCS and its employees from any and all claims, demands and causes of action for any injuries, losses or damages (including without limitation, equitable relief) that may now or hereafter have a right to assert against such parties as a result of your use of, or reliance on, this standard.

1. Summary

The SCS Zero Waste Event Standard provides a basis for the certification of municipal solid waste volumes diverted from landfills at singular events.[1] Certification provides third-party assurance that waste elements are diverted from landfills using any of the following methods: reuse, reclamation, recycling, composting, sale/donation and waste-to-energy.

This standard seeks to recognize Event Management's efforts to divert all waste generated at an event, such as a concert, fair, festival, over a specific time period. It also seeks to encourage visibility into downstream flow of waste leaving an Event. Event Mangers that can identify where the material flows, can potentially claim higher diversion rates.

Events demonstrating at least **75%** waste diversion can be recognized through certification under this standard. Events achieving 99% waste diversion can make a 'Zero Waste Event' certified claim. Events achieving below 99% will have their exact diversion stated on the certificate. For example, "85% Waste Diversion from Landfill Achieved".

A certificate, that will be publicly available on the SCS website, will showcase the Operator's achievements in waste diversion. The certificate shall include a transparent overview of the achievements, including the following required information:

- The percent of waste diversion the Event has achieved. Percentage is calculated by (diverted waste - residuals) / (total waste)
- Each method of diversion used (e.g., recycling, composting, waste-to-energy) as well as the percentage diverted using each method
- The progress the Event has made in waste diversion expressed as points; for example, if an event achieved 75% diversion last year and 80% diversion in the audited year; the certificate would show '+5'
- The name of the Event
- The timeframe in which the Event took place
- The locations included in the scope of certification, as well as those that are excluded. For example, a trade show hall is included, but host hotels are excluded.

2. Zero Waste Definitions

2.1 **Ash**: The material collected after incineration. This includes 'fly ash' which is the airborne ash collected after incineration and 'incinerator bottom ash' which is the heavy ash found in the bottom of an incinerator post burning.

2.2 **Average Residual Percentages**: Industry averages of residuals calculated in formal studies. For example, in the state of California, the California Environmental Protection Agency (CEPA)

[1] Scope of the audit excludes non-municipal solid waste such as but not limited to wastewater or wasted energy.

conducted a study which showed that the residuals percentages for the year 2005 are: Single-Stream Materials Recovery Facility (MRF): 14%, Multi-Stream: 6%, Mixed Waste: 81%, Construction and Demolition (C&D) 23%.2 These can be applied to an Operator's outgoing materials if an affidavit with a specific percentage cannot be provided by the recycling facility.

2.3 **Composted Material**: Materials organic in nature which are sent to a compost facility where they are allowed to decay to form relatively homogeneous and stable humus-like substance [ISO 14021].

2.4 **Construction and Demolition Debris**: Materials resulting from the construction and demolition (C&D) of buildings and other structures, including materials such as metals, wood, gypsum, asphalt shingles, roofing, concrete, rocks, rubble, soil, paper, plastics and glass, but excluding putrescible wastes (SWANA Technical Policies, Attachment B).

2.5 **Diverted Waste**: Internally processed waste and/or non-landfill-bound waste sent for external processing.

2.6 **Event**: An occasion or activity characterized by the gathering of people at a specific location, defined by a specific period of time at a specific location.

2.7 **E-Waste**: Consumer and business electronic equipment that is near or at the end of its useful life (such as computers, televisions, and cell phones) (CalRecycle).

2.8 **Hazardous Waste**: A waste listed by EPA; or a waste that is characterized by being ignitable, reactive, corrosive, or extraction procedure toxic (USDA Agricultural Resource Service)

2.9 **Mixed Waste Processing Facility**: A facility where recyclable materials are separated from waste that is landfill-bound.

2.10 **Multi-Stream Materials Recovery Facility (MRF)**: A facility at which source separated recyclables (recyclables that are separated into categories by the initial user before being picked up) are processed for sale to various markets.

2.11 **Operator**: Entity that manages the Event.

