



What's your Band? *We don't care*

For effective containment, a specific destination is more important to us than a general location.

Control Banding and Risk Assessment

The best kept secret in pharmaceutical containment procurement

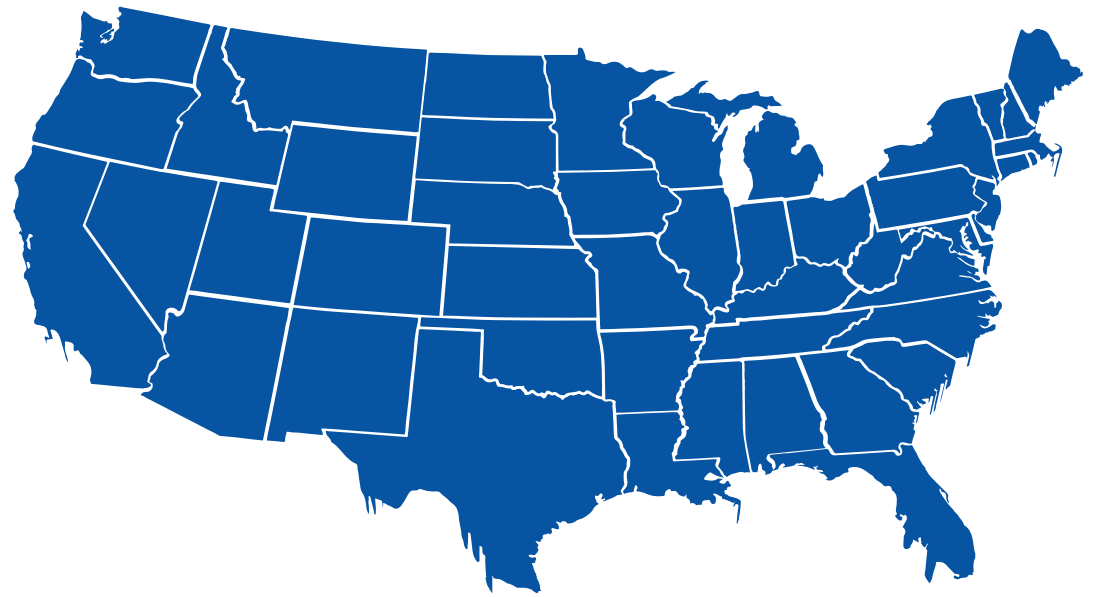
Every single containment solution, from every single any manufacturer, works 100% of the time until you add:

1. Your people
2. Your process
3. Your product
4. Your facility
5. Your budget



You Need Containment

- There's an AIHCE Conference being held between May 23-25
- The location of the meeting is within the contiguous United States



