The Texas Commission on Environmental Quality (TCEQ, agency, or commission) adopts new §§328.401, 328.411, 328.421, 328.431, 328.441, and 328.451.

New §§328.411, 328.421, 328.431, 328.441, 328.451 are adopted with changes to the proposed text as published in the March 27, 2026, issue of the *Texas Register* (51 TexReg 2011) and, therefore, will be republished.

New §328.401 is adopted without changes to the proposed text as published in the March 27, 2026, issue of the *Texas Register* (51 TexReg 2011) and, therefore, will not be republished.

Background and Summary of the Factual Basis for the Adopted Rules

The adopted rules implement House Bill (HB) 3229 passed by the 89th Texas Legislature, 2025. HB 3229 amended Texas Health and Safety Code (THSC) by adding new Chapter 376, Renewable Energy Component Recycling Facilities, which establishes new reporting, financial assurance, and penalty requirements for recycling facilities that accept, process, and repurpose components to recover valuable materials from wind turbine generators, solar energy devices, and battery energy storage systems. THSC, Chapter 376 requires owners of recycling facilities that recycle renewable energy components (henceforth called recycling facilities) to submit an annual report, by January 15, containing an inventory of unrecycled renewable energy components (including unrecycled components located offsite that the facility has taken control or ownership of), an estimated timeline to recycle these materials, a cost estimate to recycle or dispose the materials prepared by an independent, third-party professional engineer licensed in Texas, and evidence of financial assurance for the cost estimate provided. The commission adopts new Subchapter M, Requirements for Renewable Energy Component Recycling Facilities, in Chapter 328 to implement HB 3229.

HB 3229 also amended Texas Water Code (TWC) §5.013(a)(11) to give TCEQ jurisdiction over the responsibilities assigned by THSC, Chapter 376 and amended TWC, §7.052 to set the amount of the penalty for a violation of THSC, Chapter 376 to not exceed $500 a day for each violation. Additionally, HB 3229 required the commission maintain a list of recycling facilities in compliance with THSC, Chapter 376 on the agency's website.

THSC, Chapter 376 is silent on many of the programmatic elements necessary to fully implement the statute, such as the activities that must be included in the cost estimate and the procedures for demonstrating financial assurance. The commission is using its general statutory authority to adopt provisions addressing these programmatic elements on which the statute is silent to provide consistency with other agency programs and clarity for regulated entities. All adopted rules are fully described in the *Section by Section Discussion* portion of this preamble.

Closure and Financial Assurance Applicability

The commission recognizes that THSC, Chapter 376 requires the owner of the recycling facility to submit evidence of financial assurance to the commission, with the commission being the beneficiary of the financial assurance and able to access and use any funds from the financial assurance to recycle or dispose of all unrecycled components in the event that the owner of the recycling facility fails to do so.

The commission's financial assurance rules are based on proper closure, in accordance with respective program rules. If closure is not properly performed, then the commission can use financial assurance to conduct closure. Typically, closure for recycling facilities under existing

requirements will begin when the owner or operator provides written notification under Title 30, Texas Administrative Code (30 TAC) §330.11(c) and §328.5 for municipal solid wastes or under 30 TAC §335.6 for nonhazardous industrial wastes to the executive director of their intent to close the facility. Solely for the purpose of Subchapter M, the commission is adopting a definition of closure to mean the act, outside of daily operations, of collecting all components accepted from a wind turbine generator, a solar energy device, or a battery energy storage system, including any components the recycling facility has taken title to or assumed control of regardless of whether the components are located at the recycling facility, and properly recycling or disposing of the components. To implement the requirements for financial assurance from THSC, Chapter 376, recycling facilities subject to Subchapter M may be required to perform closure. The recycling facility owner or operator's failure to perform closure when required allows the executive director to call on the financial assurance mechanism under 30 TAC §37.101.

Enforcement, Including Penalties

The commission may conduct investigations to ensure compliance with this subchapter. The commission and the attorney general, as appropriate, will enforce this subchapter and may, among other actions, institute a suit under TWC, §7.032 for injunctive relief against a person to restrain the violation or threat of violation of adopted Subchapter M.

Failure to comply with this subchapter may result in enforcement, including penalties. The amount of an administrative penalty for a violation of this subchapter will not exceed $500 a day for each violation.