2.12 **Re-claimed Material**: Material that would have otherwise been disposed of as waste or used for energy recovery, but has instead been collected and recovered [reclaimed] as a "NEW" material input, in lieu of new primary material, for a recycling or a manufacturing process [ISO 14021]. Example: Broken musical instruments used to make an art display.

[2] See Table 4, page 3: https://www2.calrecycle.ca.gov/WasteCharacterization/PubExtracts/34106005/ExecSummary.pdf

2.13 **Reasonable Distance**: Length of space defined by the Event's location relative to the nearest recycling/composting/reuse facility and nearest Waste-to-Energy Plant: in situations where the nearest MRF is more than twice the distance to the nearest Waste-to-Energy Plant, disposal via Waste-to-Energy can be an acceptable approach under this standard.

2.14 **Recycled material**: Material sent to a recycling facility to be shredded, pelletized, or chemically altered to be remade into objects or substances for commercial use. Common materials include glass, metal, cardboard, and plastics, but may apply to other materials, as well.

2.15 **Re-used Material**: Material that would have otherwise been disposed of as waste or used for energy recovery, but has instead been collected at the end of the process to be used again for its initial purpose. Example: Name slips collected from previous events, and reused during future events.

2.16 **Residuals**: Waste material that remains after processing has taken place. Residuals percentages are specific to the type of recycling facility as well as to the state or city (depending on available data). Operator is responsible for obtaining these percentages in an affidavit from the facilities used for processing. Average Residual Percentages may be used if affidavits from facilities cannot be provided. See Average Residual Percentages above.

2.17 **Single-Stream Materials Recovery Facility (MRF)**: A recycling facility into which commingled recycling materials (recyclables that are mixed together by the initial user) are accepted and processed.

2.18 **Sold Waste Material**: Material defined as waste within a facility's processes which is sold as input into another Manufacturer's Process towards production of a good.

2.19 **Waste Diversion**: The practice of disposing of materials defined as wastes in an environmentally beneficial manner using the following methods: recycling, composting, re-use, reclaiming, prevention, waste-to-energy (instead of sending it to the landfill). Percentage is calculated by (diverted waste – residuals) / (total waste).

2.20 **Waste Diversion Achieved**: 50 – 100% of all waste material is diverted in one twelve-month period.

2.21 **Waste-to-Energy (WTE)**: Energy recovered from material that would have been disposed of as waste but instead has been collected through managed processes [ISO 14021]. This method includes incineration, pyrolysis, and anaerobic digestion where the main purpose and output of the process is to create energy.

2.22 **Zero Waste Event**: 99%+ of all waste material generated at the Event is diverted from the landfill.

3. Claims and Logos

3.1 Events are 'Zero Waste certified' if they achieve 99%, or more, diversion; all other events can claim their exact diversion percentage (minimum 75% diversion required). Claims are based on actual diversion data provided for the Event within specific time boundaries.

3.2 The Event can claim what percentage of their diversion activities is comprised of each diversion method on off-product claims (promotional material/ websites). The diversion percentage shall be stated on their certificate.

3.3 For use of the SCS logo, the Operator must follow SCS Logo Use Guidelines.

3.4 Auditor will verify correct use of on-product and off-product (online) claims prepared and/or made by Operator during the audit, as applicable.

4. Requirements for Waste Diversion

4.1 A minimum of 75% diversion of waste from landfill over the duration of the Event. All waste generated at the Event shall be considered.

4.2 The following list shows the requirements for waste materials generated at the Event, as well as how to calculate diversion amounts. Materials must be consistently tracked by either weight or volume.

4.2.1 Ash: No ash sent to landfill is considered diverted,[3] and shall instead be considered a waste.

4.2.2 Composted material

a. Calculate diverted amount as amount picked up by hauler for composting minus (-) residuals (as stated in affidavit or average residual percentage)
b. Affidavit with residual percentage is to be provided by Composting facility; affidavit can either state:
    i. the exact percentage of residuals in the waste sent by Operator, OR
    ii. the percentage of waste sent to landfill by Compost facility as a whole.
c. Operator must identify if the residuals have been landfilled or used for waste-to-energy. If the latter, this shall be counted towards the waste-to-energy diversion calculation.[4] Affidavit with this information is to be provided.

