



PA 21-120—sHB 6646

Planning and Development Committee

AN ACT CONCERNING CRUMBLING CONCRETE FOUNDATIONS

SUMMARY: This act makes various changes in state law concerning “crumbling foundations.” (Generally, this means concrete foundations that are failing or deteriorating due to the presence of pyrrhotite.)

It makes the Connecticut Foundation Solutions Indemnity Company (CFSIC) permanent by eliminating the prior law’s June 30, 2022, termination date and adds two gubernatorial appointees to its board of directors (§§ 2 & 3). The act also requires CFSIC to study the extent of pyrrhotite-related foundation damage in nonresidential buildings and remits up to \$175,000 from the Healthy Homes Fund for the study’s expenses (§§ 4 & 5). (CFSIC is the statutorily created captive insurance company that distributes money to homeowners with crumbling foundations.)

The act requires concrete aggregate quarry operators to test and report on their aggregate’s total sulfur content (“total S”). It imposes restrictions on the use of aggregate that has a relatively high total S and, in certain circumstances, requires additional testing to identify the presence of pyrrhotite. The act authorizes the Department of Energy and Environmental Protection (DEEP) commissioner to adopt regulations on aggregate testing and impose restrictions on aggregate that contains pyrrhotite (§ 9).

The act also:

1. eliminates the five-year cap on reduced assessments for properties made with defective concrete (§ 1) and
2. requires concrete aggregate quarries to (a) submit an operations plan to the state geologist and DEEP commissioner annually and (b) prepare a geological source report (GSR) every four years and submit it to the same entities (§ 8).

Additionally, the act permanently exempts certain executive branch agency records related to faulty or failing concrete foundations in residential buildings from disclosure under the Freedom of Information Act (FOIA) and applies the exemption to the same types of records held by public higher education institutions (§ 6). The act requires executive branch agencies to keep information about claims of faulty or failing foundations confidential in perpetuity (§ 7).

EFFECTIVE DATE: July 1, 2021, except the provision on assessments (§ 1) is effective upon passage.

§ 1 — REDUCED ASSESSMENT FOR PROPERTIES WITH DEFECTIVE FOUNDATIONS

By law, municipal assessors or their staff must inspect and reassess residential

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properties with foundations made from defective concrete at the property owner's request. Under prior law, the adjusted assessment was valid for five assessment years unless the foundation is repaired or replaced sooner. The act eliminates the five-year maximum, thus allowing property owners to benefit from a reduced assessment until their foundation is repaired or replaced. The property's assessment must be updated with each revaluation and reflect any diminished value.

§ 2 — CFSIC BOARD OF DIRECTORS

The act requires the governor to appoint two members to CFSIC's volunteer board of directors, one of whom must be a nonvoting, ex-officio member. (PA 21-2, June Special Session (JSS), § 58, repeals the requirement that one appointee be an ex-officio member and replaces it with a provision specifying that the nonvoting appointee is considered an ex-officio member under CFSIC's adopted bylaws.)

By law, CFSIC's board of directors includes four legislatively appointed nonvoting ex-officio members, as well as several members with experience related to various aspects of crumbling concrete foundations, including a real estate broker or agent; a municipal chief executive; insurance and banking industry representatives; and the executive directors of the Capitol Region and Northeastern Councils of Governments.

§§ 4 & 5 — STUDY OF NONRESIDENTIAL CRUMBLING CONCRETE DAMAGE

By January 1, 2023, the act requires CFSIC to submit a report to the Insurance and Real Estate and Planning and Development committees analyzing the extent of pyrrhotite-related concrete foundation damage in nonresidential buildings.

The act also requires the Department of Housing to remit up to \$175,000 from surcharge remittances transferred to the Healthy Homes Fund during the 2021 calendar year to CFSIC for research, development, and administrative expenses related to the report described above. (The Healthy Homes Fund includes revenue from an annual \$12 surcharge that existing law imposes on the named insured under certain homeowners insurance policies.)

However, the act specifies that this amount must not be used in calculating the total funds allocated or made available to CFSIC for administrative or operational expenses. (By law, CFSIC may not spend more than 10% of its annual allocations on administrative or operational costs (CGS § 38a-91vv(c)).)

§ 6 — DISCLOSURE UNDER FOIA

Existing law exempts from disclosure under FOIA (1) documents executive branch agencies have on claims of faulty or failing concrete foundations in residential buildings by the buildings' owners and (2) associated agency-prepared documents. Under prior law, the disclosure protection lasted until the later of May

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25, 2023, or seven years after the agency received the documents. The act makes the disclosure exemption permanent.

The act also makes minor changes that specify which records are covered. Under the act, the executive branch agency protection applies to (1) any records the agencies maintain or keep on file related to claims of, or testing for, faulty or failing residential concrete foundations, rather than only those related to owners' claims, and (2) both documents and materials the agencies prepare related to the records.

Lastly, the act extends disclosure protection to records public higher education institutions maintain or keep on file, or documents or materials the institutions prepare, concerning claims of and testing for faulty or failing concrete foundations.

§ 7 — CONFIDENTIALLY OF INFORMATION

Prior law generally required executive branch agencies to keep documentation they receive or obtain related to owners' claims of faulty or failing residential concrete foundations and related agency-prepared materials confidential for at least seven years from the date of receipt. The act instead requires this information to be kept confidential permanently.

