EPA Good Laboratory Practice Program Regulatory Update

Presented to

National Alliance of Independent Crop Consultants

Monterey, CA
January 23, 2025

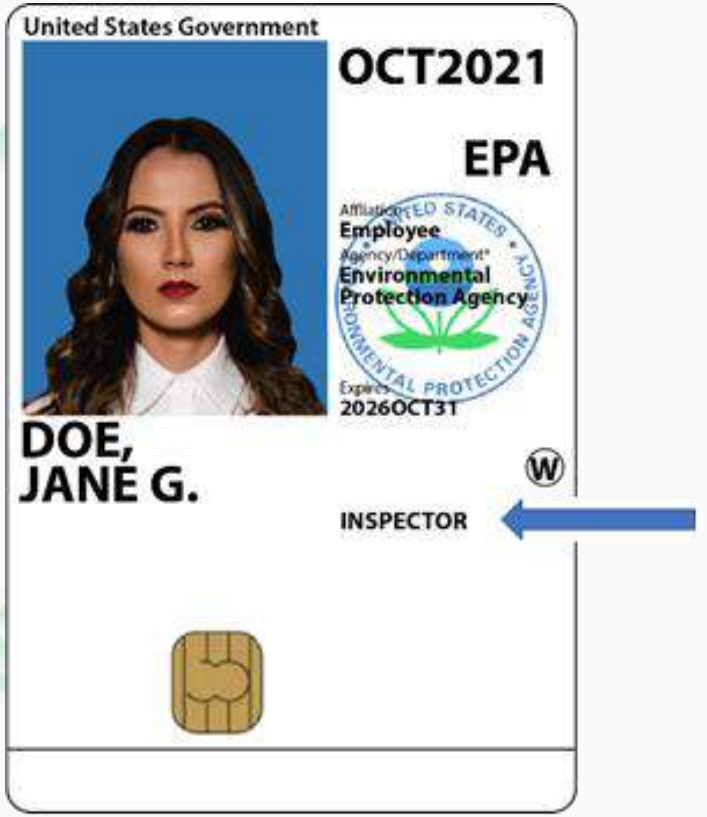
Francisca Liem
US Environmental Protection Agency

GLP Program General Update

- Quality Assurance
- Common compliance observations from FY 2024
- GLP Inspection program updates

Preparation for an EPA GLP Inspection

- Notify sponsors of studies to be audited, request for all raw data, including test substance characterization data and study records to be sent to the testing facility.
- Notify Test Facility Management, study directors, Quality Assurance Unit, all laboratory personnel and archivist and receptionist.
- Assign a contact QA person.
- Review Facility SOP on hosting a regulatory inspection.
- Do a rehearsal (mock inspection).
- Review final reports, raw data/study records for potential problems.
- Do not offer any meals or gifts!



Quality Assurance Unit

I. Report Audits: How much is too much/not enough?

- 40 CFR 160.35(b)(3):
  - Inspect each study at intervals adequate to ensure the integrity of the study.
    - Maintain written and properly signed records of each periodic inspection showing:
      - Date of inspection
      - Study inspected
      - Phase or segment of the study inspected
      - Person performing the inspection
      - Findings and problems
      - Action recommended and taken to resolve existing any problems
      - Any scheduled date for reinspection
  - Any problems which are likely to affect study integrity found during the course of an inspection shall be brought to the attention of the study director and management immediately.

