



AIHA
CONNECT™
2024

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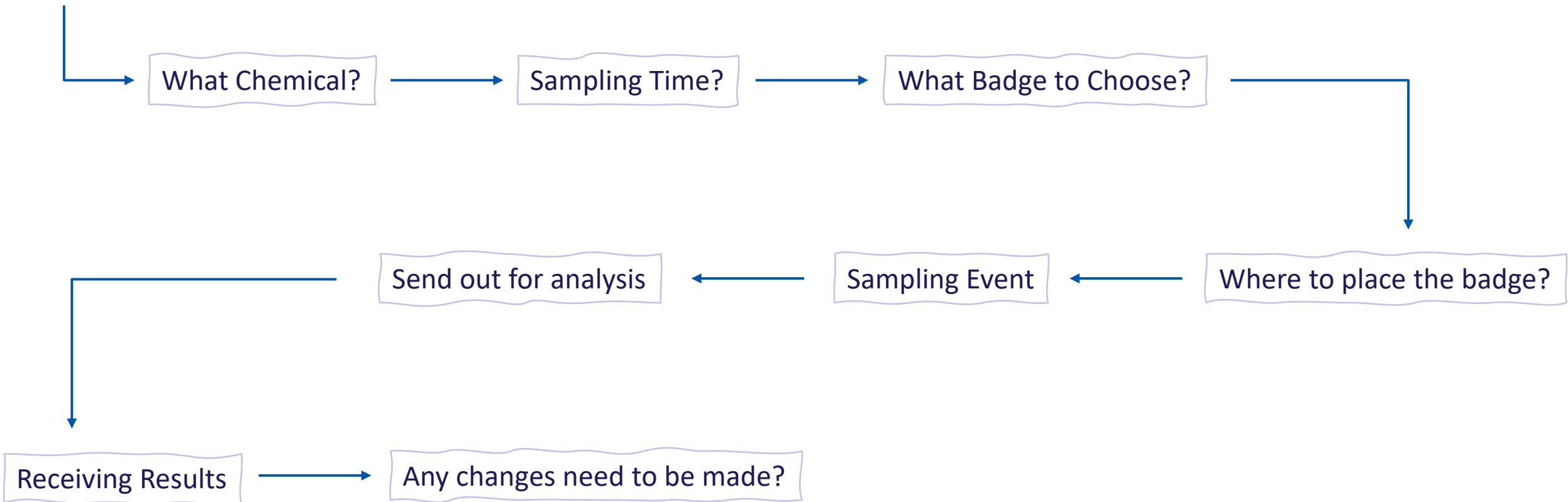
COMMON ISSUES AND MISCONCEPTIONS AROUND
PERSONAL AIR MONITORING BADGES AND HOW
BETTER TO USE THEM

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WORKFLOW DIAGRAM FOR SAMPLING



Industrial Hygienist Needs to do some Sampling!



WHAT CHEMICAL ARE YOU SAMPLING FOR?

- Known chemical

- Easy
- Know what to look for

E.g

Benzene
OV Badge

E.g

Paint Thinner
MF SDS

- Known mixture

- Medium
- Take individual components - SDS
- Multiple badges?
- All in one?

E.g

Manufacturing
with various
processes

- Unknown chemical/mixture

- Difficult
- Rely on SDS of chemicals for known procedures
- Narrow group of chemical
 - Acid, Base, Organic Vapor

- Common Misconception: All organic vapors can be sampled on the same badge
 - NOT TRUE

HOW LONG WILL YOU BE SAMPLING FOR?

- STEL – 15 mins
- Full work shift: 8-12 hrs
- Something in between
- ≥ 24 hrs – Indoor air quality
- Sampling time may impact which badge you need to choose for your sampling event

E.G Acetone

- Manufacturer recommends the badge with a 19 hole sampling grid due to high volatility and high PEL of acetone
GOOD FOR FULL WORK SHIFT MONITORING
- Manufacturer recommends their badge with a faster sampling rate if doing STEL monitoring for acetone
WILL ALLOW FOR A LOWER REPORTING LIMIT IF USING A HIGHER SAMPLING RATE BADGE

- Common Misconception: Reporting limit and sampling time are not related
- NOT TRUE

WHAT BADGE SHOULD YOU CHOOSE?

