1 15A NCAC 05C .0101 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS: 2 3 SUBCHAPTER 5C - GEOPHYSICAL EXPLORATION 4 5 15A NCAC 05C .0101 **DEFINITIONS** 6 (d)(a) Department: "Department" Whenever the word "department" is referred to in these rules, it shall mean means 7 the North Carolina Department of Environment, Health, and Natural Resources Environmental Quality in Raleigh, 8 North Carolina. 9 (a)(b) "Explorations" Explorations. Whenever the word "explorations" is referred to in these rules, it shall mean 10 means geological, geophysical geophysical, and other surveys and investigations, including seismic methods for the 11 discovery and location of oil, gas gas, or other mineral prospects, prospects, and which may or may not involve the 12 use of explosives. 13 (c) "Party chief" means the leader of the on-site crew conducting the exploration work for a company that is permitted 14 to conduct such work under [these rules.] this Subchapter. 15 (d) "Secretary" means Secretary of the Department of Environmental Quality. 16 (e) "Seismic agent" means a North Carolina Department of Environmental Quality representative who shall be 17 responsible for observing and monitoring compliance with the rules and regulations of the Department and the issued 18 permit for geophysical operations. 19 (b)(f) Seismic Explorations: "Seismic explorations" The word "seismic explorations" shall mean means any 20 geophysical exploration method which involves involving the use of explosives explosives and shall include the 21 seismic vibrator method. 22 (g) "Seismic vibrator method" means a vibrator device used as an energy source to generate a controlled acoustic 23 wave train. 24 (h) "Shooting component" means one explosive charge. (e)(i) Shot. "Shot" The word "shot" as used in these rules shall mean means the use and detonation of TNT, 25 26 <u>Trinitrotoluene (TNT)</u>, powder, dynamite, nitroglycerin, each use of the seismic vibrator method, or 27 other explosives. 28 29 Authority G.S. 113-391; History Note: 30 Eff. February 1, 1976; 31 Amended Eff. January 31, 1979; 32 Readopted Eff. August 1, 1982; 33 Amended Eff. April 1, 1990; 34 Readopted Eff. July 1, 2025. 35

15A NCAC 05C .0103 IS READOPTED AS PUBLISHED IN 39.12 NCR 763 AS FOLLOWS: 1 2 3 CORRESPONDENCE 15A NCAC 05C .0103 4 Reports and correspondence by all parties in connection with these rules this Subchapter shall be addressed to "North 5 Carolina Department of Environment, Health, and Natural Resources, Environmental Quality" in Raleigh, N.C." 6 unless from time to time parties subject to these rules this Subchapter shall be notified in writing by the department 7 Department to direct communications to a specified division or a specified representative of the department 8 Department. 9 10 History Note: Authority G.S. 113-391; 11 Eff. February 1, 1976; 12 Amended Eff. January 31, 1979; 13 Readopted Eff. August 1, 1982; 14 Amended Eff. April 1, 1990; Readopted Eff. July 1, 2025. 15 16 17

15A NCAC 05C .0104 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS: 1 2 3 SITE REGULATION 15A NCAC 05C .0104 4 The Secretary of the Department of Environmental Quality Environment, Health, and Natural Resources (and in areas 5 in which wildlife resources will be appreciably affected, with the advice and approval of the Director of the N.C. 6 Wildlife Resources Commission and representatives of the U.S. Fish and Wildlife Service, Service) will shall 7 designate the extent of when, where, and how much exploration work may shall be conducted under these Rules. 8 [rules.] this Subchapter. 9 10 History Note: Authority G.S. 113-391; 11 Eff. February 1, 1976; 12 Amended Eff. January 31, 1979; 13 Readopted Eff. August 1, 1982; 14 Amended Eff. April 1, 1990; Readopted Eff. July 1, 2025 15 16 17

1	15A NCAC 05C	C.0105 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS:
2		
3	15A NCAC 050	C .0105 PERMIT REQUIRED
4	A permit from the	ne <u>Department</u> <del>department</del> is required for all seismic exploration work in the area to which <del>these rules</del>
5	this Subchapter	<del>are</del> <u>is</u> <del>applicable.</del> <u>applicable.</u> No such seismic work shall be started without a permit and all such work
6	must shall be car	rried out in <del>such manner as may be approved by</del> <mark>[the Department.]</mark> s <del>aid secretary.</del> <u>compliance with all</u>
7	applicable laws,	rules, and regulations.
8 9	History Note:	Authority G.S. 113-391;
10		Eff. February 1, 1976;
11		Readopted Eff. August 1, 1982;
12		Readopted Eff. July 1, 2025.
13		
14 15		

