**Steps in Data Analysis and Interpretation**

1. **Enter Data into Appropriate Statistical Tool**
2. **Evaluate the Goodness-of-Fit to Validate Assumption of Lognormality**
3. **Review Descriptive and Inferential Statistics**

Compare…

* + the “decision statistic” (e.g., sample 95th percentile) to the OEL.
  + the 95%UCL (UTL95%,95% ) to the OEL.

1. **Assign a Final Rating and Certainty Level**
   1. **Final Rating:** Compare the sample 95th percentile to the Exposure Control Categories (ECCs) and select a category.
   2. **Certainty Level:** Compare the 95%UCL (UTL95%,95% ) to the ECCs

Rules of Thumb:

* + - 1. Low certainty if > 2 categories above the chosen ECC
      2. Medium certainty if only 1 category above
      3. High certainty if within chosen category

1. **Document the Analysis and Recommended Follow-up Actions**

Recommend controls and/or PPE; work practice evaluation; additional sampling; surveillance sampling, etc.

**Use BDA Charts to Assign a Final Rating and Certainty Level**

* **Final Exposure Rating**
  + Exposure Control Category (ECCs) = category with highest bar (highest likelihood)
* **Certainty Level Rules of Thumb**
  + Low Certainty – decision probability is < 0.5 (Highest bar likelihood <50%)
  + Medium Certainty – decision probability is between 0.5 and 0.75 (Highest bar likelihood 50%-75%)
  + High Certainty – decision probability is greater than 0.75. (Highest bar likelihood >75%)

**If ECC ≤ 3: Use BDA Charts to Check Likelihood of Category 4 (95%ile > OEL)**

Large Category 4 decision probabilities indicate that the true 95th percentile may exceed the OEL and therefore should be a cause for concern whenever the SEG is unlikely to be reevaluated for an extended period.

* + As a rule-of-thumb, Category 4 decision probabilities up to 0.30 are tolerable, provided the SEG is regularly checked as part of an ongoing monitoring strategy.
    - < 0.05 (Category 4 likelihood <5%) – **acceptable**
    - 0.05 - 0.3 (Category 4 likelihood 5% - 30%) – **tolerable**, **assuming the SEG has a required monitoring plan**
    - > 0.3 (Category 4 likelihood >30%) – **problematic**, particularly if the SEG has no monitoring plan.