

LEED MRpc87:

Verified Construction and Demolition Recycling Rates

USGBC Implements MRpc87 Pilot Credit 3rd Point Now Available

Approved by the USGBC in May 2014, MRpc87 establishes an additional point in the LEED Pilot Credit Library available to projects that recycle and/or salvage nonhazardous construction and demolition materials by sending the project's total commingled waste materials to a mixed-recovery facility that has achieved third party verification of facility-average recycling rates. Project teams must meet the applicable diversion requirements of the construction waste credit in the applicable LEED rating system for the project.

The performance and controls required of the Certified facilities are necessary to ensure accuracy in quantifying project data. To achieve this high level of confidence and accuracy in the reported recycling rates, the qualified third-party organizations who certify the facilities must meet, at a minimum, the following program requirements:

- The certification organization follows guidelines for environmental claims and third-party oversight, including ISO/IEC Guide 65 or ISO 17065 and relevant portions of the ISO 14000 family of standards.
- The certification organization continuously monitors "certified" facilities to ensure that the facilities are operating legally and meeting the minimum program requirements for facility certification and recycling rates.
- Data submitted by the facilities to the certification organization in support of the recycling rate is audited. The audit includes, at a minimum: the evaluation of recyclables sales records, verification of facility sales into commodity markets, monitoring off-site movement of materials, and a review of the facilities' customers weight tags information.
- Facilities submit data to the certification organization that supports the recycling rate, such as a mass balance recycling rate (tons in/tons out) for a twelve month period, or quarterly sorts completed and verified by an independent third party entity.
- Breakdown of materials (by type and by weight), including analysis of supporting data relating to amounts (in tons) and types of materials received and processed at the facility.

- At a minimum, the third-party certifying organization conducts an on-site visit of the Facility for the first year certification, with subsequent site visits occurring at least once every two (2) years, unless additional visits are deemed necessary by the certification organization. The site visit will examine:
 - How materials enter, are measured, deposited, processed/sorted and exit facility,
 - Conduct interviews with key personnel,
 - Confirm equipment types and capacity,
 - Observe and verify load/materials sorting and accuracy,
 - Verify use and accuracy of scales including calibration frequency.
- Recycling rates shall adhere to these requirements:
 - Measurements must be based on weight (not volume), using scales.
 - Recycling rates must be available on a website and viewable by the general public.
- Facility recycling data submitted to certification program will be analyzed for recycling rates using a mass balance formula or quarterly sorts completed and verified by an in-dependent third party entity.
- Final recycling rate will include overall facility recycling rate with and without ADC/Beneficial Reuse, and will include separate recycling rates by material type as well as combined average including wood derived fuel/bio-fuel separate from other waste to energy or incineration end-markets.



The Recycling Certification Institute recently launched its online version of the Certification of Recycling Rates (CORR) program. CORR is the only National Standard program that provides a credible, ISO-level third-party certification of C&D facilities' recycling rates that meets the USGBC MRpc87 criteria.

The importance of third-party certification in C&D recycling

The Recycling Certification Institute began conducting independent third-party certifications of C&D recycling facilities in 2013. But how did C&D facility certification come about and why is it important?

The C&D industry has long been contributing to recycling and the recovery of resources as part of its normal course of business. The US Green Building Council's (USGBC) LEED program appeared on the scene comparatively recently and now provides 1 or 2 points to a project given a specified level of C&D recycling has been achieved. And local governments have increasingly been implementing a variety of rules and regulations for demolition, construction, and remodeling projects. In meeting this demand, the C&D industry has been increasing its performance, finding and creating markets for and recycling more materials than ever, as well as increasing their recycling and material recovery rates. However, what had been missing from this mixture was a means of applying a uniform standard to verifying the recycling rates reported by the C&D facilities...until recently.

