ISCC+, SGS, CNAS, and APR Certifications vs. EPA Standards

Why RNG Plastics Technology Represents True Circularity for North America

White Paper Prepared by RNG Plastics July 2026

Executive Summary

For plastic products sold and used in the United States, Canada, and Mexico, North American companies require certifications that meet or exceed the strict environmental and operational standards of the U.S. Environmental Protection Agency (EPA).

International or foreign-focused programs such as **ISCC+**, **SGS**, **CNAS**, and **APR** serve important roles in their respective markets or for mechanical recycling. However, none are designed for — nor recognized by — the EPA for the unique end-of-life scenario of EPA-regulated landfills.

RNG Plastics technology is the only solution engineered specifically to operate within the EPA's Landfill Methane Outreach Program (LMOP). It transforms non-recyclable and post-consumer recycled (PCR) plastics into renewable natural gas (RNG) / biogas at existing landfill infrastructure, creating a genuine closed-loop circular economy while capturing methane that would otherwise be released.

Renewable RNG Plastics have full Landfill-Safe ASTM and LCA certification through Intertek and qualify for high-value carbon credit benefits, unlike the very low levels of the others, if any at all.

This white paper explains the limitations of the four most commonly referenced certification bodies and demonstrates why RNG Plastics is the superior, EPA-compliant choice for true sustainability in North America.

1. ISCC+ Certification

ISCC+ is a European-led sustainability certification focused on bio-based and recycled materials for the circular and bioeconomy. It is widely used for voluntary markets and chemical/mechanical recycling pathways.

- It does not address EPA-regulated landfill requirements or the proprietary Landfill-Safe ASTM protocol used by RNG Plastics nor a plastics end-of-life (EOL) renewability.
- Designed primarily for European end-of-life scenarios, it lacks recognition or alignment with U.S. EPA standards for landfill gas capture and RNG production.

Limitation for North America: ISCC+ cannot verify or support plastics engineered for EPA LMOP landfill recovery.

2. SGS Certification

SGS provides global testing, inspection, and certification services, including PCR content verification and supply-chain audits.

- SGS certification is valuable for documenting recycled content percentages and general quality.
- It is not used for EPA recycling compliance or landfill-specific environmental performance in the United States.

Limitation for North America: SGS does not evaluate or certify the Landfill-Safe conversion process central to EPA goals and renewable RNG Plastics performance.

3. CNAS Certification

CNAS (China National Accreditation Service) is an auditing and quality certification body primarily serving Chinese manufacturers for domestic and export compliance.

- It offers useful quality and management-system verification for products sold in China.
- It has no relevance to U.S. EPA requirements or North American landfill standards.

Limitation for North America: CNAS is not recognized by the EPA and does not address the proprietary Landfill-Safe protocol of renewable RNG Plastics.

4. APR Certification

The Association of Plastic Recyclers (APR) sets design-for-recyclability guidelines and offers PCR certification focused on **mechanical recycling** streams in the U.S.

- APR is for traditional mechanical recycling of clean, sortable plastics.
- It has no provisions for Landfill-Safe recovery technologies such as Renewable RNG Plastics, nor does it consider methane capture or EPA LMOP compliance. Renewable RNG Plastics has no negative impact on the APR's mechanical recycling rules and actually facilitates upcycling of PCR materials as a zero-contamination solution.
- APR has no standard for recycled plastics contamination levels before nor after recovery, whereas all outputs contain micro- and nano-contamination, harmful to humans.

Limitation for North America: APR rules do not impact — or accommodate — RNG Plastics performance in regulated landfills.

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5. The Renewable RNG Plastics Advantage

RNG Plastics technology is fundamentally different and delivers a true zero-contamination solution:

- It is the only plastic solution designed to be **recovered at EPA-regulated landfills** through bio-assimilation into renewable biogas/RNG.
- It works seamlessly with both virgin and PCR plastics, including food- and chemical-contaminated materials that are typically deemed non-recyclable.
- It supports a true circular model: natural gas → plastic → renewable natural gas.
- As a Landfill-Safe technology, it requires no new infrastructure, is fully compatible with U.S. and Canadian regulations, and delivers consistent high-performance properties at a modest 2–5% cost premium and exceeds European ISCC+ performance when adapted for local EOL scenarios.

Unlike bioplastics or traditional mechanical recycling, RNG Plastics directly supports the EPA's mission to reduce methane emissions and advance energy independence.

Conclusion

ISCC+, SGS, CNAS, and APR each serve valuable but narrower purposes within mechanical recycling, European markets, or general quality assurance. None meet the higher, Landfill-Safe standards required by the EPA for plastics used across North America (and many other parts of the world).

RNG Plastics technology provides the only verified, EPA-aligned pathway to genuine circularity (certified by Intertek) — turning waste into renewable feedstocks while maintaining manufacturing and product performance and regulatory compliance.

Manufacturers, brand owners, and policymakers seeking real sustainability results in the United States, Canada, and Mexico are encouraged to adopt RNG Plastics.

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Bibliography

- ISCC System Official Website: https://iscc-system.org/ (ISCC PLUS certification for circular economy and bioeconomy)
- ISCC Plastics and Packaging page: https://iscc-system.org/about/markets/plastics-and-packaging/
- Association of Plastic Recyclers (APR) PCR Certification: https://plasticsrecycling.org/tools-and-resources/apr-tools/apr-pcr-certification/
- U.S. Environmental Protection Agency – Landfill Methane Outreach Program (LMOP): https://www.epa.gov/lmop
- U.S. Environmental Protection Agency – Plastics Material-Specific Data: https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/plastics-material-specific-data
- SGS Plastics Reduction and Circularity Services: https://www.sgs.com/en-us/industry/consumer-products-and-retail/plastics-reduction

Note: No additional "support data from the ISCC entity" is required beyond the official links above. The white paper is intentionally comparative and based on the functional differences between the programs rather than external third-party validation.

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