- Research on manufacturer's website for more details
 - Capacity
 - Reporting limit
 - Lab for analysis
 - Recommended hold time

PSA – READ ALL TECHNICAL DOCUMENTS BEFORE SAMPLING EVENT



- Common Misconception: Badges must be OSHA approved
- NOT TRUE

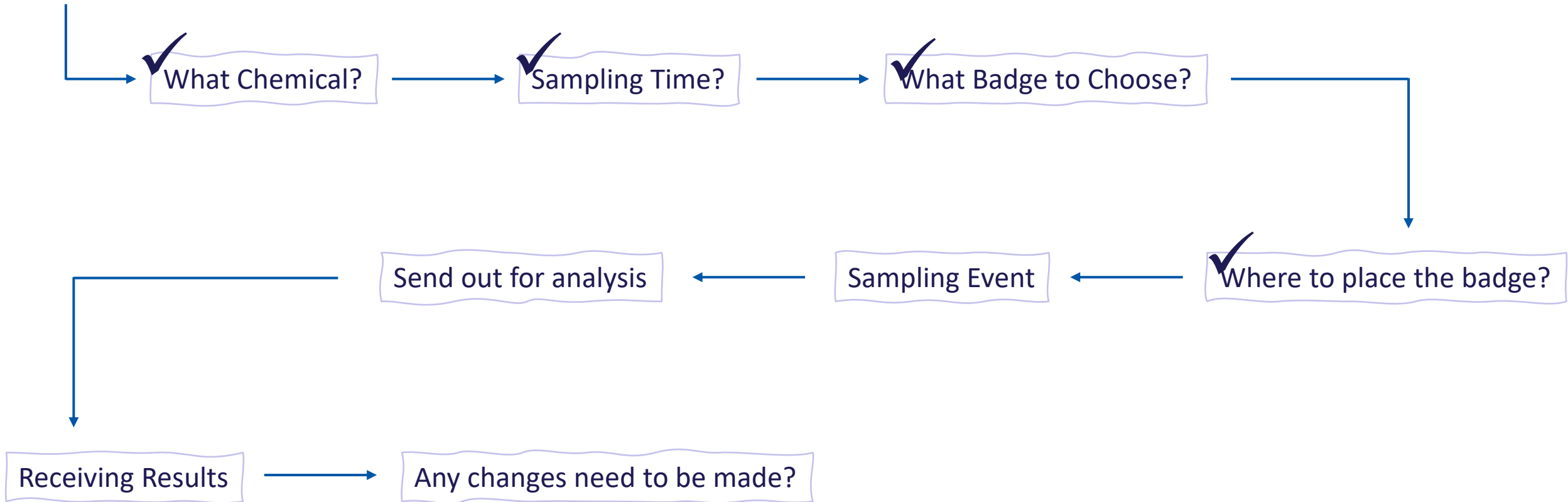
WHERE WILL YOU BE SAMPLING?

- On a person
 - ↳ - within 12" breathing zone
- In a room
 - ↳ - need adequate air movement
- Manufacturer's Recommend Air Velocity:
 - Can find this in technical documents
 - 15 – 150 cm/sec
- Common Misconception: Monitoring under any conditions is fine
 - NOT TRUE

WORKFLOW DIAGRAM FOR SAMPLING - REVIEW

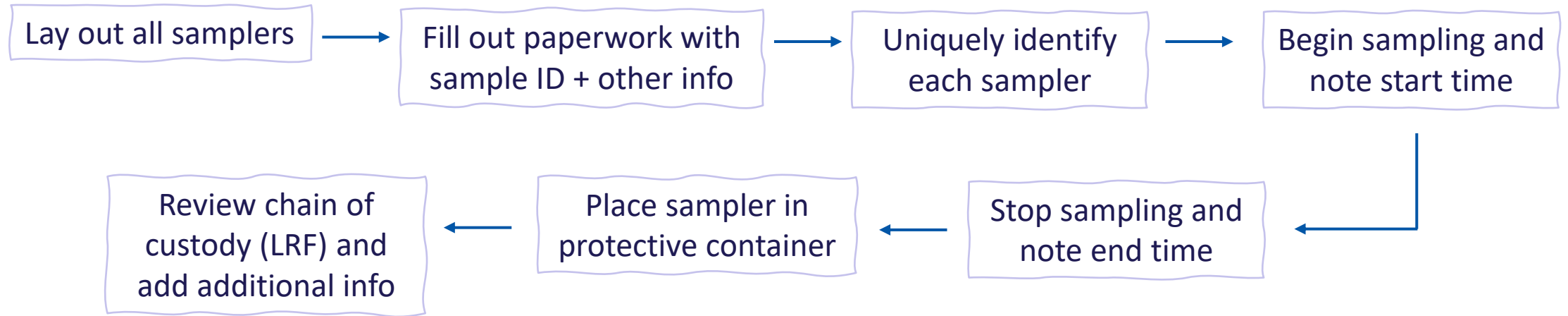


Industrial Hygienist Needs to do some Sampling!