Internet Posting

In accordance with HB 3229, TCEQ will maintain a publicly available list of recycling facilities complying with THSC, Chapter 376, on its website. For owners or operators of recycling facilities reporting by January 15th, the agency will compile and publish a list by March 1st of each year. After that list has been published, the agency will maintain and update the list periodically.

As part of this rulemaking, the commission is adopting revisions to 30 TAC Chapter 37, Financial Assurance, concurrently in this issue of the Texas Register.

Section by Section Discussion

Subchapter M, Requirements for Renewable Energy Component Recycling Facilities

The commission adopts new Subchapter M to implement HB 3229 and establish the reporting, financial assurance, and recordkeeping requirements for owners or operators of renewable energy components recycling facilities.

§328.401, Purpose

Adopted new §328.401 establishes the purpose of Chapter 328, Subchapter M, which is to establish procedures and requirements for recycling facilities that accept, process, and repurpose components to recover valuable materials from a wind turbine generator, a solar energy device, or a battery energy storage system. Adopted new §328.401 implements THSC, Chapter 376 as enacted by HB 3229.

§328.411, Applicability

Adopted new §328.411 describes the applicability of Chapter 328, Subchapter M and implements THSC, Chapter 376 as enacted by HB 3229.

Subchapter M, through Subsection (a), applies to a facility involved in the recycling of components to recover valuable materials from a wind turbine generator, solar energy device, or battery energy storage system.

Subsection (b) states that compliance with this subchapter does not exempt nor exclude recycling facilities from the applicability of other local, state, or federal laws or regulations. The commission adopts this warning to place owners and operators of recycling facilities on notice that multiple other regulations are applicable to these activities. HB 3229 enacts new THSC, Chapter 376 and does not repeal or amend other applicable laws that apply to recycling activities or the management of solid waste.

Components subject to adopted new Subchapter M are also subject to other local, state, or federal requirements such as municipal solid waste, industrial solid waste, or hazardous waste management regulations, including universal waste. Components subject to this subchapter must be recycled or disposed of in a manner that complies with local, state, and federal laws and regulations. Components that are received from municipal sources must be managed, recycled, and disposed of in accordance with 30 TAC Chapter 328 and 30 TAC Chapter 330. Components that are classified as hazardous waste under 30 TAC §335.504 must be managed, recycled, and disposed of in accordance with 30 TAC Chapter 335.

The owner or operator of the recycling facility must operate the facility to prevent nuisances and disturbances and comply with applicable requirements of 30 TAC §§328.3, 330.15, or 335.4. Management of wastes subject to 30 TAC Chapter 335 that are received or generated at the facility may be required to comply with the waste classification requirements of 30 TAC

Chapter 335, Subchapter R.

Recycling facilities are subject to recyclable material retention rules which prohibit speculative accumulation including 30 TAC §328.4(b) for recyclable materials derived from municipal sources, and 30 TAC §335.17(a)(8) for recyclable materials derived from industrial sources.

In response to comments, the commission adopts new §328.411(b) with changes from the proposed rule for clarity. The proposed phrase “solid waste laws” was replaced with “laws and regulations.”

§328.421, Definitions

Adopted new §328.421 adds definitions for the terms battery energy storage system, closure, operator, owner, recycling, recycling facility, solar energy device, unrecycled components, and wind turbine generator for the purpose of adopted Subchapter M. Adopted definitions for battery energy storage system, solar energy device, and wind turbine generator uses terms consistent with THSC, Chapter 376 as enacted by HB 3229 but not explicitly defined in Chapter 376.

In response to comments, the commission adopts new §328.421(1), the definition for battery energy storage system, with changes from the proposed rule to clarify that the battery energy storage system components subject to Subchapter M are expected to come from utility scale operations. The adopted definition contains language from Texas Utility Code, §303.0001, which defines a battery energy storage resource as an electrochemical device, whether connected at the transmission or distribution level, with a capacity of one megawatt hour or greater that charges from the grid or a collocated generation resource and discharges that

energy at a later time.

The definitions for closure, operator, owner, recycling, recycling facility, and unrecycled components are intended to provide context for understanding and complying with the adopted rules. The definition of closure describes the activities that must be conducted to close under Subchapter M. This definition is included to describe the activities required of the recycling facility owner or operator, typically when ceasing operations, but also in situations described in §328.441(e), to properly recycle or dispose of accepted components which results in no unrecycled components at the recycling facility or under the control of the recycling facility. In response to comments, the commission adopts new §328.421(3), which adds a definition for operator, and renumbers the remaining paragraphs to account for the added definition.