4.2.3 Electrical equipment (E-waste): 100% of any waste electrical equipment must be sent to certified e-waste disposer[5] at the end-of-life. Examples: broken musical instruments, cords,

[3] Calrecycle: As of January 1, 2020, the use of green material as ADC does not constitute diversion through recycling and shall be considered disposal pursuant to PRC Section 41781.3. (2)(A).
[4] https://www.calrecycle.ca.gov/docs/cr/75percent/mrfperfstds-092012wksp.pdf

wires. Certified e-waste disposers include e-Stewards and R2. If using other e-waste services, contact SCS for approval.

4.2.4 Re-used/ Re-claimed material

a. Count re-used or re-claimed material that would otherwise have been landfilled towards diversion. Example: name tags saved from previous event.

4.2.5 Recycled material

a. Calculate diverted amount as amount picked up by hauler for recycling minus (-) residuals (as stated in affidavit or average residual percentage)
b. Affidavit with residual % is to be provided by Recycling facility; affidavit can either state:
    i. the exact percentage of residuals in the waste sent by Operator OR
    ii. the percentage of waste emitted by Recycling facility as a whole
c. Operator must identify if the residuals has been landfilled or used for waste-to-energy. If the latter, this shall be counted towards the waste-to-energy diversion calculation.[6] Affidavit with this information shall be provided.

4.2.6 Sold waste material

a. Calculate diverted amount as waste material sold minus (-) residuals (as stated in affidavit or average residual percentage)
b. Affidavit with residual percentage is to be provided by purchaser of waste material; affidavit is to state the percentage of residuals generated from the purchased material. Affidavit must also state whether the residuals have been landfilled, used as waste to energy or otherwise diverted.
c. If it is not possible to obtain an affidavit, an industry accepted residual percentage can be used, instead. Supporting documentation must be provided. Residuals shall be marked as sent to landfill unless other evidence can be provided.

4.2.7 Waste-to-Energy

a. Maximum percentage allowed without further review: 25% of total waste stream.
b. Calculate diverted amount as amount picked up by hauler for Waste-to-Energy (-) residuals (as stated in affidavit or average residual percentage)
c. Affidavit with residual percentage is to be provided by Recycling facility; affidavit to state the percentage of residuals emitted by Waste-to-Energy facility which is sent to landfills
d. Note that the average residual percentage for Waste-to-Energy is 20% and shall be counted towards landfilled total.[7]
e. Some companies may be located in a region where their waste is not easily recycled. To use Waste-to-Energy as a diversion method for more than 25% of the total waste stream, the Operator must demonstrate that there are no facilities that can recycle,

[6] https://www.calrecycle.ca.gov/docs/cr/75percent/mrfperfstds-092012wksp.pdf

[7] https://www.epa.gov/smm/energy-recovery-combustion-municipal-solid-waste-msw#03

compost, or otherwise reuse the material within a *reasonable distance* (see definition above) from the Event.

4.2.8 Hazardous materials

a. To comply with the standard, the Operator must only demonstrate that the hazardous material has been disposed of in accordance with legal requirements. The amount of hazardous waste is not calculated in the diversion calculation.

b. However, if the Event can demonstrate that the hazardous material has been re-purposed, or re-used (in a safe manner), the amount can be counted towards diversion, on a case-by-case basis.

5. Requirements for Audits

5.1 Operator must demonstrate that they meet all local, state, and national laws regarding waste management including licenses, and evidence of proper disposal of all wastes.[8]

5.2 Affidavits, from external diverting facilities, must include:

5.2.1 Addresses and names of Facility and entity writing affidavit, respectively

5.2.2 Volume or weight of material received

5.2.3 Time boundary, for example: "For the waste received in the year 2021…" Must include the time period that is being certified

5.2.4 Information regarding residuals from received waste. There are options:

- the exact percentage of residuals in the waste sent by Operator OR
- the percentage of waste emitted by the receiving entity as a whole (rate should be no older than five years old)

5.2.5 Whether residuals from their own process has been landfilled, send for further processing, or used for waste-to-energy.

