



Materials Inspection Report

1. Licensee/Location Inspected: Corteva Agriscience, LLC 9330 Zionsville Road Indianapolis, IN 46268 Report Number(s) 2022-001	2. NRC/Regional Office Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Road, Suite 210 Lisle, IL 60532-4352	
3. Docket Number(s) 030-32714	4. License Number(s) 13-26398-01	5. Date(s) of Inspection August 25, 2022

LICENSEE:
 The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector. The inspection findings are as follows:

- 1. Based on the inspection findings, no violations were identified.
- 2. Previous violation(s) closed.
- 3. During this inspection, certain of your activities, as described below and/or attached, were in violation of NRC requirements, and were assessed at Severity Level IV, in accordance with the NRC Enforcement Policy.
 - A. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy were satisfied.
 (Non-cited violation(s) was/were discussed involving the following requirement(s))
 - B. The following violation(s) is/are being cited in accordance with NRC Enforcement Policy. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.
 (Violations and Corrective Actions)

Statement of Corrective Actions

I hereby state that, within 30 days, the actions described by me to the Inspector will be taken to correct the violations identified. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201 (corrective steps already taken, corrective steps which will be taken, date when full compliance will be achieved). I understand that no further written response to NRC will be required, unless specifically requested.

TITLE	PRINTED NAME	SIGNATURE AND DATE
LICENSEE'S REPRESENTATIVE		
NRC INSPECTOR	Ryan Craffey	 <small>Digitally signed by Ryan J. Craffey Date: 2022.09.08 15:41:26 -04'00'</small>
BRANCH CHIEF	Michael Kunowski	Michael A. Kunowski <small>Digitally signed by Michael A. Kunowski Date: 2022.09.12 09:24:03 -05'00'</small>



Materials Inspection Record

1. Licensee Name: Corteva Agriscience, LLC		2. Docket Number(s): 030-32714		3. License Number(s) 13-26398-01	
4. Report Number(s): 2022-001			5. Date(s) of Inspection: August 25, 2022		
6. Inspector(s): Ryan Craffey		7. Program Code(s): 03611	8. Priority: 5	9. Inspection Guidance Used: IP 87126	
10. Licensee Contact Name(s): Ken Beavers - RSO		11. Licensee E-mail Address: kenneth.beavers@corteva.com		12. Licensee Telephone Number(s): 317-337-4558	
13. Inspection Type: <input checked="" type="checkbox"/> Routine <input type="checkbox"/> Non-Routine <input type="checkbox"/> Announced <input checked="" type="checkbox"/> Unannounced		14. Locations Inspected: <input checked="" type="checkbox"/> Main Office <input type="checkbox"/> Field Office <input type="checkbox"/> Temporary Job Site <input type="checkbox"/> Remote		15. Next Inspection Date (MM/DD/YYYY): 08/25/2027 <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Extended <input type="checkbox"/> Reduced <input type="checkbox"/> No change	

16. Scope and Observations:

Corteva Agriscience was an agricultural chemical and seed company authorized to use byproduct material for research and development and in analytical and measuring devices at its headquarters in Indianapolis, Indiana, and at a satellite campus in Newark, Delaware. At the time of the inspection, the licensee had 76 authorized users in Indianapolis who worked with radiolabeled compounds containing C-14 and, in one case, H-3 also. The majority of licensed material (millicurie quantities of C-14) was used and stored in a radiosynthesis laboratory, while the majority of users worked in a large analytical laboratory with microcurie quantities of C-14 compounds labeled by the synthesis lab for metabolism studies. The licensee also had one Ni-63 ECD in an adjacent analytical laboratory. Licensed activities in Newark were reportedly similar (20-25 authorized users), except that I-125 was also used. The program was overseen by an RSO based in Indianapolis, supported in his oversight of the program by a Radiation Safety Technical Assistant and an RSC, which met quarterly.

The inspector toured the licensee's campus in Indianapolis, including the radiosynthesis lab, analytical labs, and waste storage area. All areas in which radioactive material was present were adequately posted and all licensed material was adequately secured. All vials of stock C-14 in the radiosynthesis lab were present and accounted for. The inspector observed the handling and use of licensed material (HPLC samples) in the analytical lab, discussed the use and handling of licensed material with staff in the radiosynthesis lab, discussed handling and transfer of radioactive waste with environmental services staff, and conducted independent surveys in each area, with no evidence of residual contamination noted. Adequate personnel protective equipment, contamination control measures and radiation detection instruments were present throughout each facility.

The inspector reviewed a selection of radiation safety program records, including RSC meeting minutes, authorized user approvals, area contamination survey results, sealed source leak test results, material accountability and transfer documentation, and personnel dosimetry reports.

No violations of NRC requirements were identified as a result of this inspection.