

SUBCHAPTER 05C - GEOPHYSICAL EXPLORATION

15A NCAC 05C .0101 DEFINITIONS

- (a) "Department" means the North Carolina Department of Environmental Quality in Raleigh, North Carolina.
- (b) "Explorations" means geological, geophysical, and other surveys and investigations, including seismic methods for the discovery and location of oil, gas, or other mineral prospects.
- (c) "Party chief" means the leader of the on-site crew conducting the exploration work for a company that is permitted to conduct such work under this Subchapter.
- (d) "Secretary" means Secretary of the Department of Environmental Quality.
- (e) "Seismic agent" means a North Carolina Department of Environmental Quality representative who shall be responsible for observing and monitoring compliance with the rules and regulations of the Department and the issued permit for geophysical operations.
- (f) "Seismic explorations" means any geophysical exploration method involving the use of explosives and shall include the seismic vibrator method.
- (g) "Seismic vibrator method" means a vibrator device used as an energy source to generate a controlled acoustic wave train.
- (h) "Shooting component" means one explosive charge.
- (i) "Shot" means the use and detonation of Trinitrotoluene (TNT), powder, dynamite, nitroglycerin, each use of the seismic vibrator method, or other explosives.

History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Amended Eff. January 31, 1979;
Readopted Eff. August 1, 1982;
Amended Eff. April 1, 1990;
Readopted Eff. July 1, 2025.

15A NCAC 05C .0103 CORRESPONDENCE

Reports and correspondence by all parties in connection with this Subchapter shall be addressed to "North Carolina Department of Environmental Quality, 1612 Mail Service Center, Raleigh, N.C. 27699-1612" unless parties subject to this Subchapter shall be notified in writing by the Department to direct communications to a specified division or a specified representative of the Department.

History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Amended Eff. January 31, 1979;
Readopted Eff. August 1, 1982;
Amended Eff. April 1, 1990;
Readopted Eff. July 1, 2025.

15A NCAC 05C .0104 SITE REGULATION

The Secretary of the Department of Environmental Quality with the advice of the Director of the N.C. Wildlife Resources Commission and representatives of the U.S. Fish and Wildlife Service, shall designate the extent of how much exploration work may be conducted under this Subchapter.

History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Amended Eff. January 31, 1979;
Readopted Eff. August 1, 1982;
Amended Eff. April 1, 1990;
Readopted Eff. July 1, 2025.

15A NCAC 05C .0105 PERMIT REQUIRED

A permit from the Department is required for all seismic exploration work in the area to which this Subchapter is applicable. No such seismic work shall be started without a permit and all such work shall be carried out in compliance with all applicable laws, rules, and regulations.

*History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.*

15A NCAC 05C .0106 PERMIT APPLICATION

Application for permits for geophysical exploration work shall be filed electronically or in paper form with the Department at least 30 business days before issuance of permits and shall be accompanied by a detailed map showing the exact area in which the geophysical operations are to be conducted, such area to be shown, where possible, by reference to established objects or permanent landmarks. If the applicant is not the owner of the land and owner of the mineral rights to be explored, the applicant shall include the owner's written consent for the applicant to submit an exploration application to conduct exploration activities.

*History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.*

15A NCAC 05C .0107 PERMIT DURATION

Permits are limited to a period of six months from the date of issuance, but may be renewed for not more than two additional 90-day periods at the discretion of the Department. The Department will consider factors including compliance with the original permit; updated environmental impact information, new impacts to public safety and infrastructure, changes to local or regional land use, and renewed bonding and financial assurances. Applications for each renewal shall be submitted electronically or in paper form. Applications can be found on the Department's website at: <https://www.deq.nc.gov/energy-climate/oil-and-gas-program/oil-and-gas-program-forms>. After the expiration of a permit and any renewals thereof, work may continue or be resumed under any new permit issued or application made as provided in Rule .0106 of this Section.

*History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.*

15A NCAC 05C .0108 GEOGRAPHIC LIMITS ON WORK

A seismic exploration shall not be conducted outside of the permitted area.

*History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.*

15A NCAC 05C .0109 SEISMIC AGENTS

Each seismic exploration crew working under a permit issued pursuant to this Subchapter shall always be accompanied by a seismic agent, unless a written exception has been granted by the Department. If a geophysical company employs more than one shooting component or more than one seismic vibration crew, and the operations are at such a distance apart that it is impossible for the seismic agent to travel from one to the other in time to observe the shots of each crew, a seismic agent shall be assigned to each geophysical crew. The seismic agent shall be physically present for each shot and each use of the seismic vibrator method.

*History Note: Authority G.S. 113-391;
Eff. February 1, 1976;*

Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.

15A NCAC 05C .0110 DAILY REPORT REQUIRED

The permittee shall file a daily report on exploration work with the Department at the end of each working day. A separate report shall be made and filed with the Department for each working day whether or not data acquisition is in progress. The Department may request additional information.

History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.

15A NCAC 05C .0111 NOTIFICATION

Permittees shall notify the Department electronically with verifying receipt at least two weeks in advance of the beginning of work, and shall give notice of interruption, and of cessation of work in any area.

History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.

15A NCAC 05C .0112 SIZE OF EXPLOSIVE CHARGES

Explosive charges in excess of 50 pounds of Trinitrotoluene (TNT) or its equivalent shall not be used except pursuant to written authorization from the Department. Requests shall be submitted with the permit application to the Department. Requests to use such charges shall be made in writing, giving the reasons why such charges are needed, the size of the charges to be used, and the depth at which they are to be suspended or buried. Should multiple charges be used, the total amount of explosives should not exceed 50 pounds of TNT or its equivalent without permission from the Department.