In response to comments, the commission adopts new §328.421(4), the definition for owner, with changes from the proposed rule. The adopted definition incorporates both a person who owns a recycling facility, or a person who holds title to the real property on which the recycling facility is located, including fixtures and appurtenances.

Recycling and recycling facility definitions are adopted to consistently and concisely describe what is and is not considered recycling activities and a recycling facility. Unrecycled components concisely describes components from a wind turbine generator, a solar energy device, or a battery energy storage system that have been accepted but not recycled and includes offsite components the recycling facility has assumed control of.

§328.431, Reporting Requirements

Adopted new §328.431 establishes reporting and cost estimate requirements for the owner or operator of a recycling facility that accepts, processes, and repurposes renewable energy components to recover valuable materials under adopted Subchapter M. New §328.431 implements THSC, §376.003 as enacted by HB 3229.

In response to comments, the commission adopts §328.431 with changes from the proposed rule which apply the reporting requirements to the owner or operator, rather than solely the owner. Adopted §328.431 requires the owner or operator of a recycling facility to submit an annual report to the executive director by January 15 of each year, on forms prescribed by the executive director. Paragraphs (1) - (3), which implement THSC, §376.003(a)(1) – (3), provide the required contents of the report, including an inventory of all unrecycled components accepted but not yet recycled, an estimated timeline for recycling or disposal, and a written cost estimate. The adopted rule requires regulated entities to use an agency prescribed form, in accordance with the commission's general statutory authority, for consistency in information submitted to executive director's staff and as a way to provide additional instruction and guidance to the regulated community.

Adopted new §328.431(3), which implements THSC, §376.003(a)(3), requires owners or operators to submit a written cost estimate, in current dollars, prepared and certified by an independent professional engineer, and describes the elements required for the cost estimate. The adopted rule requires the cost estimate to be in current dollars to ensure the cost estimate accurately calculates potential closure costs and financial assurance funding.

The commission adopts §328.431(3)(A) – (C) to require the cost estimate include the cost of hiring a third-party for offsite recycling or disposal of unrecycled components, including any

disposal or recycling fees by the destination facility, and loading and transportation costs. If the commission must utilize financial assurance posted by an owner or operator of a recycling facility, the commission would incur these costs by having a third-party remove and properly recycle or dispose of unrecycled components. The activities contained in the cost estimate are common items that are required in cost estimates prepared for other recycling programs, including scrap tire (30 TAC §328.71), municipal solid waste (30 TAC §328.5(c)).

The owner or operator of a recycling facility that has no inventory of unrecycled components must still submit the report to the executive director annually. New THSC, Chapter 376 requires the commission to maintain a list of recycling facilities in compliance with THSC, Chapter 376, therefore, any recycling facility (that manages renewable energy components during the year) must report their inventory, even if that inventory is zero. The agency will use these reports to establish and maintain on the agency's website a list of recycling facilities that are in compliance with THSC, Chapter 376.

§328.441, Financial Assurance Requirements

Adopted new §328.441 establishes financial assurance requirements for recycling facilities to ensure adequate funds are available for the commission to properly recycle or dispose of unrecycled components in the event that the owner or operator fails to do so. Adopted new §328.441 implements THSC, §376.003(b) and (c) as enacted by HB 3229. The commission implements the statutory financial assurance requirements by utilizing existing commission financial assurance requirements, such as the specified wording of financial assurance mechanisms, and as further established in this rulemaking in 30 TAC Chapters 37 and 328. In response to comments, §328.441 is adopted with changes from the proposed rule which apply the financial assurance requirements to the owner or operator, rather than solely the owner.

The commission adopts subsection (a) to require the owner or operator of a recycling facility that accepts, processes, and repurposes components from renewable energy systems to provide financial assurance in accordance with Chapter 37, Subchapter J. Subsection (a) directs and requires the owner or operator to comply with existing financial assurance requirements in Chapter 37. An owner or operator must comply with requirements for financial assurance and mechanisms in 30 TAC Chapter 37, Subchapters A - D (except §§37.31, 37.131, 37.161, and 37.241(b) in accordance with §37.921(a)) and submit the proper financial assurance mechanism documentation with their report and cost estimate by January 15.