THE SAMPLING EVENT

- You need a good workflow BEFORE sampling



PSA – Fill out all relevant fields of the lab request form

- Common Misconception: Don't need to do prep work before sampling because its so easy
- NOT TRUE

SENDING SAMPLE OUT FOR ANALYSIS

- Where is decided during **What Badge to Choose?** step
- Normally, 2 options
 - Purchase the badge with lab analysis – Lab is pre-selected
 - Purchase the badge and choose a lab to send it to



- Be familiar with method lab will use before submission of badge for analysis

- Common Misconception: Lab method needs to be OSHA/NIOSH/ASTM approved

- NOT TRUE

RECEIVING THE RESULTS

- Receiving results – via email
- Lab report will contain:
 - Results as mg/M3 and/or ppm
 - Sample details – sample id, sampling time
 - Additional notes
- What to do if there is an error on the lab report?
 - Contact the lab: Can issue a revised report
- Not all lab reports are equal

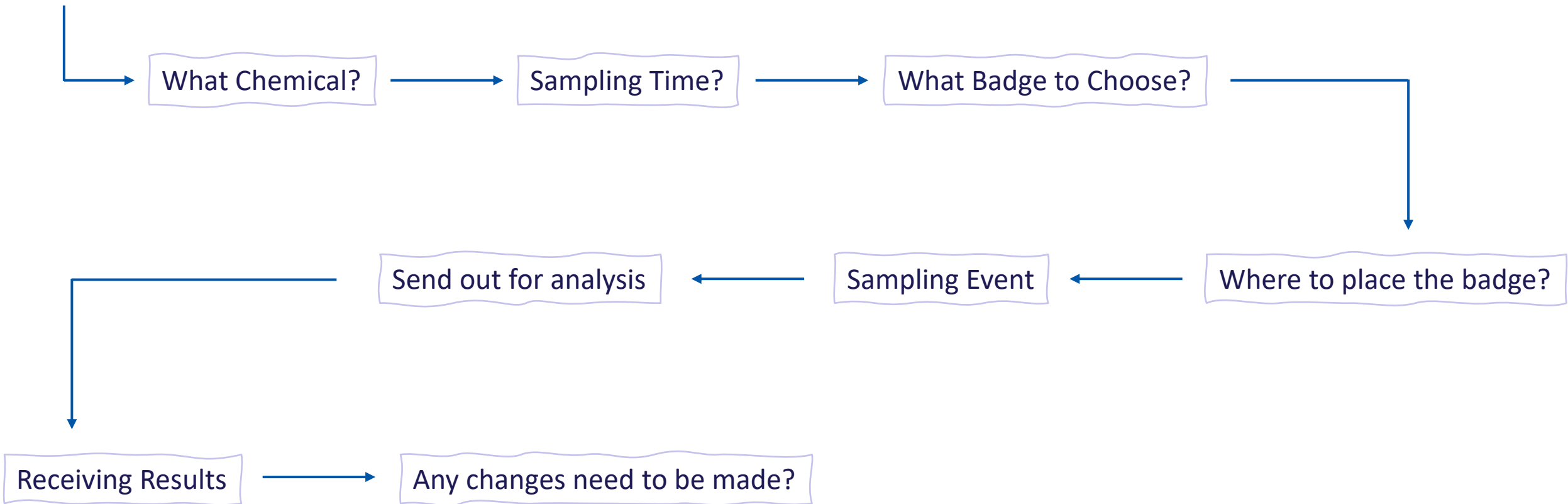
Do changes need to be implemented after sampling?

- Common Misconception: The lab assigns a pass/fail to results according to regulatory limits
- NOT TRUE

WORKFLOW DIAGRAM FOR SAMPLING - REVIEW



Industrial Hygienist Needs to do some Sampling!



KEY TAKEAWAYS:

- Do your research before your sampling event
 - Read manufacturers technical documents
 - Have a good workflow established before sampling event
 - Fill out entire lab request form
 - Up to CIH to interpret lab results
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- If you need additional help: Contact lab/manufacturer with questions.



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