EPI Tool Decommissioning Report

Tool Model: E3200
Report Type: Equipment
Decommissioning **Status:** Completed

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1. Purpose
This report documents the decommissioning activities performed on the EPI tool E3200. The objective was to safely remove the equipment from service, eliminate hazardous process residues, disconnect all utilities, and prepare the tool for transport and disposal/storage.

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2. Purging and Decontamination Activities
The following actions were completed to ensure the tool was free from hazardous gases and contaminants:

- Process chamber purged with nitrogen (N_2) for **148 hours**.
- Gas lines cycle-purged with nitrogen supplied from VNB for **24 hours**.
- Gas line contamination verification performed using gas sensors; results confirmed **no contamination detected**.
- Chamber, interior components, and exhaust assemblies removed.
- Lamps removed.
- Tool decontaminated by manual wiping and cleaning.

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3. System Shutdown
All operating systems and controllers were safely powered down:

- EHI PC shut down.
- Foxboro controller shut down.
- ASYST PC shut down.
- FEI system powered off.
- EPI controller powered off.
- Power module switched off.

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4. Component Removal and Preservation
The following components were removed and secured:
Bernoulli Wand

- Bernoulli wand removed from the system.
- Stored separately in a dedicated box protected with insulation foam.

Note:
Due to the absence of the original transportation packaging, no warranty can be provided regarding damage-free transport of the Bernoulli wand.
Additional Components

- FEI robot end effector removed.
- Aligner laser unit removed.
- Attached HEPA filter removed from FEI and scrapped.
- Purifier cabinet attic removed.
- Cleaned exhaust components stored inside the reactor module.

5. Utility Disconnection

Cooling Water

- Cooling water drained and purged from all lines.

Gas and Pneumatic Systems

- Gas supply lines disconnected.
- All disconnected gas lines blind-capped.
- Pneumatic nitrogen supply removed from the tool.
- N_2 line between WHC and reactor module disconnected.

Electrical Systems

- Customer interface connections disconnected.
- Tool power cables disconnected.
- Lamp cables disconnected.
- Interconnection cables between WHC and reactor module disconnected.

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6. Module Separation

The following separation activities were completed:

- FEI disconnected from WHC.
- FEI-WHC interconnection cables disconnected.
- Disconnected cables stored within the FEI housing.
- Gate valve clamps removed.
- WHC separated from the reactor module.

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7. Final Condition

The tool was successfully:

- Purged and verified contamination-free.
- Decontaminated.
- Powered down.
- Disconnected from gas, pneumatic, water, electrical, and communication services.
- Mechanically separated into transportable modules.
- Prepared for transport, storage, or disposal.

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8. Decommissioning Completion Statement

All decommissioning activities for the E3200 EPI Tool were completed in accordance with standard equipment shutdown, decontamination, and utility isolation procedures. The equipment was left in a safe condition for handling, transportation, or final disposition.