Subsection (b) requires the owner or operator of the recycling facility to submit evidence of financial assurance with the first annual report in an amount equal to 100 percent of the cost estimate described under §328.431. For each subsequent one-year reporting period, the owner or operator must adjust the financial assurance to ensure it remains at or above the cost estimate for the current year. Subsection (b) implements THSC, §376.003(b).

Subsection (c) specifies that financial assurance mechanisms must comply with §37.931. The financial assurance mechanisms authorized for recycling facilities subject to Subchapter M are adopted in new §37.931(3). Acceptable forms of financial assurance are a corporate guarantee, a letter of credit, or a bond. Subsection (c) generally implements THSC, §376.003(c), except that the commission adopts corporate guarantee in §37.931, instead of a parent company guaranty found in THSC, Chapter 376. A parent company guaranty is a type of corporate guarantee. A corporate guarantee may be used to demonstrate financial assurance under existing financial assurance rules in 30 TAC Chapter 37. Under Chapter 37, a corporate guarantor must be the direct or higher-tier parent corporation or a firm with a substantial business relationship with

the owner or operator. Adopted §37.931(3) allows an owner or operator to use a corporate guarantee to demonstrate financial assurance for recycling facilities but limits the guarantor to a parent company in accordance with THSC, §376.003(c). The wording of the mechanisms must comply with 30 TAC Chapter 37, Subchapter D.

Subsection (d) requires the executive director to review and approve the cost estimate and documentation for the financial assurance mechanism to provide consistency of financial assurance procedures across programs and to ensure sufficient funding is available in the event the commission must perform closure. If deficiencies are noted in the cost estimate or financial assurance documentation, the executive director will communicate the deficiency within 30 days of receipt of the report. The owner or operator will be required to make appropriate changes to the cost estimate and/or financial assurance mechanism and resubmit the revised documents, if deficiencies are noted. The executive director will include a deadline for revisions when communicating deficiencies. When approved, the executive director will communicate approval to the owner or operator and publish the name of the recycling facility on the agency's website as required by THSC, §376.004. To help ensure proper estimation and compliant financial mechanisms are submitted, draft cost estimates and financial assurance documents may be submitted for "preliminary" review by the executive director, as long as the final documents are submitted by January 15.

When reporting for subsequent years, increases or decreases to the facility's cost estimate and financial assurance will be handled in a similar manner as described above and following 30 TAC §37.141 and §37.151, with the exception of when the owner or operator submits a decreased financial assurance mechanism. Updating financial assurance should generally be conducted with the annual report due by January 15. Updating financial assurance outside of

this cycle should only occur if the owner or operator needs to change the type of financial assurance mechanism or permanently terminate the mechanism and should not be used to lower financial assurance during the operating year.

Financial assurance must be terminated in accordance with 30 TAC §37.61. The owner or operator must submit to the executive director a written request to terminate the financial assurance mechanism for the recycling facility and must include documentation that all unrecycled components have been recycled or disposed of and no additional components will be accepted. The executive director may conduct a site inspection to confirm the recycling facility has ceased operations and properly removed unrecycled components. If no issues are noted, the executive director will release the financial assurance mechanism. The owner or operator should terminate the financial assurance only when ceasing operations with no plans on restarting. If an owner or operator has no unrecycled components during a reporting period but plans to continue recycling operations, the owner or operator may follow the procedures to decrease financial assurance instead of terminating their financial assurance.

For facilities that are required to obtain financial assurance under Subchapter M and financial assurance under another program, the owner or operator may follow the allowances in §37.52. The universal mechanism must be a corporate guarantee, a letter of credit, or a bond, as required under amended §37.931. And the existing financial assurance must cover the cost estimate activities in §328.431(a)(3). Additionally, the owner or operator is still required to submit the annual report, including the cost estimate, and financial assurance documentation, to demonstrate adequate coverage under Subchapter M.

Subsection (e) identifies the circumstances under which the owner or operator of a recycling

facility subject to Subchapter M is required to perform closure. The purpose of financial assurance can only be implemented by making the commission the beneficiary of the financial assurance and allowing the commission to call on the financial assurance. Therefore, the commission adopts the circumstances under which an owner or operator must perform closure and, if not properly conducted, the commission is authorized to call on the financial assurance in subsection (e).