1 15A NCAC 05C .0106 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS: 2 3 15A NCAC 05C .0106 PERMIT APPLICATION 4 Application for permits for such geophysical exploration work must shall be filed electronically or in paper form in 5 quadruplicate with the department Department at least 10 days 30 business days before issuance of permits and must 6 shall be accompanied by a detailed map showing the exact area in which the geophysical operations are to be 7 conducted, such area to be shown, where possible, by reference to established eoast objects or [geodetic] permanent 8 landmarks. (The department may hereafter require applications to be filed on special forms to be provided by the 9 department.) Permittees will shall also obtain appropriate assent from the lessee if and where the area under 10 investigation is leased, with exclusive exploration privilege, to other than the permittee. If the applicant is not the 11 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. 12 13 14 History Note: Authority G.S. 113-391; 15 Eff. February 1, 1976; Readopted Eff. August 1, 1982; 16 Readopted Eff. July 1, 2025. 17 18 19

1 15A NCAC 05C .0107 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS: 2 3 15A NCAC 05C .0107 PERMIT DURATION 4 Permits are limited to a period of six months from the date of [issue,] issuance, but may be renewed for not more than 5 two additional 90-day periods at the discretion of the Department, secretary. The Department will consider factors including compliance with the original permit; updated environmental impact information, new impacts to public 6 7 safety and infrastructure, changes to local or regional land use, and renewed bonding and financial assurances. 8 Applications for each renewal may shall be submitted made [electronically.] electronically or in paper form. in letter 9 form. Applications can be found on the Department's website at https://www.deq.nc.gov/energy-climate/oil-and-gas-10 program/oil-and-gas-program-forms. After the expiration of a permit and any renewals thereof, work may continue 11 or be resumed under any new permit issued or application made as provided in Rule .0006 .0106 of this Subchapter. 12 Section. 13 14 History Note: Authority G.S. 113-391; 15 Eff. February 1, 1976; 16 Readopted Eff. August 1, 1982; 17 Readopted Eff. July 1, 2025 18 19

1	15A NCAC 050	C.0108 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS:
2		
3	15A NCAC 05	C .0108 GEOGRAPHIC LIMITS ON WORK
4	No A seismic e	exploration shall not be conducted outside of the permitted area erew shall work outside the area of
5	areas as describ	ed in its permit or permits.
6 7	History Note:	Authority G.S. 113-391;
8	1110101.9 110101	Eff. February 1, 1976;
9		Readopted Eff. August 1, 1982;
10		Readopted Eff. July 1, 2025.
11		
12 13		

1 15A NCAC 05C .0109 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS: 2 3 15A NCAC 05C .0109 **SEISMIC AGENTS** 4 Each seismic exploration crew working under a permit issued pursuant to these rules this Subchapter will shall always 5 be accompanied by a seismic agent, unless a written exception has been granted by the Department. secretary. When 6 If a geophysical company crew employs more than one shooting component or more than one seismic vibration [crew] 7 crew, unit and the operations units are at such a distance apart that it is impossible for the seismic agent to travel from 8 one to the other in time to observe the shots of each crew, it will be required that [an] a seismic agent shall be assigned 9 to each geophysical shooting component of the crew. crew. The seismic agent shall be physically present for each shot 10 and each use of the seismic vibrator method. will be constantly present during the shooting operations of the party to 11 which he is assigned. 12 13 History Note: Authority G.S. 113-391; 14 Eff. February 1, 1976; 15 Readopted Eff. August 1, 1982; 16 Readopted Eff. July 1, 2025. 17 18

1 15A NCAC 05C .0110 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS: 2 3 15A NCAC 05C .0110 DAILY REPORT REQUIRED 4 The permittee shall file a daily report Daily reports on such exploration work shall be filed with the Department 5 department by the seismic agent at the end of each working day. period. A separate report must shall be made and 6 filed with the Department for each working day whether or not data acquisition shooting is in progress. These reports 7 must furnish complete information as indicated on the report form and must be signed by the party chief and by the 8 seismic agent. The party chief will furnish only such information to the seismic agent as is required to fill out the 9 daily reports. Should the department wish to secure any other information, it will furnish the party chief with a written 10 request. The Department may request additional information. 11 12 History Note: Authority G.S. 113-391; 13 Eff. February 1, 1976; 14 Readopted Eff. August 1, 1982; Readopted Eff. July 1, 2025. 15 16 17