You Have a Banding System

- The AIHCE conference will take place in Tennessee

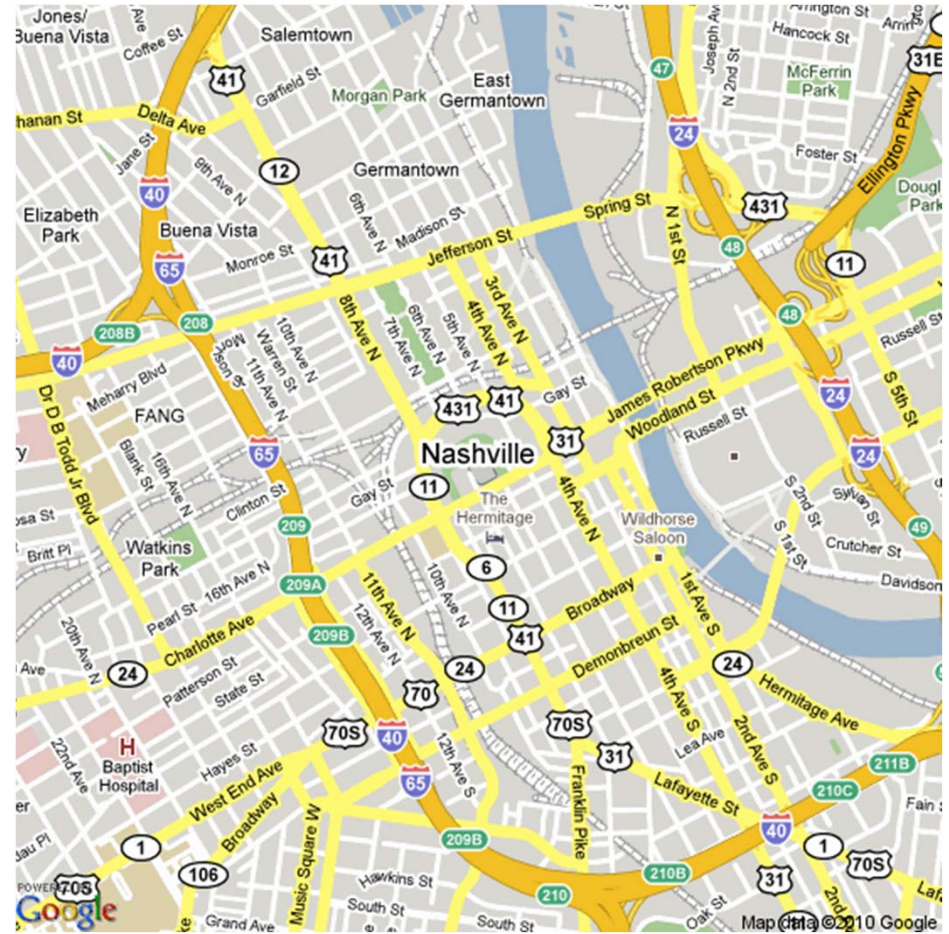


Your compounds are OEB 4

- The conference is in a major city in Tennessee

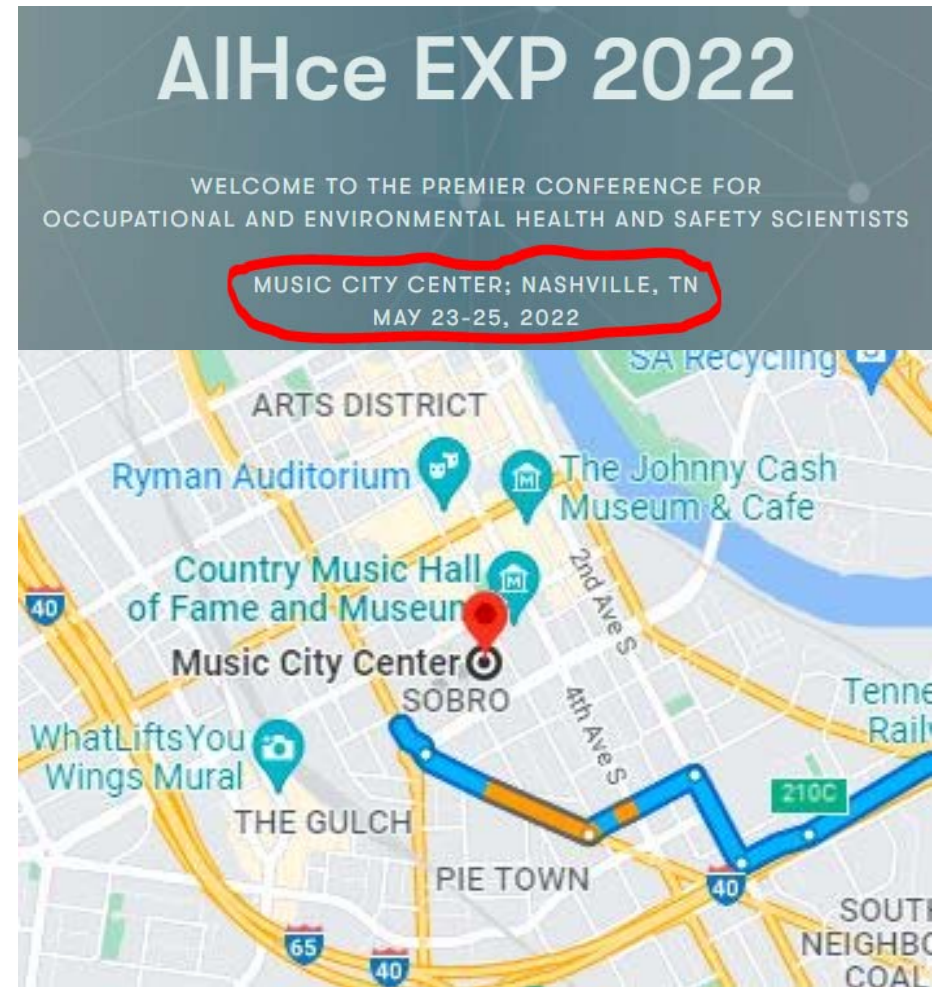
Your OEB 4 band covers compounds $0.1-1\mu\text{g}/\text{m}^3$

- The conference is in a Nashville



CPT < 500ng/m³

- The conference will be held at the Music City Center; Nashville, TN.
- Okay – We have the destination
- Now – Let's get you there