The owner or operator's failure to perform closure allows the executive director to call on the financial assurance under §37.101. When an owner or operator has received a written violation from the commission, the owner or operator will have an opportunity to address the violation(s) or receive an order from the commission. If the owner or operator fails to address the violation(s), the owner or operator will be required to perform closure as described in Subchapter M. The violation(s) include: 1) when unrecycled components have been speculatively accumulated; 2) when unrecycled components cause the discharge or imminent threat of discharge of contaminants into or adjacent to the waters in the state; 3) when unrecycled components create or maintain a nuisance; or 4) when unrecycled components endanger the public health and welfare. The owner or operator must also perform closure when directed by the executive director. For the purpose of Subchapter M, the term contaminant is consistent with the definition for "contaminant" in THSC, §361.601. Speculative accumulation occurs when unrecycled components accumulate and have no feasible means of being recycled and when at least 75% by weight or volume of the accumulated unrecycled components remain unrecycled for the one-year reporting period.

Subsection (f) authorizes the executive director to receive and spend funds as the beneficiary of the financial assurance provided in accordance with this subchapter. THSC, Chapter 376

requires the owner of the recycling facility to submit evidence of financial assurance to the agency. The commission adopts subsection (f) to authorize the executive director to receive and spend funds as a beneficiary of the financial assurance required by Subchapter M in accordance with the commission's general statutory authority.

§328.451, Recordkeeping Requirements

In response to comments, §328.451 is adopted with changes from the proposed rule which apply the recordkeeping requirements to the owner or operator, rather than solely the owner. Adopted new §328.451 establishes recordkeeping requirements for owners or operators of recycling facilities subject to Chapter 328, Subchapter M to ensure recycling facilities maintain accurate and verifiable documentation of recycling and disposal activities. Under the adopted rule, the owner or operator of a recycling facility is required to maintain records for a minimum of three years in addition to any local, state, or federal recordkeeping requirements. Examples of records include manifests, bills of lading, quantities of components recycled onsite or offsite, waste disposal records, or other documentation used in annual reports submitted to the executive director.

Final Regulatory Impact Determination

The commission reviewed the adopted rulemaking action in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the action is not subject to Texas Government Code, §2001.0225 because it does not meet the definition of a "Major environmental rule" as defined in that statute. A "Major environmental rule" is a rule the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure, and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and

safety of the state or a sector of the state. The adopted new rules implement HB 3229 from the 89th Texas Legislature, Regular Session, 2025. HB 3229 requires the owner of a recycling facility that accepts, processes, and repurposes components from a wind turbine generator, a solar energy device, or a battery energy storage system to submit a report to the agency and provide financial assurance. The adopted rules implement HB 3229 by establishing the requirements for the submitted report and financial assurance. The reporting requirement and financial assurance requirement would apply to the owner of a recycling facility under THSC, Chapter 376 in the absence of these rules. Because the adopted rules implement reporting and financial assurance requirements, the adopted rules do not change any existing requirements that protect the environment or reduce risks to human health from environmental exposure, nor do the adopted rules affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state.

As defined in the Texas Government Code, §2001.0225 only applies to a major environmental rule, the result of which is to: exceed a standard set by federal law, unless the rule is specifically required by state law; exceed an express requirement of state law, unless the rule is specifically required by federal law; exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or adopt a rule solely under the general authority of the commission. The adopted rules do not exceed a standard set by federal law. The adopted amendments do not exceed an express requirement of state law or a requirement of a delegation agreement. These rules were not developed solely under the general powers of the agency but are authorized by specific sections of the THSC and TWC, that are cited in the statutory authority section of this preamble. Therefore, this rulemaking is not subject to the

regulatory analysis provisions of Texas Government Code, §2001.0225(b).

The commission invited public comment regarding the Draft Regulatory Impact Analysis Determination during the public comment period. No comments were received regarding the regulatory impact analysis determination.