1 15A NCAC 05C .0111 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS: 2 3 **NOTIFICATION** 15A NCAC 05C .0111 4 Operators Permittees shall notify the Department department electronically with verifying receipt at least one week 5 two weeks in advance of the beginning, beginning of work, and shall give notice of interruption, and of cessation of 6 work in any area, area. and shall keep the department informed of name and address of party chief, and location and 7 movements of the crew or quarter boat. 8 9 History Note: Authority G.S. 113-391; 10 Eff. February 1, 1976; 11 Readopted Eff. August 1, 1982; Readopted Eff. July 1, 2025. 12 13 14

1 15A NCAC 05C .0112 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS: 2 3 SIZE OF EXPLOSIVE CHARGES 15A NCAC 05C .0112 4 Charges Explosive charges in excess of 50 pounds of [TNT] Trinitrotoluene (TNT) or its equivalent shall not be used 5 except pursuant to written authorization from the Department. Requests shall be submitted with the 6 permit application to the Department. for the use [Use of] Requests to use such charges must shall be made in writing, 7 giving the reasons why such charges are needed, the size of the charges to be used, and the depth at which they are to 8 be suspended or buried. Such requests should be addressed to the department. Should multiple charges be used, the 9 total amount of explosive explosives should not exceed 50 pounds of TNT or its equivalent without special permission 10 from the Department. department. 11 12 History Note: Authority G.S. 113-391; 13 Eff. February 1, 1976; 14 Readopted Eff. August 1, 1982; Readopted Eff. July 1, 2025. 15 16 17

1 15A NCAC 05C .0113 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS: 2 3 15A NCAC 05C .0113 PLACING OF CHARGES 4 The placing of explosive charges on the bottoms of the water at any area covered by a permit issued pursuant to these 5 rules this Subchapter is prohibited. prohibited. No undetonated charges shall be left. No such charges should be detonated that are less than five feet to the bottom. nearer to the bottom or water bed than five feet. No undetonated 6 7 charges shall be left following the work day. 8 9 History Note: Authority G.S. 113-391; 10 Eff. February 1, 1976; 11 Readopted Eff. August 1, 1982; Readopted Eff. July 1, 2025. 12 13 14 15

1	15A NCAC 05C .0115 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS:	
2		
3	15A NCAC 05C .0115 REMOVAL	
4	All pipe used in geophysical operations must shall be removed by the party permittee using such pipe to at least	
5	feet below the bottom of the water body or water bed (and and in charted navigable channels, at least eight feet below	
6	charted dredge depth) depth before finally leaving the shot point. location where the pipe is placed.	
7		
8	History Note: Authority G.S. 113-391;	
9	Eff. February 1, 1976;	
10	Readopted Eff. August 1, 1982;	
11	Readopted Eff. July 1, 2025.	
12		
13		
14		

1	15A NCAC 050	C .0116 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS:
2		
3	15A NCAC 050	C .0116 IDENTIFICATION
4	All <del>parties</del> pern	nittees using pipe must shall have elearly stamped at each end of each joint the name or abbreviation
5	of the name of t	he company using the pipe. permittee.
6 7	History Note:	Authority G.S. 113-391;
8		Eff. February 1, 1976;
9		Readopted Eff. August 1, 1982;
10		Readopted Eff. July 1, 2025.
11		
12 13		

1	15A NCAC 050	C .0117 IS READOPTED AS PUBLISHED IN 39:12 AS FOLLOWS:
2		
3	15A NCAC 050	C .0117 PIPES AND BUOYS
4	All pipes, buoy	s, and other markers used in connection with seismic work shall be properly flagged in the daytime
5	and lighted at n	ight according to the navigation rules of the U.S. Army Corps of Engineers and the U.S. Coast Guard
6 7	History Note:	Authority G.S. 113-391;
8		Eff. February 1, 1976;
9		Readopted Eff. August 1, 1982;
10		Readopted Eff. July 1, 2025.
11		
12 13		

15A NCAC 05C .0118 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS: 1 2 3 15A NCAC 05C .0118 **EXPLOSIVES** 4 No explosives shall be discharged within 1,000 feet of a fishing boat operating in the waters, water without notice 5 being given to such boat so that it may move from the area. Before any shot is discharged the exploration party shall 6 employ methods approved by the industry to frighten or drive away the fish and/or marine life which may be in the 7 area where the shot is to be discharged. If there is a school or schools of fish in the area to be shot, operations must 8 be suspended in that particular area until said school or schools of fish have been driven away. 9 10 History Note: Authority G.S. 113-391; 11 Eff. February 1, 1976; 12 Readopted Eff. August 1, 1982; Readopted Eff. July 1, 2025. 13 14 15