Control Banding and Risk Assessment

The best kept secret in pharmaceutical containment procurement

Every single containment solution, from every single any manufacturer, works 100% of the time until you add:

1. Your people
2. Your process
3. Your product
4. Your facility
5. Your budget



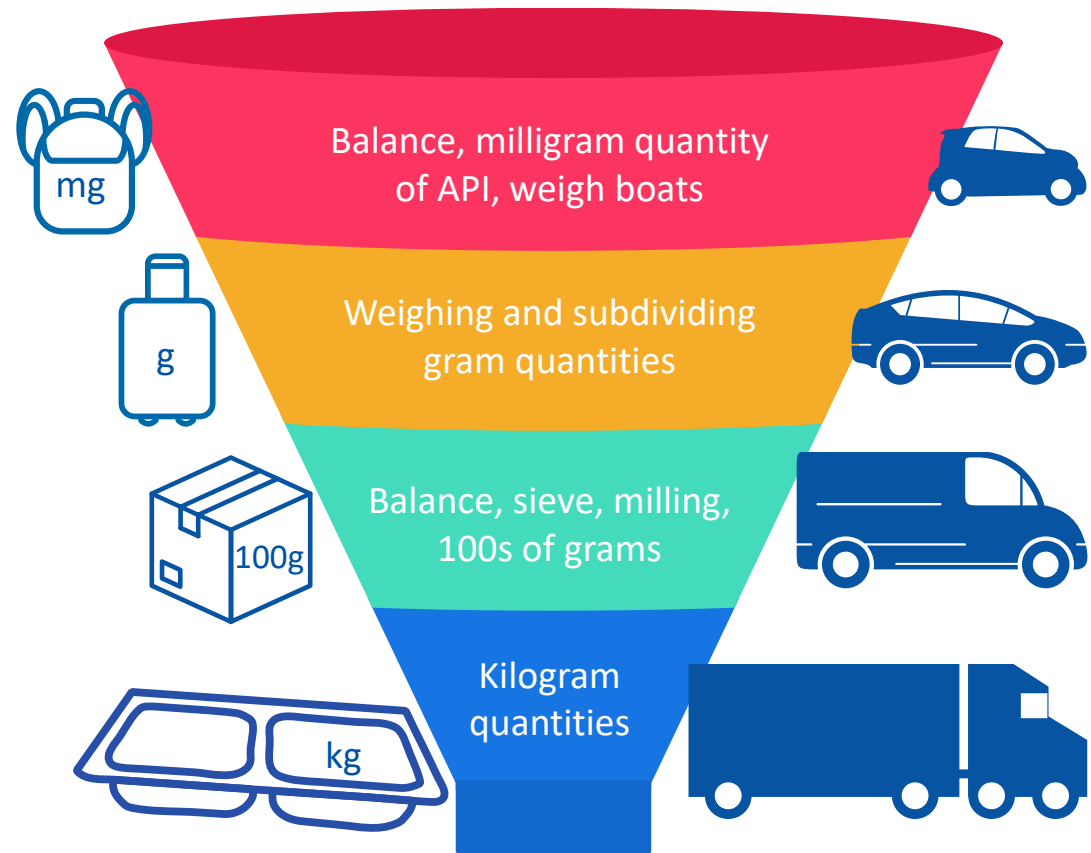
Banding Categories

Inconsistency across industry – every company has their own banding system

Category 1	Category 2	Category 3	Category 4
0.5mg/m ³ or more	0.5mg/m ³ -10µg/m ³	10µg/m ³ -30ng/m ³	30ng/m ³ or less
Limited irritating qualities and no permanent effects	Moderate to high acute systemic toxicity (cardiac or liver)	Mutagenetic or Carcinogenetic effects	Highly potent pharmacological activity Mutagenetic or Carcinogenetic effects
Good warning properties (odor threshold below toxic level)	May have poor or no warning properties	Poor or no warning properties	No warning properties
Open handling w/ well applied GLP and traditional control technology such as local exhaust ventilation	Basic process containment such as gravity feeding system, direct connections and/or custom designed local exhaust ventilation at emission points	Prohibits open handling and requires closed systems, direct connections, isolation and/or combinations (direct connections w/ local exhaust ventilation	Requires complete containment, closed systems and/or isolation