In late 2013 the Recycling Certification Institute (RCI) began applying an ISO-level protocol to the Certification of C&D recycling facilities. The Construction and Demolition Recycling Association (CDRA) spearheaded the creation of the protocol, which was developed in collaboration with a cross-section of representatives from the building and construction industry, haulers, recyclers, and government under the guidance of the USGBC.

Registration and Certification

Facility operators wanting to become certified with RCI first "Register" via RCI's website (www.recyclingcertification.org). This is where facilities list fundamental information such as hours of operation, materials accepted, and the weight and types of materials that are recycled. Facilities may elect to register with RCI and not become certified. What that means is that these facilities are self-reporting and their data and operations have not been audited and verified by RCI. Their information will be published on RCI's website on the page of Registered Facilities.

For those facilities wanting to move up to the next level and become certified, RCI will dispatch trained Evaluators to conduct a thorough review of the facility's operations. The Evaluators will contact the interested facility to explain the process and schedule a site visit to conduct a review. Evaluators will examine the process train for the materials associated with the line or operation to be certified, compare that to the preliminary application (Registration), verify a mass balance of data for the most recent 12 months of operation, and develop an Evaluation report for the facility. A key element of the Evaluation is to review the points where a facility's data can be affected by staff and operations and then determine if controls are in place to maintain the integrity of the data. The desired outcome is that a high level of confidence can be established that the recycling rates reported by the facility are accurate, reliable, and verifiable. The Certified facility is then listed on RCI's web page under Certified Facilities along with its recycling rates and a copy of its Evaluation report.

The overall objectives of Certification are to: 1) Ensure adequate controls exist for the accounting of material inputs and outputs of a facility over a specified period of time; 2) Provide an objective, transparent, and not unduly costly process for eligible firms seeking to communicate their reuse, recycling, and recovery of C&D materials; and, 3) Provide users of

Certified facilities some assurance that the procedures and declarations are consistently applied and verified.

Not surprisingly, the issues related to--and need for--C&D facility Certification in Canada are quite similar to those in the US. For instance, in LEED Canada (CaGBC) there are up to 2 points issued for "Construction Waste Management" in the category of Materials and Resources. And with LEED v4, CaGBC is moving toward streamlining options to demonstrate compliance vis-à-vis international rating systems. While RCI's initial focus is on US facilities, its broader interest is in implementation of uniform standards that will serve industry, government, and LEED. Accordingly, RCI intends to expand its Certification efforts to locations where it can cost-effectively provide this essential service.

LEED Pilot Credit 3rd Point

Under the USGBC's LEED program, up to 2 points can be issued for "Construction Waste Management" in Materials and Resources. LEED v4 changes how the points may be distributed. For instance, projects may still receive 1 and 2 points for 50% and 75% diversion, respectively, from landfill; however, Alternative Daily Cover has been specifically excluded from diversion from landfill calculations. There has been much uncertainty surrounding the performance claims of C&D recycling facilities, which is primarily due to the lack of a uniform standard for the measurement and verification of the recycling rates reported by C&D facilities. With RCI's implementation of an ISO-level national standard Protocol, better accounting and verification of facility data leads to higher levels of certainty regarding the accuracy of reporting and recovery of C&D materials from the Certified facility.

In May of 2014, the USGBC approved a Pilot Credit 3rd Point to be added to the LEED Pilot Credit Library. Per MRpc87, Project teams must:

- 1) Meet the minimum recycling requirements of the C&D credit(s) in the applicable LEED rating system (waste generated/square feet credit Option is not eligible); and,
- 2) Utilize a recycling facility that processes and recycles comingled (mixed) C&D materials that has received third party certification of their recycling rates.

With USGBC's implementation of this Pilot Credit 3rd Point, **recycling C&D materials at a high-performing facility Certified by an approved organization can contribute up to 3 points to the Project.** The benefits are many, but considered central to this effort are: greater confidence in the issuance of LEED points; increased credibility of an industry that has contributed to the achievement of environmental goals; and movement toward a uniform high standard that reduces confusion for contractors providing services across jurisdictional boundaries.

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