

GENERAL ASSEMBLY OF NORTH CAROLINA  
SESSION 2025

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SENATE BILL DRS45551-NPa-45

Short Title: A.I. in Environmental Permitting. (Public)

Sponsors: Senator Jarvis (Primary Sponsor).

Referred to:

1 A BILL TO BE ENTITLED  
2 AN ACT TO PROMOTE THE USE OF ARTIFICIAL INTELLIGENCE AS A  
3 DECISION-SUPPORT TOOL IN THE REVIEW AND DRAFTING OF  
4 ENVIRONMENTAL PERMITS.

5 The General Assembly of North Carolina enacts:

6 **SECTION 1.** Legislative Findings. – The General Assembly makes the following  
7 findings:

- 8 (1) Environmental permitting by the Department of Environmental Quality is a  
9 critical function of State government that protects public health, the  
10 environment, and the economy of North Carolina.  
11 (2) Advances in artificial intelligence, including large language model systems  
12 and retrieval-augmented generation tools, offer significant potential to assist  
13 agency staff in the drafting and review of environmental permits by  
14 accelerating routine tasks, improving consistency, and reducing processing  
15 times.  
16 (3) The use of artificial intelligence as a permit drafting and permit review tool,  
17 subject to independent human review and decision-making by agency staff  
18 exercising professional judgement, is consistent with the principles of  
19 government efficiency.  
20 (4) A joint initiative between the Environmental Management Commission and  
21 the Department of Environmental Quality to use artificial intelligence tools  
22 for environmental permitting will benefit permit applicants, regulated entities,  
23 State employees, and the general public.

24 **SECTION 2.** Joint Program. – Article 7 of Chapter 143B of the General Statutes is  
25 amended by adding a new section to read:

26 "**§ 143B-279.22. Artificial Intelligence in Environmental Permitting.**

27 (a) Definitions. – The following definitions apply in this section:

- 28 (1) Artificial intelligence or A.I. – A machine-based system that processes inputs  
29 and generates outputs, such as texts, recommendations, comparisons,  
30 summaries, and predictions. Artificial intelligence includes large language  
31 models, natural language processing tools, and retrieval-augmented  
32 generation systems.  
33 (2) Commission. – The Environmental Management Commission.  
34 (3) Department. – The Department of Environmental Quality.  
35 (4) Environmental permit. – Any permit, certificate, approval, or authorization  
36 issued by the Commission or the Department under this Article, Article 4 of



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1 Chapter 113A, Articles 9 or 10 of Chapter 130A, or Articles 21, 21A, or 21B  
2 of Chapter 143 of the General Statutes, or the rules adopted thereunder.

3 (b) Joint A.I. Environmental Permitting Program; Established. – The Commission and  
4 the Department shall jointly establish a program to implement the use of artificial intelligence to  
5 assist agency staff in the drafting and review of applications for environmental permits.

6 (c) Rulemaking. – The Commission may adopt rules to establish standards and  
7 procedures for the use of artificial intelligence systems by agency staff of the Department of  
8 Environmental Quality to review and analyze permit applications and to draft environmental  
9 permits. Rules adopted by the Commission pursuant to this section are not subject to  
10 G.S. 150B-19.4 or G.S. 150B-21.3(b3), and may do the following:

- 11 (1) Define the permissible uses of artificial intelligence in the permitting process.
- 12 (2) Establish quality assurance and control requirements for permits drafted with  
13 the assistance of artificial intelligence.
- 14 (3) Adopt training requirements for agency staff who use artificial intelligence to  
15 review applications for environmental permits.
- 16 (4) Establish confidentiality, cybersecurity, and data protection requirements for  
17 information processed, transmitted, stored, or generated through artificial  
18 intelligence systems, including requirements to protect confidential business  
19 information, trade secrets, security-sensitive infrastructure information, and  
20 other information protected from disclosure under State or federal law.
- 21 (5) Prohibit the use of artificial intelligence systems that use applicant  
22 information, permit application materials, or agency records to train a  
23 vendor-owned or third-party artificial intelligence model unless expressly  
24 authorized by the Department under standards approved by the State Chief  
25 Information Officer.
- 26 (6) Establish protocols for monitoring and discontinuing the use of artificial  
27 intelligence based on the performance and accuracy of artificial intelligence  
28 systems.