1	15A NCAC 050	C .0119 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS:
2		
3	15A NCAC 050	C .0119 SHOOTING
4	(a) No shootin	<mark>g <u>shot</u> [<del>will</del>] <mark>shall</mark> be allowed except in daylight <u>hours.</u> <mark>Shot is defined in 15A NCAC 05C .0101(i).</mark></mark>
5	hours so that th	e seismic agent may observe the results of each shot, except that, in the discretion of the department
6	and on written r	request stating the reasons therefor special written permission may be granted for night shooting.
7	(b) No shooting	shot will shall be allowed in heavy fog. fog due to danger to boats in close proximity.
8	(c) The permitt	ee shall stop Persistent gas and water spouts caused by drilling or shooting operations of seismic crews
9	as soon as possi	ble, but no later than 24 <mark>[<del>hours.</del>] hours after the spout is first noticed.</mark> <del>will be stopped by permittee as</del>
10	soon as possible	e after they occur.
11		
12	History Note:	Authority G.S. 113-391;
13		Eff. February 1, 1976;
14		Readopted Eff. August 1, 1982;
15		Readopted Eff. July 1, 2025.
16		
17		
18		

1	15A NCAC 050	C.0120 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS:
2		
3	15A NCAC 050	C .0120 MINIMUM DEPTHS
4	(a) Minimum	required depths of <u>explosive</u> charges detonated in holes below the bottom <del>or bed of the inland o</del>
5	offshore waters	water within the jurisdiction of this state State shall be as follows:
6	(1)	five pounds or less of TNT trinitrotoluene (TNT) or its equivalent; 20 feet below the
7		bottom,
8	(2)	up to 20 pounds of TNT or its equivalent; 40 feet below the bottom,
9	(3)	up to 30 pounds of TNT or its equivalent; 50 feet below the bottom,
10	(4)	up to 40 pounds of TNT or its equivalent; 60 feet below the bottom,
11	(5)	up to 50 pounds of TNT or its equivalent; 70 feet below the bottom.
12	(b) No part of t	he charge shall be above the minimum required depth. Irrespective of the minimum depths specified
13	in <u>Paragraph</u> (a)	of this Rule, all charges operators shall be use responsible precautions per 15A NCAC .0126 to ensure
14	charges have be	en detonated at sufficient depths to prevent eratering, the creation of craters.
15	(c) These mini	mum required depths shall not apply to trial charges and charges for determining condition of the
16	weathering laye	r; provided that such charges are not over five pounds and not fired without permission of the seismic
17	agent. and then	no more often than absolutely necessary.
18 19	History Note:	Authority G.S. 113-391;
20	·	Eff. February 1, 1976;
21		Readopted Eff. August 1, 1982;
22		Readopted Eff. July 1, 2025.
23		
24 25		

15A NCAC 05C .0121 IS READOPTED AS PUBLISHED IN 39:12 NCR AS FOLLOWS:

1 2 3

## 15A NCAC 05C .0121 DETAILED PROVISIONS

- 4 (a) When more than one shot is fired in the same hole, hole and there is any reasonable doubt in the mind of either
- 5 the seismic the permittee shall measure agent or the field manager of the party as to the legal depth minimum required
- 6 depths of the hole, as defined in 15A NCAC 05C .0120(a), after the shot is fired, the hole will be measured for
- 7 depth every shot is fired. before reloading to ascertain that it is the required depth in accordance with the table of
- 8 charges and depth.
- 9 (b) All <u>surveying hub stakes 2 x 2's</u> used for survey lines <u>must shall</u> be <u>elearly</u> stamped with the name of the <u>permittee</u>
- 10 company using the stakes at approximately three-foot intervals.
- 11 (c) All holes drilled in geophysical operations in land areas must shall be filled filled, by the permittee the persons or
- 12 agency drilling these holes, before leaving the location.
- 13 (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, eauseway causeway, or other fixed structure, structure anchored to the
- 15 <u>seabed</u> without written permission signed by the owner <del>and/or</del> and lessee of the reef or bed, and approved by the
- 16 department. Department.
- 17 (e) All shot charges suspended in the water by floats shall be of such type and packaged in such manner that same
- 18 will disintegrate and neutralize in the water within a short time, and any suspended charge which fails to discharge
- 19 shall be immediately removed from the water if same can, in the opinion of the party chief or manager, be done without
- 20 endangering the life of any member of the party, but, in no event, shall any such undischarged suspended charge be
- 21 abandoned without destroying the floats attached thereto. Where inflated floats are used, all charges will be suspended
- 22 from dual floats either of which will be capable of retaining the charge at the proper depth.
- 23 (f)(e) Boats, marsh buggies buggies, or other types of marsh vehicles must shall be so used as to cause the minimum
- 24 disturbance of an injury to lands, waterbottoms, and wildlife wildlife, and fisheries thereon. All such vehicles shall
- 25 be clearly painted or otherwise distinctively marked so as to be easily seen and identified.
- 26 (g) Agents assigned to seismic crews are to be employees of and under the supervision of the department.
- 27 (h) The department on request, will have access to all records, such as shot point location maps, shooters' logs and
- 28 tracings, but only to the extent necessary to determine that all protective requirements have been complied with.
- 29 (i) The interpretation of these rules by the department will be accepted by the seismic operator and the seismic agent.
- 30 (j) The party chief will instruct the members of his party as to these rules, and to the duty and authority of the
- 31 department and the seismic agent.
- 32 (k) The party chief will assist the seismic agent to fill out the required form by furnishing all necessary data.

