SMTA Process Engineer Certification Typical (Open Book) Question

Reflow Soldering:

An assembly facility is complaining of defects following the reflow soldering process on multiple products.

Typical defects include:
  o Poor wetting
  o Melting & discoloration of components and PCBs
  o Solder Balls

You have no prior knowledge or experience with this facility but are asked to investigate and suggest improvements. In communications with the facility, they appear to have a good understanding of printing and placement and provide good documentation for these processes; but can provide no information on the reflow process.

1. What information would you seek to understand and reduce these defects?

2. Based on the types of defects observed, what problems might you expect to uncover?

3. Define an appropriate continuing documentation system for the reflow process?