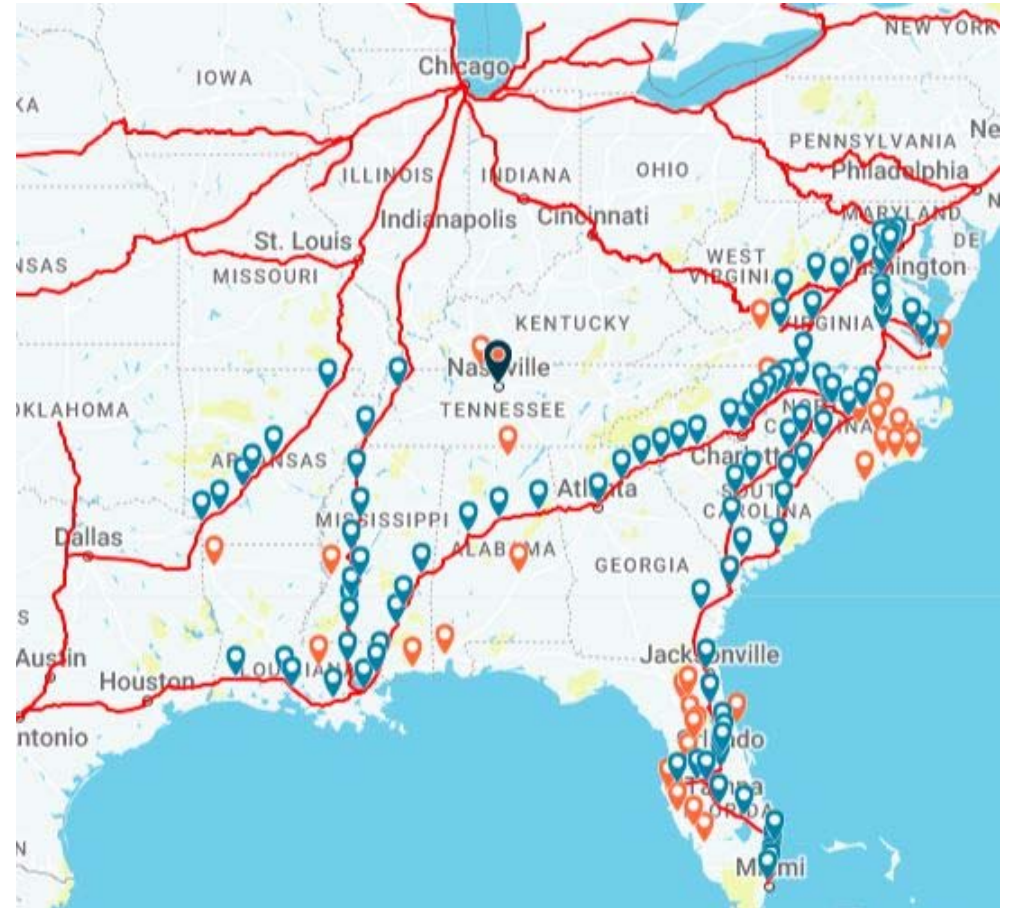
3 Factors That Affect Risk Assessment

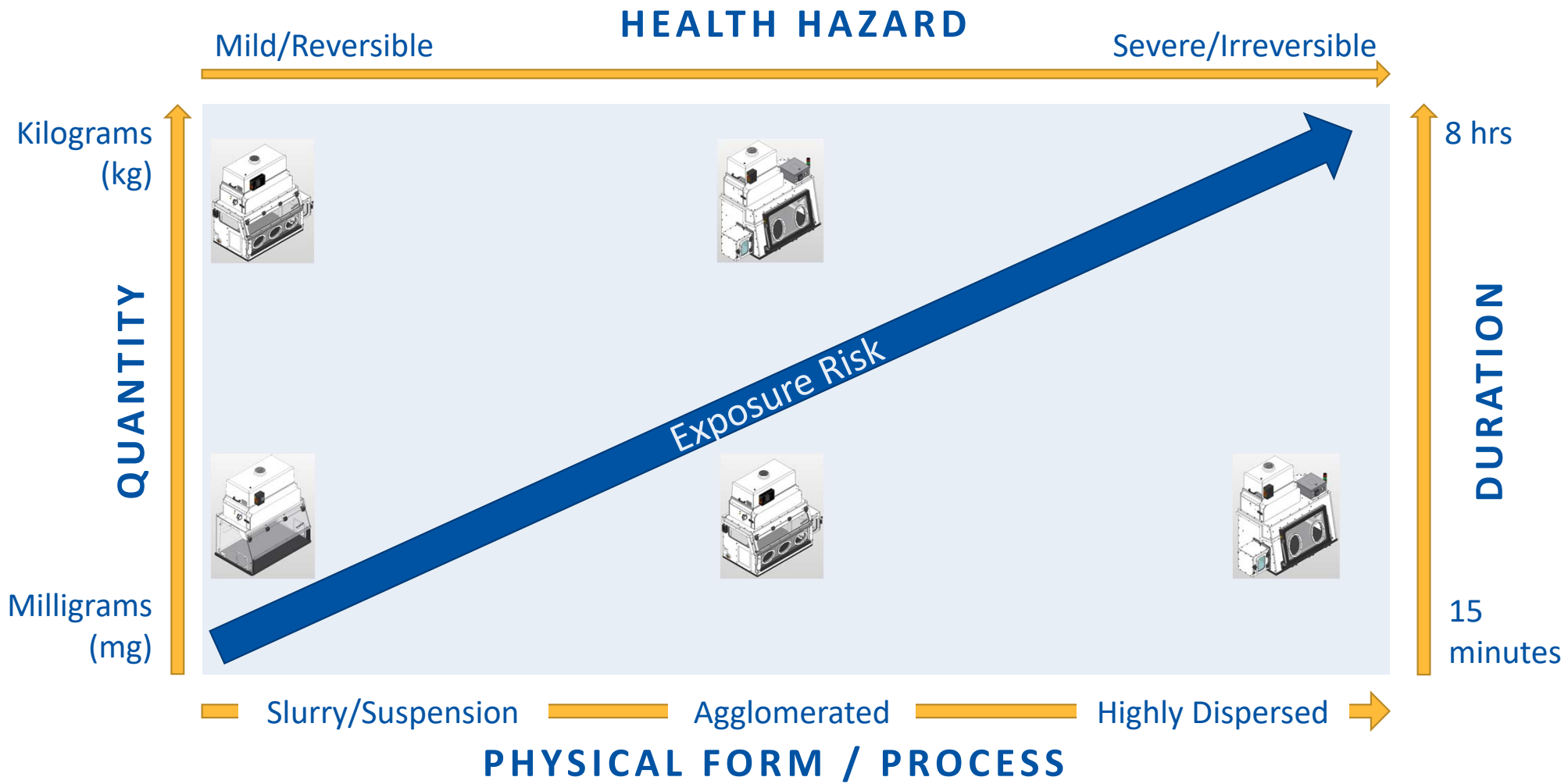
- **Where** – We have established where to go?
- **How** – How do we get you there?
- **What** – How much luggage do you have?



A Common Occurrence...

No luggage list, but we did get a URS instructing us to take Amtrak.





Case Study - Design

Personnel Protection

OEB 5 compounds ($<30 \text{ ng/m}^3$)

CPT – 10 ng/m^3

Weighing and dissolution of 10s grams powder

Short duration of task ($\sim 30 \text{ min}$)

Ventilated area for secondary cleaning



Case Study - Results

Task	Quantity (Open Handling)	Result
Weighing	10g (n=6)	ND
Cleaning 1	N/A (n=6)	ND
Cleaning 2	N/A (n=6)	ND
Pour Test	50g (n=3)	ND
Cleaning	N/A (n=3)	ND
Spill (GB)	5g (n=1)	ND
Spill (Open)	5g (n=1)	ND



We got them to their destination, *and* we took their bags to their room.

Discovery Process

- The more information you can supply, the easier we will be able to deliver you to the correct destination.

CONTAINMENT SYSTEM DISCOVERY WORKSHEET

COMPANY
Name: _____ Phone: _____