Courtesy of Northern Plains Ag Research

Quality Assurance Unit

II. Auditing electronic vs manually generated data

1. Data Retrievability (Legible)
2. Metadata
3. Audit Trails
4. Electronic Signatures
5. Validation

Quality Assurance Unit

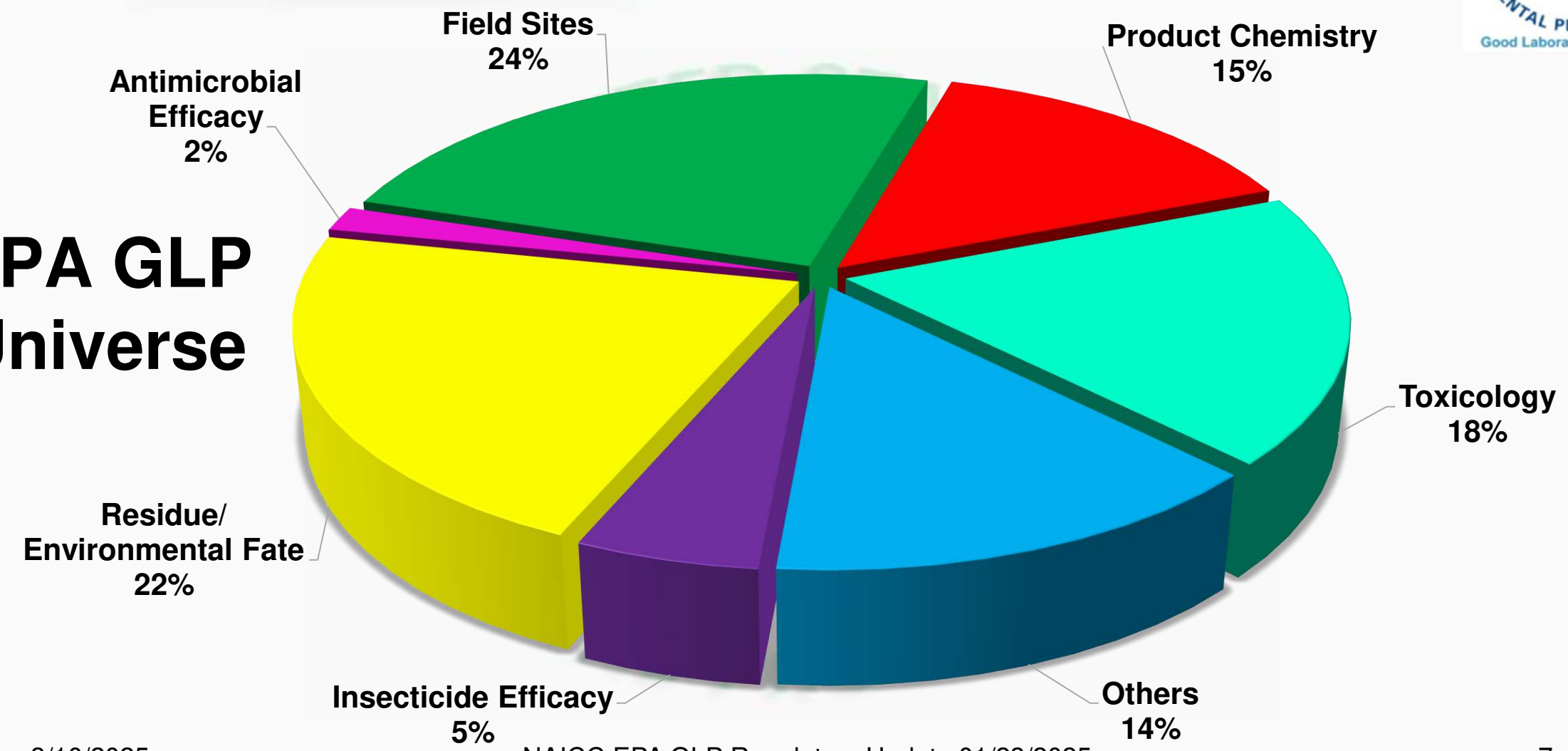
III. QA inspections:

How thoroughly should QA audit studies/data/reports, and best way to document activities?

- QA should assure that final report accurately reflect raw data of study.