Takings Impact Assessment

The commission evaluated the adopted rulemaking and performed an analysis of whether Texas Government Code, Chapter 2007, is applicable. The adopted new rules implement HB 3229 from the 89th Texas Legislature, Regular Session, 2025. The adopted new rules in Chapter 328 do not affect private property in a manner that restricts or limits an owner's right to the property that would otherwise exist in the absence of the adopted rules. The adopted rules in Chapter 328 establish reporting and financial assurance requirements for the owner of a recycling facility that accepts, processes, and repurposes components from a wind turbine generator, a solar energy device, or a battery energy storage system. Consequently, this rulemaking action does not meet the definition of a taking under Texas Government Code, §2007.002(5). Therefore, this rulemaking action will not constitute a taking under Texas Government Code, Chapter 2007.

Consistency with the Coastal Management Program

The commission reviewed the adopted rules and found that they are neither identified in Coastal Coordination Act Implementation Rules, 31 TAC §29.11(b)(2) or (4), nor will they affect any action/authorization identified in Coastal Coordination Act Implementation Rules, 31 TAC §29.11(a)(6). Therefore, the adopted rules are not subject to the Texas Coastal Management Program.

The commission invited public comment regarding the consistency with the coastal management program (CMP) during the public comment period. There were no comments received regarding the CMP.

Public Comment

The commission offered public hearings on April 23, 2026 and April 27, 2026. The comment period closed on April 27, 2026. The commission received comments from Harris County Pollution Control Services (HCPCS), one individual (IND), and the Lone Star Chapter of the Sierra Club (LSCSC). One commenter was in support of the rules; no commenters were against the rules; one commenter requested clarification of the rules; and two commenters suggested changes to the proposed rules.

Response to Comment

Comment

LSCSC commented in support of the proposed rules and the reporting deadline of January 15th. LSCSC agrees with the financial assurance criteria, including the contents of the cost estimate, the requirements for financial assurance to be maintained in current dollars, and that TCEQ can use the financial assurance as needed.

Response

The commission acknowledges the support. No changes have been made in response to this comment.

Comment

HCPCS requested the rule language in 30 TAC §328.411(b) be expanded to clarify that compliance with the proposed rules does not exempt nor exclude recycling facilities from other local, state, or federal rules, regulations, or laws, rather than specifying solid waste laws.

Response

In response to this comment, the commission revised adopted rule language in §328.411(b) by replacing the phrase "solid waste laws" with "laws and regulations" for clarity.

Comment

IND requested clarification of what qualifies as a "Battery Energy Storage System" and whether all battery handlers of any kind would be subject to HB 3229 and the rulemaking.

Response

In response to this comment, the commission added rule language to the adopted definition for "Battery energy storage system" in 30 TAC §328.421 to more clearly describe the devices subject to this rulemaking, which are those from utility scale operations.

Comment

HCPCS requested TCEQ revise the proposed definition for owner in 30 TAC §328.421(3) to identify the owner as the facility owner instead of the property owner. HCPCS also requested TCEQ revise the rules to require the facility owner and/or facility operator to comply with the reporting and financial assurance requirements.

Response

In response to this comment, the commission revised adopted §328.421 to include the

recycling facility owner in the definition for owner and a definition for operator, and adopted §§328.431, 328.441, and 328.451 to allow the owner or operator to comply with the requirements of the new subchapter.

Comment

HCPCS requested TCEQ revise the proposed definition for closure in 30 TAC §328.421(2) to read "The act of collecting all components accepted by the recycling facility, and properly recycling or disposing of the components, which results in taking the facility out of service."

Response

THSC, Chapter 376 does not authorize the commission to take a recycling facility out of service. Further, a recycling facility is not required to be taken out of service for TCEQ to draw on the financial assurance and conduct closure activities. No changes have been made in response to this comment.

Comment

HCPCS requested TCEQ revise 30 TAC §328.431(3) and §328.441 to include remediation and decontamination in the cost estimate and financial assurance. HCPCS also requested TCEQ consider transportation costs for rural areas when reviewing cost estimate.

Response

While recycling facilities may be subject to these costs under other solid waste financial assurance programs, THSC, Chapter 376 does not authorize the commission to account for remediation and decontamination, only for "recycling or disposing of the (unrecycled) components." In accordance with this statutory provision, the commission adopts §328.431(3)(C) requiring the recycling facility to include "the cost for transporting

unrecycled components offsite to an authorized recycling or disposal facility" in the cost estimate and will consider these costs in the review of the cost estimate. No changes have been made in response to this comment.

