At a Glance

Audit of the EPA's Central Data Exchange System

Why We Did This Audit

To accomplish this objective:

The U.S. Environmental Protection Agency Office of Inspector General conducted this audit to determine whether the EPA has established sufficient controls to prevent unauthorized access to the Central Data Exchange system.

The Central Data Exchange is a web-based system that allows companies, states, tribes, and other regulated entities to electronically report and transfer their environmental data securely within and outside the EPA. It accepts environmental data for the EPA's air, water, hazardous waste, and toxics release inventory programs, which are sent to one or more of the over 30 program services connected to the system. According to the Office of Mission Support, for fiscal year 2023, the Central Data Exchange system had an operating budget of over $4 million.

To support this EPA mission-related effort:

- *Operating efficiently and effectively.*

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List of OIG reports.

What We Found

The EPA needs to strengthen management and access security controls for the Central Data Exchange, or CDX, system. Specifically, we found that:

- The Office of Pesticide Programs granted 102 non-U.S. users access to the Pesticide Submission Portal without verifying their identities.

- The EPA's account management for the CDX system failed to adhere to the Agency's access control guidance. We identified over 85,000 CDX accounts that were not disabled despite being inactive for over 60 days. We also identified over 100,000 CDX accounts that exceeded the maximum days allowed for user passwords under Agency requirements.

- The CDX system allowed users to input data strings that were not validated for quality and accuracy, such as "aa123<>" listed as a last name and "<i>YOU'REACKED</i>" listed as the username.

- The EPA did not mitigate significant vulnerabilities that an independent security control assessor identified in the *Central Data Exchange Security Assessment Report Continuous Monitoring Assessment – Year 2*, dated March 2022. Although plans of action and milestones were created for these vulnerabilities, the Agency did not review and update the plan of action and milestones in accordance with the Agency's guidance.

> **The security of the CDX system is integral to the EPA accepting electronic environmental data for the Agency's air, water, hazardous waste, and toxics release inventory programs. Without adequate security controls, the CDX is vulnerable to threat actors exploiting weak security controls to potentially gain unauthorized access, create fraudulent accounts, and enter unreliable data into the system.**

Recommendations and Planned Agency Corrective Actions

We initially made 11 recommendations to the principal deputy assistant administrator for Mission Support and two recommendations to the assistant administrator for Chemical Safety and Pollution Prevention regarding the security of the EPA's CDX system. The Agency concurred with seven of our recommendations and provided acceptable corrective actions with estimated milestone dates. In response to Agency comments on the draft report, we revised Recommendation 1 and split responsibility for Recommendation 2. This resulted in an additional recommendation (Recommendation 4) for a total of 12 recommendations for the Office of Mission Support. We consider Recommendations 1, 2, 4, 9, 10, 11, 12, and 14 resolved with corrective actions pending. The six remaining recommendations are unresolved.