Courtesy of Northern Plaines Ag Research

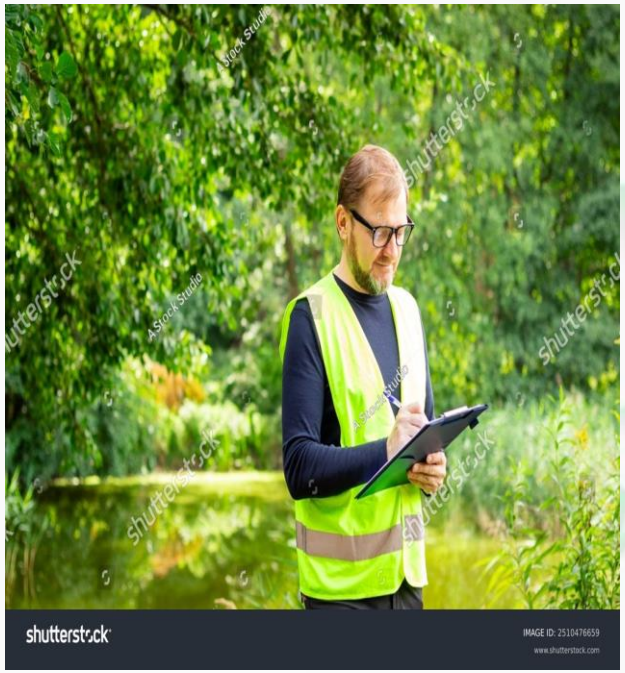
EPA GLP Universe



GLP Compliance observations from FY 2024

FY 2024 GLP Inspections

- **Total # inspections: 54**
- **Total # facilities with No GLP Deviations: 37 (69%)**



	# inspections per discipline	# No GLP Deviations	% No GLP Deviations
Field	19	19	100%
Product Chemistry	15	6	40%
Analytical Chemistry Labs	7	3	42%
Toxicology	3	2	67%
Antimicrobial Efficacy	3	2	67%
Insecticide Efficacy	3	1	33%
Spray Drift	1	1	100%
Rodenticide Efficacy	1	1	100%
Termiticide Efficacy	1	1	100%
Information Technology	1	1	100%

FY 2024 GLP Deviations by Disciplines

	Field site	Product Chemistry	Analytical Chemistry	Antimicrobial Efficacy	Insecticide Efficacy	Toxicology	Miscellaneous*
No findings	19	6	3	2	1	2	4
Subpart A							
Subpart B		7	2	2	1		
Subpart C							
Subpart D		4					
Subpart E		2					
Subpart F							
Subpart G		5	1	1			
Subpart J		3	1	1	1		

***Miscellaneous:** *Spray Drift, Rodenticide Efficacy, Termiticide Efficacy, Information Technology.*

2024 EPA GLP Inspection Findings

- **40 CFR 160 Subpart B**

1. Lack of QAU that is independent from study personnel, including study director.
2. Lack of QA inspections.
3. QA lacks documentation of education, training and experience.
4. Lack of QA statement in final reports.
5. Protocol deviation was not signed by study director.
6. Miscalculation and misreporting.
7. Final report does not reflect raw data.

2024 EPA GLP Inspection Findings

- 40 CFR 160 Subpart D

  1. Thermometer was not calibrated against a NSTM thermometer or equivalent.

- 40 CFR 160 Subpart E

  1. SOP deviation.
  2. SOP is not complete.

2024 EPA GLP Inspection Findings

- 40 CFR 160 Subpart G

1. Lack of study protocol.
2. Protocol deviation was not signed by study director.
3. Incorrect equation was used in a method.
4. Raw data was not initialed at the time of entry.
5. Missing raw data of study temperature.