29 (d) Agency Staff Review; Decision-making. – No environmental permit application shall  
30 be approved, denied, delayed, conditioned, or otherwise acted upon solely on the basis of  
31 artificial intelligence output. Relevant agency staff shall independently review, evaluate, and, as  
32 appropriate, modify any analysis, recommendation, draft permit, draft permit condition,  
33 deficiency letter, or other work product prepared with the assistance of artificial intelligence.

34 (e) Transparency. – The Department shall maintain and make publicly available  
35 documents describing the artificial intelligence systems used by agency staff and the functions  
36 performed by those artificial intelligence systems in the environmental permitting process. The  
37 Department shall inform an applicant for an environmental permit to the fact that artificial  
38 intelligence was used by agency staff to assist in reviewing the permit application or to assist in  
39 drafting the permit.

40 (f) Federal and State Law Compliance. – The Commission and the Department shall  
41 implement the program established in this section only to the extent consistent with State law,  
42 federal law, and federal delegation agreements, federally approved State programs, and all  
43 applicable public notice, public comment, hearing, administrative review, and judicial review  
44 requirements. Nothing in this section shall be construed to alter the substantive standards  
45 applicable to the issuance, denial, modification, or revocation of an environmental permit.

46 (g) Reporting. – No later than January 15 each year, the Department shall submit a report  
47 to the Environmental Review Commission, the Joint Legislative Oversight Committee on  
48 Agriculture and Natural and Economic Resources, and the Fiscal Research Division. The report  
49 shall contain the following information from the previous year:

- 50 (1) The number and type of permits for which artificial intelligence was used.
- 51 (2) A performance assessment for each type of artificial intelligence system used.

- 1           (3)    A comparison of the average permit processing timeframes for agency staff  
2           using artificial intelligence relative to agency staff not using artificial  
3           intelligence.
- 4           (4)    A report on each incident in which agency staff have identified artificial  
5           intelligence system errors, and the corrective actions taken in response to these  
6           incidents.
- 7           (5)    Any recommendations as to whether to continue, expand, modify, or  
8           discontinue the use of artificial intelligence systems in the environmental  
9           permitting process."

10           **SECTION 3.** Program Implementation. – The Commission and the Department shall  
11 implement the Joint A.I. Environmental Permitting Program (Program) established in  
12 G.S. 143B-279.22, as enacted by Section 2 of this act, in the following sequence, with each phase  
13 to be initiated only upon the Commission having determined that the applicable rules, quality  
14 assurance requirements, and staff training are sufficiently in place:

- 15           (1)    Phase I. – Post-construction stormwater permits issued under Article 21 of  
16           Chapter 143 of the General Statutes.
- 17           (2)    Phase II. – Major and minor new source review air permits issued under  
18           Article 21B of Chapter 143 of the General Statutes.
- 19           (3)    Phase III. – Erosion and sedimentation control permits issued under Article 4  
20           of Chapter 113A of the General Statutes.
- 21           (4)    Phase IV. – Any other environmental permit to be determined by the  
22           Commission following the Program's extension through the first three  
23           implementation phases as provided in this section.

24           **SECTION 4.** Staffing Flexibility. – Funds appropriated in this section may be used  
25 by the Director of the Commission's staff to hire temporary employees with demonstrated  
26 expertise in artificial intelligence technologies to provide technical guidance and assistance in  
27 implementing A.I. tools for purposes of improving the efficiency and quality of environmental  
28 permit processing under this act. Notwithstanding any other provision of law to the contrary,  
29 temporary employment or engagement under this section shall be funded from appropriations  
30 made available under this act and shall not be subject to the position classification or salary  
31 schedule requirements of Chapter 126 of the General Statutes.

32           **SECTION 5.** Appropriation. – There is appropriated from the General Fund to the  
33 Department of Environmental Quality the sum of one million dollars (\$1,000,000) in  
34 nonrecurring funds for the 2026-2027 fiscal year to be used for purposes of implementing the  
35 Joint A.I. Environmental Permitting Program established in G.S. 143B-279.22, as enacted by  
36 Section 2 of this act. Funds appropriated under this section shall not revert at the end of the  
37 2026-2027 fiscal year but shall remain available until expended.

38           **SECTION 6.** Effective Date. – This act becomes effective July 1, 2026.