Comment

HCPCS requested TCEQ provide staff training and to anticipate increased delays in permit reviews and inspections related to the location of wind generators in primarily rural areas.

Response

It is not clear what staff training was requested by the commenter. The commission is required to fully implement passed legislation and ensure that staff involved in the regulation of recycling facilities under THSC, Chapter 376 and this subchapter are equipped with the skills and resources to do so. No changes have been made in response to this comment.

Comment

HCPCS requested TCEQ expand the recordkeeping requirements in §328.451 to include standards similar to those required to be kept for scrap tire storage or transfer stations, such as training and inspection logs, site operating and fire plans, and location of the records.

Response

The commission believes the records required under proposed §328.451 will be adequate to determine compliance with THSC, Chapter 376 and this subchapter. Additional recordkeeping requirements under other agency programs will continue to apply to recycling facilities. No changes have been made in response to this comment.

Comment

HCPCS requested TCEQ implement a fee program to create a fund for the cleanup of future abandoned or unauthorized renewable energy recycling facilities.

Response

THSC, Chapter 376 authorizes financial assurance for recycling facilities, but does not authorize the commission to collect a fee. No changes have been made in response to this comment.

Comment

LSCSC suggested TCEQ incorporate the requirement for TCEQ to maintain the list of compliant recycling facilities on the commission's website and who reports into the rules.

Response

The requirement for the commission to post the list of facilities complying with the statute is contained in THSC, §376.004, and is wholly applicable to the commission. Additionally, it is not necessary to duplicate the statutory requirement without clarification or additions. No changes to rule made in response to this comment.

SUBCHAPTER M: REQUIREMENTS FOR RENEWABLE ENERGY COMPONENT RECYCLING FACILITIES

§§328.401, 328.411, 328.421, 328.431, 328.441, and 328.451

Statutory Authority

The new rules are adopted under Texas Water Code (TWC), §5.013, which establishes the general jurisdiction of the commission; §5.102, which provides the commission with the authority to carry out its duties and general powers under its jurisdictional authority as provided by TWC; §5.103, which requires the commission to adopt any rule necessary to carry out its powers and duties under the TWC and other laws of the state; Texas Health and Safety Code (THSC) §361.011, which confers the commission authority for the management of municipal solid waste; and THSC, §361.017, which confers the commission responsibility for the management of industrial solid waste and hazardous municipal waste and provides authority to control all aspects of the management of industrial solid waste and municipal hazardous waste by all practical and economically feasible methods consistent with its powers and duties under THSC, Chapter 361 and other law, and THSC, Chapter 376 which establishes requirements for renewable energy component recycling facilities.

The adopted rules implement House Bill (HB) 3229, 89th Texas Legislature, Regular Session, 2025, and THSC, Chapters 361 and 376.

§328.401. Purpose.

The purpose of the rules in this subchapter is to establish procedures and requirements for recycling facilities that accept, process, and repurpose components

to recover valuable materials from a wind turbine generator, a solar energy device, or a battery energy storage system.

§328.411. Applicability.

(a) This subchapter is applicable to a recycling facility that accepts, processes, and repurposes components to recover valuable materials from a wind turbine generator, a solar energy device, or a battery energy storage system.

(b) Compliance with provisions of this subchapter does not exempt nor exclude the applicability of other local, state or federal laws and regulations .

§328.421. Definitions.

The following terms, when used in this subchapter, have the following meanings.

(1) Battery energy storage system--A battery energy storage system, including battery cells, racks, containers, inverters, battery management systems, cooling and fire suppression systems, and cables, is an electrochemical device, whether connected at the transmission or distribution level, with a capacity of 1 megawatt hour

or greater, that charges from the grid or a co-located generation resource and discharges that energy at a later time.

(2) Closure--The act, outside of daily operations, of collecting all components accepted from a wind turbine generator, a solar energy device, or a battery energy storage system, including any components the recycling facility has taken title to or assumed control of regardless of whether the components are located at the recycling facility, and properly recycling or disposing of the components.

(3) Operator--A person responsible for the overall operation of a recycling facility.

(4) Owner--A person who owns a recycling facility, or a person who has title to the real property on which a recycling facility is located.

(5) Recycling--A process by which components of a wind turbine generator, solar energy device, or battery energy storage system, that have served their intended use or are scrapped, discarded, used, surplus, or obsolete are collected, separated, or processed and returned to use in the form of raw materials or feedstocks used in the manufacture of new products. A use of components that constitutes disposal or that releases contaminants into the environment is not recycling under this subchapter.

