

RCP Proxy Estimation Guide: How to Calculate When Primary Data Is Missing

WILL TYGART · Senior Advisory · Operator-grade intelligence

The RCP requires 12 data points per job. In practice, some of those data points will be unavailable — particularly for historical jobs being calculated retrospectively, or for field situations where documentation wasn't captured as completely as the standard requires. The proxy estimation methodology provides documented substitution methods that produce defensible, auditor-acceptable estimates when primary data is missing.

Key principle: A documented estimate with a stated assumption is always preferable to a blank field in an RCP report. ESG auditors understand that emissions calculation involves uncertainty — what they require is transparency about where estimation was used and what the basis of that estimation was. Undocumented guesses are not acceptable. Documented proxies are.

Data Quality Tiers

The RCP uses three data quality tiers, consistent with GHG Protocol Scope 3 guidance:

TIER	DESCRIPTION	AUDIT ACCEPTABILITY
Tier 1 — Primary measured data	Actual measurements from job records: GPS mileage, disposal facility receipts with weights, materials purchase orders by job	Highest — preferred for all data points
Tier 2 — Primary estimated data	Calculated from documented job parameters using RCP proxy methods: affected area × consumption rate, crew size × duration × unit rate	Acceptable — must document calculation method and basis
Tier 3 — Spend-based / invoice-based proxy	Dollar amount × industry average emission factor — the fallback of last resort	Lowest — use only when no job-specific data is available; flag prominently in data quality notes

Proxy Methods by Data Point

Data Point 1 — Vehicle Mileage (Transportation)

Primary source: GPS fleet tracking data, dispatch records, driver logs.

Proxy method: Use Google Maps or equivalent mapping tool to calculate round-trip distance from your facility (or prior job address for multi-stop days) to the job

site. Multiply by the number of crew trips documented in time records or invoices. This is a Tier 2 estimate.

Default proxy (Tier 3, last resort): Industry average mobilization distance for restoration contractors is 22 miles one-way (44 miles round trip). Apply this default only when no address or routing information is available. Note as Tier 3 estimate in data quality section.

Data Point 2 — Waste Transport Mileage

Primary source: Waste manifests and hauler receipts (these typically include origin and destination).

Proxy method: Use the distance from the job site to the nearest licensed disposal facility of the appropriate type (standard C&D landfill, licensed ACM facility, medical waste facility). Use online waste facility directories (EPA RCRA Info for hazmat, state environmental agency databases for C&D landfills) to identify the nearest appropriate facility.

Default proxies by facility type (Tier 3): Standard C&D landfill: 18 miles. Licensed ACM facility: 60 miles. Licensed PCB incineration: 150 miles. Medical waste facility: 55 miles.

Data Point 3 — Equipment Power Source

Primary source: Job documentation noting whether equipment ran on building power or contractor generator; generator fuel logs.

Proxy method: Default assumption is building electrical supply unless your company policy or the job type (remote location, building power unavailable) indicates otherwise. Note the assumption explicitly. If generator use is suspected but not documented, use the following generator fuel proxy: standard drying

equipment setup (3 dehumidifiers + 6 air movers) consuming approximately 2.5 gallons of diesel per 8-hour shift × number of drying days × 10.21 kg CO₂e per gallon diesel.

Data Points 4–5 — Chemical Treatments and PPE Consumption

Application rate proxies by job type and surface type:

JOB TYPE / SURFACE	ANTIMICROBIAL RATE	TYVEK SUITS PER TECH PER DAY	GLOVE PAIRS PER TECH PER DAY	N95/P100 PER TECH PER DAY
Cat 1 water — porous surfaces	0.008 L/sq ft	0.5	2	0.5
Cat 2 water — porous surfaces	0.015 L/sq ft	1.0	3	1.0
Cat 3 water — porous surfaces	0.025 L/sq ft (×2 applications)	2.0	5	2.0
Mold Condition 3 — first application	0.020 L/sq ft	2.0	4	1.5
Mold Condition 3 — second application	0.015 L/sq ft	2.0	4	1.5
Fire — smoke cleaning (chemical sponge + cleaner)	1 sponge per 50 sq ft + 0.010 L/sq ft cleaner	1.5	4	1.5
Hazmat abatement (Level C, standard exit protocol)	N/A (wetting agent: 0.003 L/sq ft ACM)	3.0 (full replacement each exit)	6	2 pairs OV/ P100