Address: _____ Phone Number: _____
City/State: _____
Similar to TaskWich Enclosure or Standard Enclosure (Dry, Total, or Joint): _____

PROCESS
Briefly describe the process(es) to be contained: _____

CONTAINMENT
Substance to be Enclosed (Select all that apply):
 Powder Gas Other _____
Quantity of Substance: _____
Frequency of Use: _____
Personal Protection: YES NO
Product Protection: YES NO
Do you have an established cleaning procedure? YES NO
Additional Detail Requirements: _____
Desired Operating Conditions:
Airflow Rate: _____
Airflow Depth: _____
Internal Height: _____

EQUIPMENT
Attention Preference:
 Single Entry
 Dual Entry
 Caisson
 None
Additional Options (check all that apply):
 Vest Kit Drum Lift Double Side Waste Chute Washbasin Condensed Chlorine Kit
 Flexible Connection Access Doors Glove Ports Nitrogen HEPA Filter
 LED Lighting Pass Through Glove Pans PFC Ducts
 Amber Lighting Standard Waste Chute Bulk Powder Touchlight Control Panel

WWW.FLOWSCIENCES.COM **FLOW SCIENCES, INC.** 800.849.3429



Thank You

1-800-849-3429 | WWW.FLOWSCIENCES.COM | LELAND, NC