



REQUIREMENTS FOR CHANGING TO A NEW METHOD

Iowa Laboratory Certification Program

Fact Sheet 1

Version 1.1

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1. New SOP written specifically for your laboratory situation

- Manufacturers instruction are acceptable if they fit your situation in the lab.

2. Calibration range of equipment

- Must use at least 3 standards and a blank.

3. Method detection Limit (MDL)

- If applicable – e.g., an MDL for pH is not practical.

4. Level of Quantitation (LOQ) or Reporting Limit of the equipment and method

- This can be determined from the MDL. Good Laboratory Practices (GLP) suggest that the lowest standard in the calibration curve be the same as the LOQ.

5. Pass a Proficiency Test (PT) for the method/analyte pair in the concentration

range of the samples you will be analyzing, and every 12 months thereafter

- The primary analyst should perform the PT and the back-up analysts should also analyze the PT before the result is submitted. The primary analyst should report her/his result. Once the report is made available, the primary analyst needs to evaluate the accuracy of each analyst's result. Some labs alternate which analyst reports the result from year to year.

6. Analyze 20 to 30 samples using new and old methods to assure new method gives comparable results*

- Other alternatives include splitting samples with another plant or commercial laboratory or using old PT samples that are not expired.

7. Demonstration of capability of all analysts who will perform the analysis

- Analyze four individually prepared mid-calibration level standards and calculate the mean and standard deviation.
- OR analyze a PT within acceptable limits

This fact sheet was developed jointly by Don Simmons, LabCert Program Manager of the State Hygienic Laboratory at the University of Iowa and Kathy Lee, Iowa DNR Lab Certification Authority

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