



**APPENDIX C**  
**CODE CHANGE PROPOSAL**  
**NORTH CAROLINA**  
**BUILDING CODE COUNCIL**

325 North Salisbury Street, Room 5\_44  
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\_\_\_\_\_ Petition for Rule Making Item Number \_\_\_\_\_  
 Granted by BCC \_\_\_\_\_ Adopted by BCC \_\_\_\_\_ Approved by RRC \_\_\_\_\_  
 Denied by BCC \_\_\_\_\_ Disapproved by BCC \_\_\_\_\_ Objection by RRC \_\_\_\_\_

PROPOSER: Kevin Brinkman \_\_\_\_\_ PHONE: (309) 208 -0812  
 REPRESENTING: National Elevator Industry, Inc. (NEII) \_\_\_\_\_  
 ADDRESS: 5537 SW Urish Rd \_\_\_\_\_  
 CITY: Topeka \_\_\_\_\_ STATE: KS \_\_\_\_\_ ZIP: 66610 \_\_\_\_\_  
 E-MAIL: klbrinkman@neii.org \_\_\_\_\_ FAX: ( ) \_\_\_\_\_

North Carolina State Building Code, Volume: Plumbing Code \_\_\_\_\_ - Section 1003.4

**CHECK ONE:**  Revise section to read as follows:  Delete section and substitute the following:  
 Add new section to read as follows:  Delete section without substitution:

~~LINE THROUGH MATERIAL TO BE DELETED~~                      UNDERLINE MATERIAL TO BE ADDED

Please type. Continue proposal or reason on plain paper attached to this form. See reverse side for instructions.

Please see attached for proposal and reason.

Will this proposal change the cost of construction?    Decrease     Increase     No   
 Will this proposal increase to the cost of a dwelling by \$80 or more?    Yes     No   
 Will this proposal affect the Local or State funds?    Local     State     No   
 Will this proposal cause a substantial economic impact (≥\$1,000,000)?    Yes     No

- Non-Substantial – Provide an economic analysis including benefit/cost estimates.
- Substantial – The economic analysis must also include 2-alternatives, time value of money and risk analysis.
- Pursuant to §143-138(a1)(2) a cost-benefit analysis is required for all proposed amendments to the NC Energy Conservation Code. The Building Code Council shall also require same for the NC Residential Code, Chapter 11.

**REASON:**

Please see attached for proposal and reason.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_ BCC CODE CHANGES  
FORM 11/26/19

# INSTRUCTIONS

**Each proposed Code change request shall comply with the following policies:**

**Rule 1:** The Original and twenty-two (22) copies of the proposed Petition for Rule-Making along with supporting documentation shall be filed with the Building Code Council Secretary. Submit one (1) electronic copy via email.

**Rule 2:** The filing shall be received by the first day of the month prior to the quarterly scheduled meeting date. Example: A December meeting date will require filing by November 1 prior to the meeting.

**Rule 3:** Each request shall be typewritten on this form and shall contain the following:

- (1) The proposed rule change must be set forth in full and contain explicit reference to the affected section or sections of the Code.
- (2) The request shall state the reasons for the proposed rule change with supporting documentation.
- (3) The proposed rule change shall comply with the standards set forth in GS 143-138(c) and reference to the particular standards shall be set forth in the request for the amendment.
- (4) The proposed rule change shall contain an economic impact analysis as required by GS 143-138(a).
- (5) A proposed rule change to the NC Energy Conservation Code shall have an accompanying cost-benefit analysis as required by GS 143-138(a1)(2).

**Rule 4:** When a request is improperly filed or not in accordance with all the rules listed above, the BCC Secretary shall reject the submittal and notify the applicant of the proper procedure to follow.

**Rule 5:** Upon the proper filing of a request, the BCC Secretary shall forward one copy of said request to each council member prior to the scheduled meeting date. Persons filing proposed petitions are hereby notified of the place and time of the scheduled hearings. The BCC Secretary shall cause to be published the notice of public hearing as specified in GS 143-138(a).

**Rule 6:** The Council shall either Grant or Deny the proposed Petition for Rulemaking at the meeting following receipt of the proposed rule change. The Council will take no further action on items that are Denied. Granted items may be referred to Committee for review.

**Rule 7:** The Council will hold a public hearing on Granted items at the next quarterly scheduled meeting. The Council will take final action on Granted items at the next quarterly scheduled meeting after the public hearing.

## Timeline Example

<b>Petition received:</b>	<b>February 1</b>
<b>Petition Granted:</b>	<b>March BCC meeting</b>
<b>Notice of Hearing published:</b>	<b>April NC Register</b>
<b>Committee review:</b>	<b>May - June</b>
<b>Hearing held:</b>	<b>June BCC meeting</b>
<b>Final Adoption:</b>	<b>September BCC meeting</b>
<b>Rules Review Meeting:</b>	<b>November RRC meeting</b>
<b>Approved:</b>	<b>December 1</b>

**NEII proposal for the NC Plumbing Code, Requirement 1003.4. Modify as follows:**

**1003.4 Oil separators required.**

At repair garages where floor or trench drains are provided, car washing facilities, factories where oily and flammable liquid wastes are produced and hydraulic elevator pits, oil separators shall be installed into which oil-bearing, grease-bearing or flammable wastes shall be discharged before emptying into the building drainage system or other point of disposal.

