

Arthropod Containment: Facility Requirements and Operation Practices

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Arthropod Containment Guidelines

(Version 3.1)

www.astmh.org/SIC/files/ACGv31.pdf

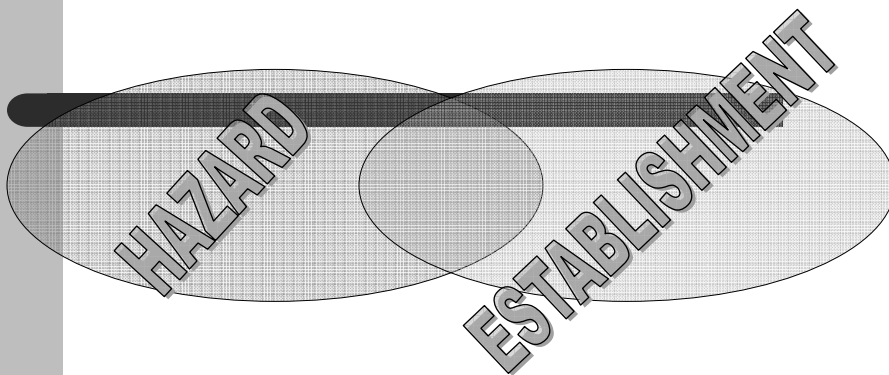
A project of the

The American Committee of Medical Entomology of the

American Society of Tropical Medicine and Hygiene

Risk Assessment

- Direct injury
 - Wasps, fire ants, bees
 - Severity from trivial to fatal
- Indirect injury
 - Infection through bite of vector
 - Allergy
- Establishment
 - Local hazard
 - Major change for region



Hazard

- Severity
- Treatability
- Prevention
 - Vaccination
 - Prophylaxis
- Unknown
 - Field collected
 - New pathogen
 - GMO



Establishment

- Arthropod
 - Threat to humans
 - Threat to animals
 - Threat to ecosystem
- Pathogen
 - Medical
 - Veterinary



Containment

- Seasonal
- Geographic
- Facility
- Intra-facility
- Laboratory
- Experiment



Arthropod Containment Levels

- ACL-1
 - Uninfected
 - Infected with non-pathogen
 - Native species
 - Geographically or seasonally restricted exotic



Measures

- Traffic avoidance
- Cleanliness
- Arthropod elimination/exclusion
- Containers
- Disposal
- General containment
- Monitoring
- Notification
- Blood source, feeding
- Escapes procedure
- Reporting
- Building barriers
 - Windows
 - Doors



ACL-2 (e.g. dengue, malaria)

- Arthropod infected with BSL-2 organism
- GMO arthropod
- Measures
 - More stringent containment
 - Limited access
 - Training
 - Medical surveillance
 - Safe transport in lab
 - HVAC and air curtains
 - Annual Evaluation



ACL-3 (e.g., WNV, Rift Valley)

- Arthropod infected with BSL-3
- More stringent microbiology
- Measures
 - Glove box in preference to cabinet
 - Inventory



ACL-4 (e.g., CCHF)

- Arthropod infected with BSL-4
- Measures
 - Minimalist approach
 - Practice by technician



Questions?