2024 EPA GLP Inspection Findings

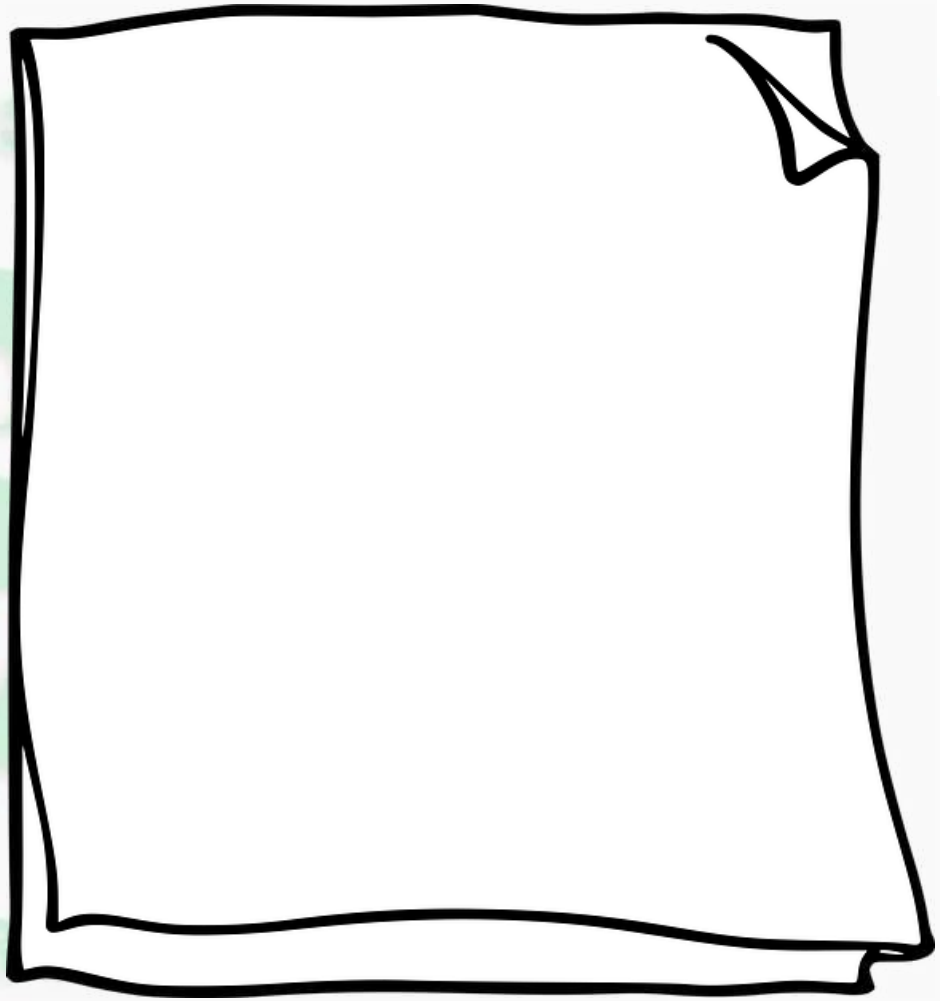
- **40 CFR 160 Subpart J**

1. **Lack of names of other scientists and supervisory personnel in the final study report.**
2. **Lack of QA statement in final reports.**
3. **Miscalculation and misreporting.**
4. **Final report does not reflect raw data.**

2024 EPA GLP Inspection Findings

- 40 CFR 169.2(k)

1. Lack/Missing raw data
2. Lack of protocol



NAICC EPA GLP Regulatory Update 01/23/2025

EPA GLP Regulatory Review

Type of studies rejected	No. of studies rejected	Reason for study rejection
Product Chemistry	2	Numerous violations found in health effects studies. Product not registered.
Antimicrobial Efficacy	2	Multiple errors in final reports, calculation errors, lab notebook missing due to fire, lack of limited access to archives, lack of calibration records for incubator, missing raw data for control results.
Product Chemistry	1	Error in final report, corrected by sponsor.
Toxicology **Product Chemistry**	6 52	Numerous GLP deficiencies, falsification of data.