History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.

15A NCAC 05C .0113 PLACING OF CHARGES

The placing of explosive charges on the bottoms of the water at any area covered by a permit issued pursuant to this Subchapter is prohibited. No such charges should be detonated that are less than five feet to the bottom. No undetonated charges shall be left following the work day.

History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.

15A NCAC 05C .0115 REMOVAL

All pipe used in geophysical operations shall be removed by the permittee using such pipe to at least six feet below the bottom of the water body and in charted navigable channels, eight feet below charted dredge depth before leaving the location where the pipe is placed.

History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.

15A NCAC 05C .0116 IDENTIFICATION

All permittees using pipe shall have stamped at each end of each joint the name or abbreviation of the name of the permittee.

*History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.*

15A NCAC 05C .0117 PIPES AND BUOYS

All pipes, buoys, and other markers used in connection with seismic work shall be flagged in the daytime and lighted at night according to the navigation rules of the U.S. Army Corps of Engineers and the U.S. Coast Guard.

*History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.*

15A NCAC 05C .0118 EXPLOSIVES

No explosives shall be discharged within 1,000 feet of a boat operating in the water without notice being given to such boat so that it may move from the area.

*History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.*

15A NCAC 05C .0119 SHOOTING

- (a) No shot shall be allowed except in daylight hours. Shot is defined in 15A NCAC 05C .0101(i).
- (b) No shot shall be allowed in heavy fog.
- (c) The permittee shall stop gas and water spouts caused by drilling or shooting operations of seismic crews as soon as possible, but no later than 24 hours after the spout is first noticed.

*History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.*

15A NCAC 05C .0120 MINIMUM DEPTHS

- (a) Minimum required depths of explosive charges detonated in holes below the bottom water within the jurisdiction of this State shall be as follows:

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|-----|---|---------------------------|
| (1) | five pounds or less of trinitrotoluene (TNT) or its equivalent; | 20 feet below the bottom, |
| (2) | up to 20 pounds of TNT or its equivalent; | 40 feet below the bottom, |
| (3) | up to 30 pounds of TNT or its equivalent; | 50 feet below the bottom, |
| (4) | up to 40 pounds of TNT or its equivalent; | 60 feet below the bottom, |
| (5) | up to 50 pounds of TNT or its equivalent; | 70 feet below the bottom. |

- (b) Irrespective of the minimum depths specified in Paragraph (a) of this Rule, all operators shall use responsible precautions per 15A NCAC 05C .0126 to ensure charges have been detonated at sufficient depths to prevent the creation of craters.

- (c) These minimum required depths shall not apply to trial charges and charges for determining condition of the weathering layer; provided that such charges are not over five pounds and not fired without permission of the seismic agent.

*History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;*

Readopted Eff. July 1, 2025.

15A NCAC 05C .0121 DETAILED PROVISIONS

- (a) When more than one shot is fired in the same hole, the permittee shall measure the minimum required depths of the hole, as defined in 15A NCAC 05C .0120(a), after every shot is fired.
- (b) All surveying hub stakes used for survey lines shall be stamped with the name of the permittee using the stakes at three-foot intervals.
- (c) All holes drilled in geophysical operations in land areas shall be filled by the permittee before leaving the location.
- (d) No explosives shall be discharged within 300 feet of any oyster reef or bed, including any state-owned natural reefs, or within 300 feet of any dock, pier, causeway, or other structure anchored to the seabed without written permission signed by the owner and lessee of the reef or bed, and approved by the Department.
- (e) Boats, marsh buggies, or other types of marsh vehicles shall be used to cause minimum disturbance to lands, waterbottoms, wildlife, and fisheries thereon.

*History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.*

15A NCAC 05C .0123 POWERS OF SEISMIC AGENTS

The seismic agent has the authority to stop any particular shooting if it will violate the rules in this Subchapter, but does not have the authority to shut down the entire exploration work allowed by the associated permit. If the rules in this Subchapter continue to be violated, the seismic agent shall contact the Department within 24 hours.

*History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.*

15A NCAC 05C .0124 DUTIES OF PARTY CHIEF

- (a) The party chief shall provide the Department's representative or his or her agent with transportation facilities for inspection of the working area, if required.
- (b) The party chief is required to notify the Department if the seismic agent is not on the working area. The Department shall arrange relief for the seismic agent, if necessary.

*History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.*

15A NCAC 05C .0125 RELEASE FROM THESE REGULATIONS

No seismic agent shall have the authority to release any operator from the obligations imposed by this Subchapter. Permittees may request an exception to these Rules in writing by setting forth reasons for the request. Exceptions may be granted by the Department and shall designate the particular area and rule affected and the procedure to be followed in lieu of the established rule. Exceptions may be granted based on the circumstances provided by the Permittee for the requested change, the significance of the rule to the given project, and the availability and viability of an alternative procedure presented by the Permittee in lieu of the established rule.

*History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.*

15A NCAC 05C .0126 DUTIES OF OPERATORS

All permittees conducting seismic operations shall use precaution in accordance with approved and accepted methods to prevent destruction of, or injury to, fish, oysters, shrimp, and other aquatic life, wildlife, or other natural resources.

*History Note: Authority G.S. 113-391;
Eff. February 1, 1976;
Readopted Eff. August 1, 1982;
Readopted Eff. July 1, 2025.*