5.2.6 Affirmative statement indicating that all information provided is accurate and free of errors

5.2.7 Name and signature of person with authority and knowledge of information provided

5.3 **Desk Assessment:**

The following documents and activities are necessary to meet requirements of the standard and shall be reviewed:

5.3.1 Review of Zero Waste Event Plan

a. Defines the time and location boundaries of the Event

b. Lists all applicable waste regulations and a summary of how the Event complies with applicable regulations

[8] If local regulations prohibit a diversion method allowed by the standard, the diversion calculation shall be calculated both with the diversion method and without. A footnote shall be added to the certificate to indicate what the diversion percentage would be considered under local laws.

c. Lists all expected wastes generated during the Event and the plan for their diversion
d. Lists staff responsible for ensuring diversion at the Event
e. Definition of critical control points and responsibilities of workers at these points to assure diversion

5.3.2 Waste Diversion Calculator

a. The Waste Diversion Calculator is a tool that shall be used to calculate the Event's diversion. Each line represents a waste material. Calculations are based on the following inputs:
    i. Material Name
    ii. Waste Category
    iii. Amount of material and date it was diverted
    iv. Method of primary diversion or disposal & receiving facility information
    v. Residual rates of receiving facilities
    vi. Total weight or volume diverted or landfilled; include conversion factors if using volume of material disposed
    vii. Corresponding identifier for disposal: Date of disposal; Corresponding bill of lading number/ invoices number

5.3.3 Traceability Documents/ Records

a. All contracts, invoices, bills of lading, and any other document which track the movement of waste materials are kept on file and shall be made available to the auditor
b. Records of training regarding handling of wastes
c. Affidavits from entities receiving and diverting waste

5.3.4 Training Documents

a. Control point specific training for staff or contractors key in ensuring success of the program
b. Training for contractors involved in ensuring waste diversion at critical control points

5.4 **On-Site Audit of Infrastructure and Activities**

An on-site audit shall be done at every event to verify diversion activities.

5.4.1 Auditors will review of activities at critical control points and conduct interviews with staff (to assure training)

5.4.2 Auditors will assess suitability of on-site infrastructure that supports diversion activities (e.g., receptacles)

5.4.3 Review of signage at the Event to confirm the correct communication for disposal of waste materials

5.4.4 Review of any documents Operator would prefer to show in person, rather than sending on-line, (e.g., invoices, contracts).

5.5 **Post-Audit Activities**

5.5.1 Event management shall have the opportunity to address any non-conformities found during the audit.

5.5.1.1 Major Non-compliances are a fundamental failure to meet a requirement. These non-compliances must be resolved or closed out before a certificate can be awarded. The Operator has three months from the closing meeting to close the Major non-conformity.

5.5.1.2 Minor Non-compliances are characterized as an unusual lapse in the system and do not pose a threat to overall compliance with the standard.

5.5.1.3 Opportunity for Improvement is an observation made about an occurrence which does not impact compliance but could potentially affect the Event's compliance in the future.

5.5.2 Auditor has two weeks to prepare report, which is then sent to SCS for technical review.

5.5.3 SCS finalizes report and sends to Operator for review, along with request for non-conformity closure and/or action plan, if applicable.

5.5.4 Once evidence and action plan are submitted, and payment is received in full, SCS will publish the Zero Waste certificate and send final certificate and report to Event Management.

6. Certification and Re-Assessment

6.1 Upon completion of a successful audit, SCS will issue a checklist and certificate indicating:

a. The percent of waste diversion the company has achieved for the Event. Percentage is calculated as:
   (diverted waste - residuals) / (total waste)
b. Each method of diversion used (e.g., recycling, composting, waste-to-energy) as well as the percentage diverted using each method
c. Percent of waste sent to landfill
d. If applicable, the progress the Event has made in waste diversion (expressed as percent change over last year's diversion rate).
e. The name, location, and time period of the Event.

6.2 For continued certification, a re-assessment shall occur on a yearly basis or whenever the Event repeats.

7. Complaints Resolution Mechanism

7.1 Operator has the right to appeal the certification decision within 30 days of receiving the final checklist. Upon evaluation of the appeal, SCS shall communicate any change in the certification decision to Operator, including justification for the decision.

SCS Standards
2000 Powell Street, Suite 600, Emeryville, CA 94608 US
+1.510.452.8000 main | +1.510.452.8001 fax
info@scsconsulting.com