## Supplier shall:

## Provide the information in Sections 1 through 3 below, and if required, complete Sections 4 through 8, below.

## Ensure that persons responsible for decommissioning, decontaminating, and moving Equipment have received training or are by other means competent to perform their roles.

### If Sections 4 through 8, below, are required, perform Equipment decontamination using the following criteria:

|  |  |
| --- | --- |
| Decontamination Criteria | |
| **Hazard Type** | **Acceptable Decontamination Parameters** |
| Corrosives (pH) | pH = >5 - <9 (pH level must be between 5 and 9) |
| Fluoride Ion | Non-detect using fluoride test strip |
| Solvents/Photoresist | No free liquids, remove solids and residue as much as possible. Discoloration allowed (Visual Verification) |
| Arsenic | Less than 50 micrograms/100cm2 |
| Lead | Less than 200 micrograms/100cm2 |
| Magnetic Fields | 1. Does not exceed 0.418 A/m (0.00525 gauss), or  2. Produces a magnetic compass deflection of 2 degrees or less.  (Contact TI Logistics for more detail) |
| Coolants and Water | No free liquids (Visual Verification) |
| Phosphorus Compounds | No visible residue |

1. Attach an orange tag to the Equipment with the following information:

#### Origin site

#### Equipment description

#### Asset number (when known)

#### Comment

#### Transfer approval status

#### Hazard Information

##### Name

##### Signature

##### Date

## *Return a signed copy of the applicable sections of the completed Decontamination and Equipment Movement Checklist* *to a TI representative for approval* ***prior to delivery of the Equipment***.

|  |  |
| --- | --- |
| Section 1: Supplier Contact Information | |
| Contact Name |  |
| Contact Phone Number |  |
| Contact Email Address |  |
| Current Date |  |
| Department/Module |  |

|  |  |
| --- | --- |
| Section 2: Equipment Information | |
| Manufacturer |  |
| Model |  |
| Part Number |  |
| Asset No. |  |
| MISTI ID No. |  |
| Equipment Description |  |
| Date of Decommission |  |

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| --- | --- | --- | --- | --- |
| Section 3: Equipment Potential Hazards Information | | | | |
| **Description** | **YES** | **NO** | **NA** | **Initial** |
| Has the Equipment been exposed to hazardous chemicals or materials or wet chemicals (including byproducts)? |  |  |  |  |
| Does Equipment contain any radioactive material or components capable of producing ionizing or laser radiation? |  |  |  |  |
| If the Equipment contains radiation source or laser, list type and class. |  | | | |
| Does the Equipment contain refrigerant? |  |  |  |  |
| If the Equipment contains refrigerant, what type of refrigerant (i.e. R-22, R-134a, etc.) amount in pounds and pressure? |  | | | |
| Does the Equipment contain Cryo pumps/compressors? |  |  |  |  |
| If the Equipment contains Cryo pumps/compressors list gas type, amount, and pressure. |  | | | |
| Does Equipment contain magnets (electro, fixed, etc.) capable of creating/emitting a magnetic field outside the confines of the equipment that may be a hazard during movement (e.g., interfere with airplane instruments, pacemakers, etc.)? |  |  |  |  |
| Does Equipment contain any mercury (switches, relays, lights etc.)? |  |  |  |  |
| Does Equipment contain compressed gases (vessels, cylinders, fire control systems, etc.)? |  |  |  |  |
| Are there any batteries that are not properly packaged/secured/labeled according to shipping requirements? |  |  |  |  |
| If the Equipment contains batteries, what type (lead acid, lithium, etc.) and how many? |  | | | |
| Does Equipment contain asbestos? |  |  |  |  |
| Does the Equipment have any potential hazardous energies remaining (i.e, stored electrical, mechanical, pneumatic, parts that may move during transport, etc.)? |  |  |  |  |
| List potential hazardous energies (i.e. stored electrical, mechanical, or pneumatic energy, etc.) |  | | | |
| Is there any damage, unclean areas, oils, liquids, process byproducts, contaminates or other potential hazards? |  |  |  |  |
| Are any gas/chemical lines not properly and mechanically capped/plugged and tight/secure (Including water lines)? |  |  |  |  |
| Are any process exhaust lines and drains not mechanically capped/plugged and tight/secure? |  |  |  |  |

**If you answered “Yes” to any question in Section 3**, complete the remaining sections of this checklist. Hazards identified in this section may require special shipping instructions. Supplier must determine proper packaging, labeling and shipping methods.

**If you answered** “**No**” **or** “**NA**” **to all questions** **in Section 3**, sign below and place a completed Orange Tag on the Equipment. The remaining sections are not required.