§ 8 — GSR AND OPERATIONS PLAN REQUIREMENT

Geological Source Report (GSR)

By January 1, 2022, the act requires the operator of each quarry established on or before July 1, 2021, that produces concrete aggregate to prepare a GSR and submit it to the state geologist and DEEP commissioner. Similarly, before using or selling concrete aggregate, the operator of a new quarry must prepare and submit a GSR.

Under the act, each concrete aggregate quarry must update and submit its GSR quadrennially.

GSR Requirements

The GSR must be prepared as the commissioner requires and must include:

1. a description of the (a) operator's mining, processing, storage, and quality control methods; (b) products the quarry will produce; and (c) characteristics of the aggregate to be excavated, prepared by a qualified geologist;
2. the results of an inspection of face material and geologic log analysis, completed by a qualified geologist; and
3. core sample analyses completed by a qualified geologist, unless the quarry is active and the commissioner determines the quarry's performance history is satisfactory (PA 21-2, JSS, § 59, requires these analyses to be representative core sample analyses evaluated through petrography).

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A “qualified geologist” is a geologist certified by the American Institute of Professional Geologists, licensed by the National Association of State Boards of Geology, or certified or licensed by another organization deemed suitable by the state geologist.

Operations Plan

By January 1, 2022, and annually thereafter, the act requires concrete aggregate quarry operators to provide the quarry’s operations plan to the state geologist and DEEP commissioner.

§ 9 — ANNUAL AGGREGATE TESTING

Beginning July 1, 2022, and at least annually thereafter, the operator of each quarry that sells or provides aggregate intended for use in concrete must give the DEEP commissioner and the state geologist a written report containing the results of a third-party test of the aggregate’s sulfur content (“total S”) and further testing for pyrrhotite, if applicable. The act exempts quarry operators from the annual requirement if tests show their aggregate has a low total S. (Generally, aggregate with a high total S is not suitable for structural concrete. Total S is a conservative estimate of the maximum pyrrhotite concentration, since minerals other than pyrrhotite also contain sulfur.)

Under the act, the test must be conducted by a third-party certified or accredited to conduct testing in accordance with American Society for Testing Materials standard C33/C33M, Standard Specification for Concrete Aggregates. (PA 21-2, JSS, § 60, changes the required testing standard to the society’s standard E1621, Standard Guide for Elemental Analysis by Wavelength Dispersive X-ray Fluorescence Spectrometry.) The certification or accreditation must be provided by the International Organization for Standardization, United States Army Corps of Engineers, American Association of State Highway and Transportation Officials, International Accreditation Service, or a similar organization.

The act authorizes the DEEP commissioner to adopt regulations to implement the act’s aggregate testing provisions. If adopted, the regulations must define the following terms: “rapid total sulfur test,” “x-ray fluorescence analysis,” “purge and trap gas chromatography analysis,” “analysis by combustion furnace,” “x-ray diffraction,” “magnetic susceptibility analysis,” “petrographic analysis,” and “mortar bar expansion test.” (PA 21-2, JSS, § 60, eliminates the requirement that any adopted regulations define “mortar bar expansion test.”)

Total S Test

Each test must include performing a rapid total S test on a 10-pound aggregate sample using:

1. x-ray fluorescence analysis,
2. purge and trap gas chromatography analysis,
3. analysis by combustion furnace, or

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4. other technology deemed at least as accurate by the state geologist.

The act specifies that representative samples must be (1) collected and managed in accordance with American Society for Testing and Materials standard D75/D75M, Standard Practice for Sampling Aggregates, and (2) reduced to a size appropriate for laboratory testing and pulverized for analysis.

Results. If testing shows the sample's total S by mass is at least 1%, the operator cannot sell or otherwise provide the aggregate for use in concrete.

If testing shows the sample's total S by mass is less than 0.1%, a quarry operator (1) may sell or provide the aggregate for use in concrete for four years, beginning on the date of receipt of the test results; and (2) does not need to submit test results to the DEEP commissioner and state geologist during that period.

If testing shows the sample's total S falls in between these thresholds, then further testing is required, as described below.

Further Testing for Pyrrhotite

Required Testing. If the total S of the sample is 0.1% or more, but less than 1% (by mass), then the sample must be further tested for the presence and relative abundance (concentration) of pyrrhotite using x-ray diffraction, magnetic susceptibility, or another type of petrographic analysis.

If that testing does not reveal the presence of pyrrhotite, then the aggregate may be used in concrete for one year, beginning on the date the results are received.

If the sample contains pyrrhotite, a petrographic analysis must be conducted to determine whether and how the aggregate can be used. The analysis must be based on American Society for Testing and Materials standards C295 (Standard Guide for Petrographic Examination of Aggregates for Concrete) and C294 (Standard Descriptive Nomenclature for Constituents of Concrete Aggregates).

Additional Testing and Restrictions. If testing shows that pyrrhotite is present and the total S by mass is 0.1% or more but less than 1%, then DEEP's commissioner, in consultation with the state geologist, may do the following:

1. require the quarry operator to conduct additional testing, including a mortar bar expansion test pursuant to American Society for Testing and Materials standards C1293 (Standard Test Method for Determination of Length Change of Concrete Due to Alkali-Silica Reaction) or C227 (Standard Test Method for Potential Alkali Reactivity of Cement-Aggregate Combinations); and
2. impose restrictions on selling or using the aggregate for concrete.

(PA 21-2, JSS, § 60, eliminates the provision in the act specifying the tests the commissioner may require and instead generally authorizes the commissioner to require additional petrographic and materials testing.)