**Exception:** An oil separator is not required in hydraulic elevator pits where an *approved* alarm system is installed. ~~Elevator sump pits with oil minder pumps shall discharge the oil into a temporary storage tank.~~ Such alarm systems shall not terminate the operation of pumps utilized to maintain emergency operation of the elevator by fire fighters.

...

**Reason:** The proposed change would align the North Carolina Plumbing Code requirement with the 2018 International Plumbing Code and eliminate an issue being created by one local interpretation of the sentence proposed for deletion.

NEII understands that one jurisdiction in the state is interpreting this revision to mean only an “oil minder pump” can serve as the basis to qualify for the exception to exclude the specified oil separator in the plumbing system serving the hydraulic elevator pit. Further, this jurisdiction is requiring that the temporary storage tank for the oil minder pump have a capacity that is equal to twice the capacity of the hydraulic elevator system. It is not clear why the jurisdiction added this excessive temporary storage tank capacity requirement since it is not included in the NCPC.

ASME A17.1/CSA B44 *Safety Code for Elevators and Escalators* (“A17.1”) has requirements to ensure that no oil accumulates in the hydraulic elevator pit. The oil that leaves the hydraulic system during normal use takes place at the head of the hydraulic jack(s). A17.1 Requirements 3.18.3.7, for design, and 8.6.5.5.2 and 8.6.5.7, for maintenance of hydraulic elevators, provide for collection and periodic removal of this oil either by disposal or returning it to the system. This requirement also includes other leakage sources in addition to the cylinder(s) and requires a maintenance record to be kept in the machine room to account for all oil returned to or removed from the system. Even when considering a system failure, the amount of oil that could possibly accumulate in the hydraulic pit is only a fraction of the system’s capacity. A17.1 Requirement 3.26.9 states that the elevator must shut down if low oil is detected; therefore, it would not be possible to evacuate the complete volume of oil from the hydraulic system. See attached background information also.

NEII does not believe it was the intent of the North Carolina revision to eliminate the option to use an approved alarm system in lieu of the oil separator. NEII also believes the capacity requirement for the storage tank being imposed by one jurisdiction is excessive and has not been justified. NEII would like to request that North Carolina eliminate the deviation to Requirement 1003.4 and revert to the language in the 2018 IPC.

## Background:

### From the 2018 International Plumbing Code:

**“1003.4 Oil separators required.** At repair garages, where floors are trenched drain are provided, car washing facilities, factories where oily and flammable liquid wastes are produced and hydraulic elevator pits, separators shall be installed into which all oil-bearing, grease-bearing or flammable wastes shall be discharged before emptying into the building drainage system or other point of disposal.

Exception: An oil separator is not required in hydraulic elevator pits where an approved alarm system is installed. Such alarms shall not terminate the operation of pumps utilized to maintain emergency operation of the elevator by fire fighters.”

### Modifications in the current North Carolina Plumbing Code:

**“1003.4 Oil separators required.** At repair garages where floor or trench drains are provided, car washing facilities, factories where oily and flammable liquid wastes are produced ~~and hydraulic elevator pits,~~ oil separators shall be installed into which oil-bearing, grease-bearing or flammable wastes shall be discharged before emptying into the building drainage system or other point of disposal. Exception: An oil separator is not required in hydraulic elevator pits where an approved alarm system is installed. [Elevator sump pits with oil minder pumps shall discharge the oil into a temporary storage tank.](#) Such alarm systems shall not terminate the operation of pumps utilized to maintain emergency operation of the elevator by fire fighters. “

### Referenced Sections from ASME A17.1/CSA B44:

**“3.18.3.7 Collection of Oil Leakage.** Means shall be provided to collect for removal any oil leakage from the cylinder head seals or packing gland. The amount collected before removal shall not exceed 19 L (5 gal).”

**“8.6.5.5.2 Collection of Oil Leakage.** Oil leakage collected from each cylinder head seal or packing gland shall not exceed 19 L (5 gal) before removal. The container shall be covered and shall not be permitted to overflow.”

**“8.6.5.7 Record of Oil Usage.** For systems where part of the cylinder and/or piping is not exposed for visible examination, a written record shall be kept of the quantity of hydraulic fluid added to the system and emptied from leakage collection containers and pans. The written record shall be kept in the machine room. When the quantity of hydraulic fluid loss cannot be accounted for, the tests specified in 8.6.5.14.1 and 8.6.5.14.2 shall be made.”

### “3.26.9 Low Oil Protection

**3.26.9.1** A means shall be provided to render an elevator on normal operation inoperative if for any reason the liquid level in the tank falls below the permissible minimum suitable means include, but are not limited to, the following:

- (a) direct sensing of the liquid level
- (b) a pump-run timer

Actuation of the means shall automatically bring the car down to the lowest landing, when the doors are closed.”

**“8.6.4.7 Cleaning of Hoistways and Pits 8.6.4.7.1** Hoistways and pits shall be kept free of dirt and rubbish and shall not be used for storage purposes.

...

**8.6.4.7.4** Water and oil shall not be allowed to accumulate on pit floors.”