Biohazard Level C	0.025 L/sq ft × 2 applications	3.0 (full replacement each exit)	6	2 pairs OV/ P100
Biohazard Level B (decomposition)	0.025 L/sq ft × 2 applications	3.0 Level B full-suit (replace each exit)	6	Supplied air — 0 disposable

Data Point 6 — Containment Materials

Proxy method: Standard containment for a single affected room (standard ceiling height 8–10 ft): perimeter of affected area (linear feet) × ceiling height × 1.2 (overlap factor) = m² of poly sheeting. For compartmentalized commercial spaces, add 20 m² per additional doorway or penetration point.

Zipper doors: 1 per entry/exit point, typically 2 per contained area (entry + equipment pass-through).

Data Points 7–8 — Waste Volume and Disposal

Volume proxy: Use weight estimation proxies from the RCP Emission Factor Reference Table (drywall at 2.5 lbs/sq ft, carpet at 3.0 lbs/sq ft, etc.) applied to the demolished area documented in job scope records.

Disposal method proxy: If disposal facility type is unknown, apply default based on material type: standard C&D for non-contaminated demolition debris, regulated C&D or hazmat for contaminated materials (see Table 3 in the Emission Factor Reference).

Data Points 9–10 — Demolished and Installed Materials

Proxy method: Calculate from demolition scope records (affected area by room, material type documented in scope of work or Xactimate/Symbility estimate). Weight estimation proxies apply as above. For installed materials in reconstruction phase, use square footage from scope-of-work documentation and apply standard weight proxies.

Documenting Proxy Use in Your RCP Report

Every proxy estimate must be documented in the data quality section of the per-job carbon report. The format for documenting a proxy is: [Data point name]: [Tier 2 or 3 estimate]. [Brief description of proxy method]. [Source of proxy rate or assumption].

Example: “Vehicle mileage: Tier 2 estimate. Round-trip distance calculated using Google Maps from company facility to job site address (44 miles RT × 4 crew trips). Crew trip count from job invoices. Source: RCP proxy method P-4-1.”

Example: “PPE consumption: Tier 2 estimate. Cat 3 water damage standard consumption rate applied (2.0 Tyvek/tech/day, 5 glove pairs/tech/day) per RCP Table A-5. Actual PPE not tracked separately on this job.”

Can a per-job carbon report with all Tier 2 estimates be used in GRESB reporting?

Yes. GRESB accepts primary data at various quality levels, including documented estimates. A Tier 2 estimate is primary data (not spend-based estimation) and is acceptable. The data quality notation in the RCP report demonstrates that you have applied documented methodology rather than guessing, which is what auditors need to see.

What is the margin of error typical for Tier 2 proxy estimates?

Typical uncertainty range for Tier 2 RCP estimates is $\pm 20\text{--}35\%$ relative to primary measured data. This compares favorably to spend-based estimation (Tier 3), which typically has $\pm 50\text{--}100\%$ uncertainty for restoration work due to the high variability of job type, scope, and emission profile at equivalent invoice amounts.

Should you disclose the uncertainty range in the per-job carbon report?

The RCP does not require quantified uncertainty ranges in the per-job report, but noting that Tier 2 estimates were used in the data quality section effectively communicates to auditors that the figure carries inherent estimation uncertainty. For clients whose ESG consultants or auditors specifically request uncertainty ranges, use the guidance values above ($\pm 20\text{--}35\%$ for Tier 2).

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CONTINUE READING

- [RCP Emission Factor Reference Table](#)
- [The 12 Data Points Every Job Ticket Needs](#)
- [RCP Audit Readiness Guide](#)

SEE ALSO

- [RCP JSON Schema v1.0](#)
- [The RCP Job Carbon Report Template](#)

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