EPA rejected 58 studies from a laboratory

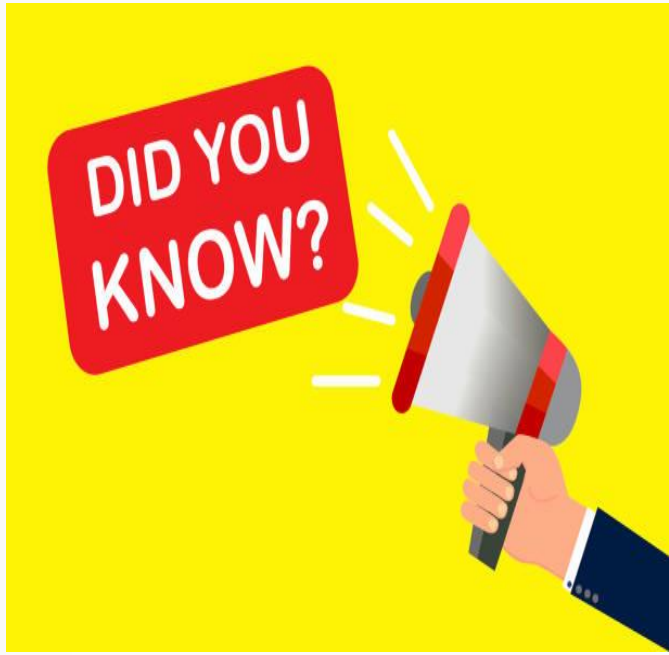
- Laboratory is located in an OECD MAD country, GLP approved by its Compliance Monitoring Authority (CMA).
- Has submitted 58 studies to EPA.
- EPA Reviewer noted inconsistencies: 2 product chemistry study reports produced the same results.
- EPA Receiving Authority requested GLP CMA for an inspection and data audit of the 58 studies.
- Under the OECD MAD agreement, EPA requested a GLP inspection of the facility and data audit of the 58 studies.
- The GLP inspection and data audit revealed falsification of the studies.
- EPA's decision was not to accept any studies from this lab, until the local CMA has reinspected and declared in-compliance lab.
- Lab appealed to EPA and showed corrective actions.
- EPA Receiving Authority is now accepting studies again from this lab. The acceptance is related to GLP compliance. A scientific review continues to be assessed.

GLP Alert 1

- **Lack of QAU that is independent from study personnel, including study director [40 CFR 160.31(c) and 40 CFR 160.35(a)]**

The reason for an independent QAU is to be able to inspect and review any study phases and raw data/records without due pressure from QAU superiors.

QAU should independently inspect and report the findings on real ongoing phases, processes and procedures in addition to data notebooks. Read protocol and SOPs before starting the inspection and audit.



GLP Alert 2

Final report does not reflect raw data (40 CFR 160.35(b)(5) and (6)

Final report is an important document for a regulatory action. EPA reviewers only sees derived data in the final report. Reviewers make their regulatory decision based on the submitted final report.

QA should pay attention to the review and audit of the final report:

- Determine that no deviations from approved protocol or SOPs were made without proper authorization and documentation.
- Review the final study report to assure that such report accurately describes the methods and SOPs, and that the reported results accurately reflect the raw data of the study.

GLP Alert 3

- **The final report should include a description of the transformations, calculations, or operations performed on the data, …[40 CFR 160.185(a)(11)].**

Not adhering to this regulation causes many questions on the operations performed on the data and reporting errors.

When reviewing final reports, QAU should pay attention that all GLP requirements of a final report are adhered to.

EPA GLP Program 2025

- 6 GLP credentialed inspectors.
- Inspection of Information Technology.
- GLP Advisories.
- GLP inspection website.
- Continue with the use of Smart Tools for inspections.

The only way to do great work is to love what you do

Francisca Liem
US Environmental Protection Agency
William Jefferson Clinton South
1200 Pennsylvania Ave., NW
Washington, DC 20460
202-564-2365
Liem.Francisca@epa.gov