

Transporting Critical Bio-Materials

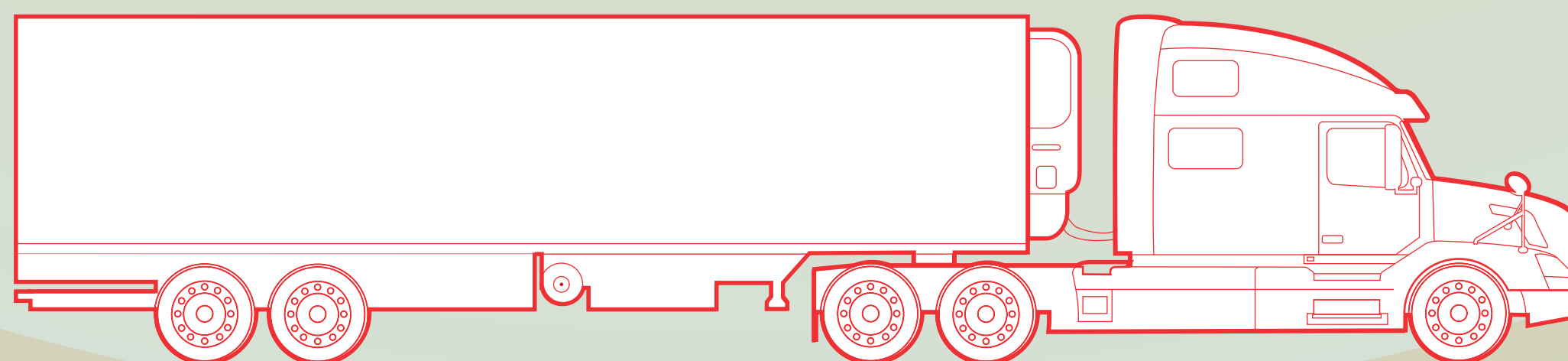
How do you safely move an irreplaceable research collection?

Materials to be Moved

Ambient

The Standard Option

Standard truck with mechanical refrigeration unit plus generator



Pros

- ▶ Sufficient for ambient transport
- ▶ One-way service offered; return service may not be required.

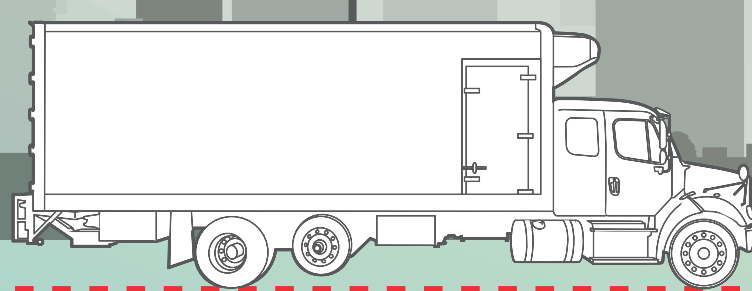
Cons

- ▶ Transporting refrigerators and freezers in operation adds significant risk of mechanical failure and voids warranty
- ▶ Risk of generator/refrigeration unit mechanical failure, no back-up
- ▶ Dry ice can result in pH shift in specimens, safety issues
- ▶ No on-board temperature monitoring
- ▶ Limited availability, no emergency service
- ▶ Drive service only—no packing/loading/unloading

Controlled Room Temperature (+15°C to +25°C)

Ask your transport provider..

Point A



Did the transport provider arrange all logistics, including permits?

Was in-transit temperature data provided?

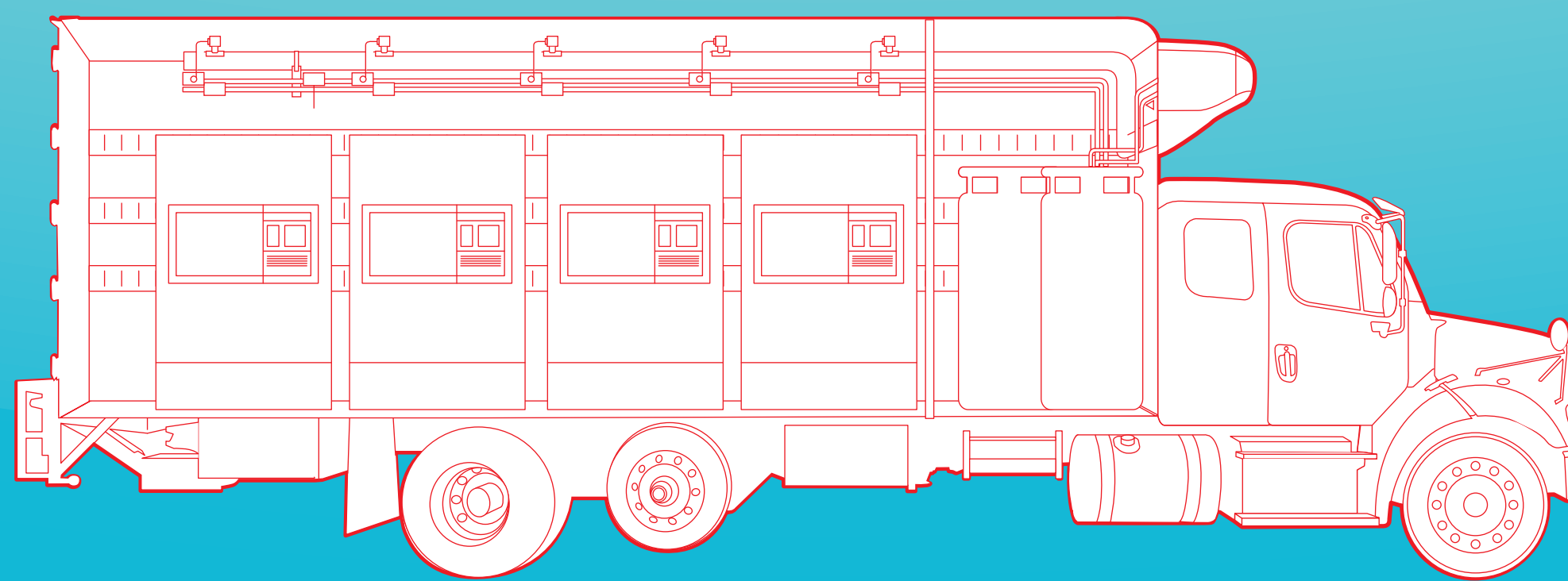
Were materials loaded, un-loaded, and inventory restored?

Ask your transport provider..

Refrigerated (+2°C to +8°C)

Fisher BioServices Specialized Cold Chain Logistics

Fisher BioServices' trucks, with LN₂ piping plus mechanical refrigeration units



Pros

- ▶ Superior risk mitigation (LN₂ system runs on batteries if needed)
- ▶ Superior temperature control
- ▶ No dry ice, no pH shift
- ▶ Equipment transported off
- ▶ Transport of equipment, specimens, supplies in the same trip
- ▶ On-board temperature monitoring, cold chain/chain of custody data
- ▶ Multiple-temperature transport at the same time
- ▶ Full service door-to-door packing, loading, unloading
- ▶ Dedicated transport, team drivers, trained in biological material handling

Cons

- ▶ Specialized transport may require return service from destination to point of origin

Frozen (-20°C)

Ultralow (-80°C)

Cryogenic (liquid nitrogen)

Ask your transport provider..

Was risk minimized?

Was the equipment re-validated following the move?

Were warranties on cold storage equipment preserved?

Point B