(6) Recycling facility--All contiguous land and structures, other appurtenances, and improvements on the land used for the recycling of components from a wind turbine generator, a solar energy device, or a battery energy storage system. The term includes a facility that has accepted or plans to accept unrecycled components for recycling and has not yet ceased operations.

(7) Solar energy device--A solar energy device, as defined by Utilities Code, §185.001, including solar modules, junction boxes, transformers, inverters, racks or trackers, and cables.

(8) Unrecycled components--Components from a wind turbine generator, a solar energy device, or a battery energy storage system that are accepted by the recycling facility for recycling that have not yet been recycled or used as a product. The term includes any components the recycling facility has taken title to or assumed control of regardless of whether the components are located at the recycling facility.

(9) Wind turbine generator--A wind turbine generator, including turbine blades, nacelles, nacelle covers, towers, drivetrains, generators, magnets, power electronics, and cables.

§328.431. Reporting Requirements.

Using forms prescribed by the executive director, the owner or operator of a

recycling facility that has accepted unrecycled components for recycling shall submit a report to the executive director no later than January 15 of each year that includes:

(1) an inventory of all unrecycled components;

(2) an estimated timeline for recycling or disposing of the unrecycled components; and

(3) a written cost estimate for hiring a third-party to recycle or dispose of the unrecycled components, prepared by an independent, third-party Texas licensed professional engineer, in current dollars, that includes:

(A) the cost for offsite recycling or disposal of the inventory of unrecycled components, including any fees charged by the destination facility;

(B) the cost for loading unrecycled components into appropriate vehicles for offsite transportation; and

(C) the cost for transporting unrecycled components offsite to an authorized recycling or disposal facility.

§328.441. Financial Assurance Requirements.

(a) Financial assurance required for closure of the recycling facility shall be provided by the owner or operator of the recycling facility in accordance with applicable requirements of Chapter 37, Subchapter J of this title (relating to Financial Assurance for Recycling Facilities).

(b) The owner or operator of the recycling facility shall:

(1) submit with the recycling facility's first report required by §328.431 of this title (relating to Reporting Requirements), evidence of financial assurance in an amount equal to 100 percent of the cost estimate described under §328.431 of this title; and

(2) submit with each subsequent report any additional financial assurance necessary to ensure that the amount of financial assurance the owner or operator has on file with the commission for the recycling facility is at least equal to 100 percent of the cost estimate under §328.431 of this title in the subsequent report.

(c) The financial assurance mechanism used to secure financial assurance in accordance with this section must comply with §37.931 of this title (relating to Financial Assurance Mechanisms).

(d) The executive director will review and approve the cost estimate and financial assurance mechanism provided by the owner or operator. If revisions are

required for the executive director to approve, the owner or operator must submit an appropriately revised cost estimate or financial assurance mechanism within timeframes specified by the executive director.

(e) Unless subject to a contrary provision of an order of the commission or an order of a court of competent jurisdiction, the owner or operator of a recycling facility must perform closure:

(1) when unrecycled components have been speculatively accumulated as established under §328.4 (relating to Limitations on Storage of Recyclable Materials) or §335.17(a)(8) (relating to Special Definitions for Recyclable Materials and Nonhazardous Recyclable Materials);

(2) if unrecycled components cause the discharge or imminent threat of discharge of a contaminant into or adjacent to waters in the state without specific authorization from the commission;

(3) if unrecycled components create or maintain a nuisance;

(4) if unrecycled components endanger the public health and welfare; or

(5) if directed to perform closure by the executive director.

(f) The executive director is authorized to receive and spend funds as a beneficiary of financial assurance established in this subchapter.

§328.451. Recordkeeping Requirements.

In addition to other applicable recordkeeping requirements under local, state, or federal law, the owner or operator of a recycling facility must maintain records for activities conducted under this subchapter for a minimum of three years including but not limited to manifests, bills of lading, records of quantities of components recycled onsite or offsite, records of waste disposal, and any documentation used to establish the information reported to the executive director under §328.431 (relating to Reporting Requirements). The owner or operator of the recycling facility must furnish to the executive director, upon request and within a reasonable time, records maintained under this section.