33

- 34 History Note: Authority G.S. 113-391;
- 35 *Eff. February 1, 1976;*
- 36 Readopted Eff. August 1, 1982;
- 37 <u>Readopted Eff. July 1, 2025.</u>

1	15A NCAC 050	C.0123 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS:
2		
3	15A NCAC 050	C .0123 POWERS OF SEISMIC AGENTS
4	The seismic age	nt has the <mark>right</mark> <u>authority</u> to stop any particular <u>shooting</u> <del>shooting, if, in his opinion,</del> <u>if</u> it will violate
5	the rules in this	Subchapter, but does not have the authority to shut down the entire exploration work. work allowed
6	by the associated	<mark>l permit.</mark> I <del>f, in the opinion of the seismic agent,</del> <u>If</u> <mark>such violations</mark> <u>the rules in this Subchapter</u> <del>continue,</del>
7	continue to be v	<mark>iolated,</mark> <mark>he <mark>for she</mark>] <u>the seismic agent</u> shall <del>will immediately</del> contact the <u>Department within 24 hours.</u></mark>
8	department, and	the members of the exploration party will assist him to do this with all the facilities at their disposal.
9		
10	History Note:	Authority G.S. 113-391;
11		Eff. February 1, 1976;
12		Readopted Eff. August 1, 1982;
13		Readopted Eff. July 1, 2025.
14		
15		
16		

1	15A NCAC 050	C .0124 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS:	
2			
3	15A NCAC 050	C .0124 DUTIES OF PARTY CHIEF	
4	(a) The party of	chief <u>shall provide</u> <del>will furnish</del> the <del>department</del> <u>Department's representative</u> <del>supervisor</del> or his <u>or her</u>	
5	agent with transportation facilities to for inspection-enable him to visit of the working area, if required.		
6	(b) The party of	chief is required to notify the Department department immediately if the seismic agent is not on the	
7	working area. je	ob, and will notify the department supervisor if it should become necessary to relieve an agent at any	
8	time. The Depa	arrange relief for the seismic agent, if necessary.	
9			
10	History Note:	Authority G.S. 113-391;	
11		Eff. February 1, 1976;	
12		Readopted Eff. August 1, 1982;	
13		Readopted Eff. July 1, 2025.	
14			
15			
16			

1 15A NCAC 05C .0125 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS: 2 3 15A NCAC 05C .0125 RELEASE FROM THESE REGULATIONS 4 No seismic agent shall have the [right] authority to release any operator from the obligations imposed by [these rules.] 5 this Subchapter. [Permittee] Permittees may request an exception to these [rules] Rules in writing by setting forth 6 reasons for the request. Exceptions may be granted by the department Department only, after written application 7 setting forth reasons for exception. The release and will-shall designate the particular area and rule affected and the 8 procedure to be followed in lieu of the established rule. Exceptions may be granted based on the circumstances 9 provided by the Permittee for the requested change, the significance of the rule to the given project, and the availability 10 and viability of an alternative procedure presented by the Permittee in lieu of the established rule. 11 12 History Note: Authority G.S. 113-391; 13 Eff. February 1, 1976; 14 Readopted Eff. August 1, 1982; Readopted Eff. July 1, 2025. 15 16 17

1	15A NCAC 050	C .0126 IS READOPTED AS PUBLISHED IN 39:12 NCR 763 AS FOLLOWS:
2		
3	15A NCAC 05	C .0126 DUTIES OF OPERATORS
4	All <del>operators</del> <u>po</u>	ermittees conducting seismic operations shall use reasonable precaution in accordance with approved
5	and accepted methods. methods to prevent destruction of, or injury to, fish, oysters, shrimp, and other aquatic life	
6	wildlife, or other	er natural resources.
7		
8	History Note:	Authority G.S. 113-391;
9		Eff. February 1, 1976;
10		Readopted Eff. August 1, 1982;
11		Readopted Eff. July 1, 2025.
12		
13		