Supplier Signature: Date:

|  |  |  |  |
| --- | --- | --- | --- |
| Section 4: Hazardous Materials Information | | | |
| **Description** | **YES** | **NO** | **Initial** |
| Has Equipment been exposed to hazardous materials? If “Yes” then list all hazardous chemicals/gasses used. |  |  |  |
| Corrosives |  | | |
| Solvents |  | | |
| Lead |  | | |
| Arsenic |  | | |
| Other Toxics/Pyrophorics |  | | |

|  |  |
| --- | --- |
| Section 5: Equipment Decontamination Verification | |
| Explain activities performed to minimize/eliminate the amount of hazardous substances residuals/byproducts in or on the Equipment (Wet cleaned, cycle purged, kit change, neutralized, oil drained, etc) |  |
| Describe the verification procedure used to determine if decontamination was successful (visual inspection, wipe samples, pH test, air monitoring etc…). |  |
| List areas of the equipment that may still be contaminated or contain residual gasses/chemicals? (Ensure proper containment is in place to prevent accidental release) |  |
| List remaining contaminates by type and amount. (Process byproducts, Gasses, Chemicals) |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Section 6: Decontamination (wipe and pH) Sample Results | | | | | | | | |
| **Sample #** | **Location** | | **Method** | | | **Results** | | |
| Example | Chamber A Reactor | | pH Test Strips | | | pH7 | | |
| Example | Implant Beam Line | | Wipe Sample | | | 10µg/100cm2 | | |
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| Section 7: Equipment Decontamination and Safe State Checklist  Note: For any box checked “No” you must provide an explanation in the space provided in the comments section at the bottom of this Section 5.  Note: Mechanically capped/plugged refers to fitting, flanges, other devices that will remain secure and prevent leakage of residual liquids, gasses, or by-products that remain in the Equipment. (e.g. Swagelok, VCR, KF flange caps, etc…). These caps or plugs must be constructed of a material compatible with chemicals/gasses and materials used in or on the Equipment. | | | | | | | |
| **Description** | | **YES** | | **NO** | **NA** | | **Initial** |
| Has Equipment received thorough cleaning (e.g. Wet clean, Kit Change, Wipe down, etc)? | |  | |  |  | |  |
| Have all Non-Hazardous (Inert) gasses been evacuated/purged and disconnected from the Equipment and lines mechanically capped/plugged? | |  | |  |  | |  |
| Have all Hazardous gasses been evacuated, cycle purged and disconnected from the Equipment and lines mechanically capped/plugged? | |  | |  |  | |  |
| Have all chemical baths and tanks been drained, flushed and dry? | |  | |  |  | |  |
| Have all chemical lines been drained, flushed, dry and mechanically capped/plugged? | |  | |  |  | |  |
| Have all associated support equipment been purged, drained and flushed accordingly and lines mechanically capped/plugged? | |  | |  |  | |  |
| Have all water lines (e.g. DI, PCW, Coolant, Chilled) been drained, purged and mechanically capped/plugged? | |  | |  |  | |  |
| Have all process exhaust lines, drains or other outlets been cleaned, flushed and mechanically capped/plugged? | |  | |  |  | |  |
| Have all stored or potentially hazardous energies (e.g. Electrical, Pneumatic, Hydraulic, Mechanical, Magnetic, etc.) been dissipated or controlled in a safe state to prevent release? | |  | |  |  | |  |
| Have parts separated from the equipment been appropriately cleaned/decontaminated? | |  | |  |  | |  |
| Are contaminated parts being sent to external vendor for cleaning double bagged, packaged and labeled with hazard identification? | |  | |  |  | |  |
| Have pumps (Process, Turbo) been purged and wiped down and mechanically capped/plugged? | |  | |  |  | |  |
| Comments: | | | | | | | |

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| --- | --- | --- | --- | --- |
| Section 8: Equipment Final Inspection | | | | |
| **Description** | **YES** | **NO** | **NA** | **Initial** |
| Documentation is complete and satisfactory including methods of decontamination and verification of effectiveness? |  |  |  |  |
| Equipment information has been communicated with logistics for proper shipping and documentation? |  |  |  |  |
| Final inspection has been completed according to the following?   1. Equipment appears undamaged and complete. (Document any discrepancies including photographs.) 2. All areas appear clean and free of liquids, process byproducts, other potential hazards. 3. All gas/chemical lines are mechanically capped/plugged and tight/secure (Including water lines). 4. All process exhaust lines and drains are mechanically capped/plugged and tight/secure. 5. Surface areas are free of dirt, grime, oils, other contaminates. |  |  |  |  |
| Comments: | | | |
| Orange Tag has been securely fastened to each tool/equipment including support equipment? |  |  |  |  |
| Notes:   * Include a copy of this checklist in the main crate for receiving site to review. * Ensure that any remaining hazards are noted and include applicable Safety Data Sheet (SDS) with the worksheet. | | | | |

Supplier Signature: Date: