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SAMPLE
3D Printers in Residential Halls Policy and Procedure

Policy Owner: Environmental Health and Safety (EHS)

Institution: _____

Effective Date: _____

Approved By: _____

Review Cycle: _____

1. Purpose

This policy establishes requirements for the possession, installation, and operation of three-dimensional (3D) printers within college or university residential facilities. 3D printers can introduce fire, electrical, thermal, mechanical, chemical, and indoor-air-quality hazards, including emissions of ultrafine particles and volatile organic compounds during some printing processes. Risks may be elevated in residential occupancies because occupants sleep in the building, combustible contents are common, and printers may operate for extended periods without continuous observation. The purpose of this policy is to reduce those risks through designated locations, prior review, user training, equipment controls, ventilation assessment, housekeeping expectations, and clear enforcement procedures.

2. Scope

This policy applies to students, faculty, staff, visitors, Residence Life personnel, student organizations, academic programs, and all institution-owned, student-owned, or organization-owned 3D printers within residence halls, residential colleges, student apartments, suites, fraternity/sorority housing under institutional control, and associated common or support spaces. It applies to printers whether actively operating, temporarily stored for later use, loaned to another resident, or used for academic, research, entrepreneurial, hobby, club, or personal purposes. Where a residential space is also used for academic or makerspace activity, the more protective requirement shall apply unless EHS approves an alternative in writing.

3. Policy

3D printers shall not be operated in individual student bedrooms, suites, apartments, corridors, storage rooms, lounges, lobbies, or other unapproved residential locations. Printing is permitted only in designated makerspaces, laboratories, or other locations reviewed and approved by EHS before use. Approval must consider building occupancy, available ventilation, fire protection, electrical capacity, printer technology, materials, operating schedule, supervision, access control, emergency procedures, and housekeeping. EHS is the approval authority for residential 3D-printing locations, equipment, materials, and special operating conditions, and may suspend printing when conditions are unsafe or no longer match the approved use.

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4. Permitted Equipment and Materials

FDM/FFF printers using commercially manufactured common thermoplastic filament may be considered for approved makerspaces when the equipment is maintained according to manufacturer instructions and has appropriate safety features. Common materials may include PLA, PETG, ABS, ASA, TPU/TPE, nylon, polycarbonate, and similar commercial filaments; however, higher-temperature, odor-producing, composite, abrasive, or specialty filaments may require additional controls. Manufacturer instructions, safety data sheets, operating temperature limits, and maintenance requirements shall be followed. Resin/SLA/DLP, powder-bed, metal, industrial, custom-built, substantially modified, or other higher-hazard systems require specific EHS review and written approval before purchase, installation, storage, or operation in a residential facility.

5. Location Requirements

Approved locations shall not obstruct a means of egress; shall maintain required clearances from sprinklers, detectors, fire alarm devices, electrical equipment, exits, and combustible storage; shall provide stable suitable work surfaces; and shall be accessible to authorized Residence Life, Facilities, Fire Safety, and EHS personnel. Printers should be placed on sturdy, level, heat-resistant surfaces with sufficient clearance for airflow, maintenance, filament movement, and emergency shutdown. Locations should allow staff to observe or inspect equipment without entering private living areas and should include posted operating rules, emergency contacts, and shutdown instructions.

6. Fire and Life Safety

Required fire alarm, detection, sprinkler, and egress systems shall remain fully functional and unobstructed. Required fire doors shall not be propped open, disabled, or altered to support printing activity. Appropriate portable fire extinguishers shall be maintained in or near approved spaces as determined by EHS, Fire Safety, or Facilities. Combustible storage and waste shall be controlled around printers and power supplies, and cardboard, paper, aerosol products, cleaning solvents, fabric, decorations, and other readily ignitable materials shall be kept away from hot components. Printers showing smoke, charring, repeated thermal errors, unusual odor, overheating, or damaged wiring shall be stopped and removed from service pending review.

7. Electrical Safety

Printers and associated equipment shall be appropriately listed or approved when commercially available and maintained according to manufacturer instructions. Equipment shall be connected directly to a permanent receptacle or to an approved, properly rated relocatable power tap when allowed by EHS or Facilities. Extension cords shall not be used as permanent wiring, and daisy chaining of relocatable power taps is prohibited. Damaged cords, plugs, receptacles, power supplies, control boards, heaters, or user-modified electrical components shall be removed from service. Facilities or EHS may require an electrical-load evaluation where multiple printers, heated beds, enclosures, dryers, curing stations, ventilation equipment, or other accessories are installed.

8. Ventilation and Indoor Air Quality

EHS shall evaluate ventilation needs based on printer technology, number of printers, materials, operating temperatures, room volume, operating duration, occupancy, proximity to sleeping areas, and existing mechanical ventilation. EHS may require enclosures, local exhaust, filtration, increased ventilation, direct exhaust to the exterior, material restrictions, limited operating hours, or other engineering controls. Odor alone is not a reliable indicator of exposure risk, but persistent objectionable odors, visible emissions, irritation, headaches, respiratory complaints, or other indications of inadequate ventilation require printing to stop pending evaluation. Filtered or exhausted systems shall be maintained according to manufacturer instructions, and filter replacement schedules should be documented by the space manager.

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9. Operating Procedures

Only authorized users may operate printers. Users shall receive training appropriate to the equipment and materials, including startup, normal operation, job monitoring, emergency shutdown, fire prevention, hot surfaces, moving parts, pinch points, electrical safety, material handling, ventilation, housekeeping, waste disposal, and emergency reporting. Safety devices, thermal protection, guards, interlocks, firmware protections, and enclosures shall not be bypassed. Users shall inspect equipment before use, confirm the correct material and settings, remain within approved operating conditions, and stop the print if the printer behaves unusually or the surrounding space becomes unsafe.

10. Unattended and Overnight Operation

Unattended printing shall be minimized and is prohibited unless specifically approved under an EHS-reviewed procedure. Long-duration or overnight printing may require an enclosed printer, automatic thermal shutdown, functioning fire detection, remote monitoring, automatic power disconnect, sprinkler protection, restricted materials, job-duration limits, or other controls as determined by EHS. Remote cameras do not replace required fire protection or staff accountability. Approved unattended or overnight procedures shall specify who is responsible for the print, how problems will be detected, when the space will be checked, when the print must be stopped, and how emergency notifications will be made.

11. Material Storage and Housekeeping

Filaments, resins, powders, solvents, adhesives, cleaning supplies, and other materials shall be stored according to manufacturer recommendations and applicable safety data sheets. Only reasonable quantities needed for near-term use should be maintained in residential facilities. Failed prints, supports, filament scraps, cardboard, packaging, paper, wipes, gloves, and other waste shall be routinely removed to prevent combustible accumulation. Materials shall not obstruct exits, sprinkler discharge, fire alarm devices, ventilation equipment, or electrical working clearances. Resin, solvent, powder, or chemically contaminated waste shall be managed under EHS-approved procedures and shall not be discarded in normal trash or sinks unless specifically allowed.

12. Prohibited Activities

Prohibited activities include operating printers in student rooms or other unapproved locations; blocking egress or fire protection systems; bypassing safety devices; disabling alarms or interlocks; unauthorized electrical, firmware, heater, enclosure, ventilation, or power-supply modifications; open-flame processes; unapproved hazardous powders, resins, solvents, or chemicals; use of combustible or reactive materials without approval; storage of printer supplies in mechanical or electrical rooms; and operation contrary to manufacturer instructions, training, posted rules, or an EHS restriction. Printers may not be used to produce items that violate institutional policy, housing rules, applicable law, or other safety and conduct requirements.

13. Personally Owned Printers

Personally owned printers shall not be operated in student residential rooms, suites, or apartments. If a residential makerspace allows personally owned equipment, the printer must be registered, inspected, and approved under procedures established by EHS and the makerspace operator before use. Approval may require documentation of manufacturer, model, serial number, electrical rating, safety features, approved materials, operating limits, and maintenance history. Personally owned printers must follow the same access, training, supervision, ventilation, electrical, housekeeping, and enforcement requirements as institution-owned equipment, and approval may be withdrawn at any time.

14. Responsibilities

EHS reviews and approves locations, equipment, materials, ventilation, and special controls; conducts or coordinates inspections; evaluates incidents and near misses; and may remove unsafe equipment from service. Residence Life

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communicates and enforces residential restrictions, supports inspections, responds to unauthorized use, and refers technical safety issues to EHS. Facilities and Fire Safety support electrical, ventilation, detection, sprinkler, extinguisher, and building-code evaluations. Makerspace managers maintain approved equipment inventories, access controls, training records, operating procedures, housekeeping, maintenance logs, and incident reporting. Users follow approved procedures, operate only within authorized conditions, keep work areas orderly, and immediately report unsafe conditions, equipment damage, odors, smoke, overheating, injuries, spills, or near misses.

15. Inspection and Enforcement

EHS, Residence Life, Campus Fire Safety, Facilities, and other authorized personnel may inspect residential makerspaces, approved common areas, storage areas, and suspected unapproved printing locations consistent with institutional policy. Inspections may occur before approval, periodically during operation, after equipment or material changes, after complaints, and after incidents or near misses. Unsafe equipment may be removed from service immediately. Unauthorized operation may result in immediate disconnection, removal from the residence hall, suspension of makerspace privileges, housing action, student conduct referral, cost recovery for damage or remediation, or other action under institutional policy. Reinstatement may require corrective actions, retraining, reinspection, and written EHS release.

16. Emergency Procedures

For smoke, flames, significant overheating, electrical arcing, burning odor, chemical spill, resin exposure, ventilation failure, injury, or other indication of fire or unsafe operation: stop the printer if it is safe to do so; disconnect power only if safe and consistent with posted procedures; activate the fire alarm when appropriate; evacuate when required; call 911 or the campus emergency number; and report the incident to EHS, Residence Life, and the makerspace manager. Users shall not attempt to fight a fire unless trained, provided with an appropriate extinguisher, and able to do so without delaying evacuation. Equipment involved in a significant incident shall remain out of service, undisturbed when possible, and secured until reviewed and released by EHS.

17. Exceptions

Exceptions require written EHS approval before the activity begins. Requests should identify the location, printer manufacturer/model, technology, materials, operating schedule, users, supervision plan, ventilation, fire protection, electrical supply, emergency procedures, storage plan, and proposed controls. Approval may be time-limited, location-specific, equipment-specific, material-specific, and subject to inspection or additional conditions. Exceptions may be withdrawn when conditions change, controls are not maintained, incidents occur, or the exception no longer aligns with institutional risk tolerance.

18. Policy Review

EHS shall periodically review this policy based on changes in technology, incident experience, user feedback, applicable codes and standards, manufacturer guidance, recognized environmental health and safety practices, and changes to residential facility use. The review should consider whether approved locations remain appropriate, whether materials or printer types have changed, whether ventilation and fire protection remain adequate, and whether training, inspection, and enforcement practices are effective. Policy revisions should be coordinated with Residence Life, Facilities, Campus Fire Safety, academic partners, makerspace managers, and other affected stakeholders.

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Appendix A — Residence Life & EHS 3D Printer Policy Decision Checklist

This appendix shall be completed jointly by Residence Life, Environmental Health and Safety, Facilities, and Campus Fire Safety before adopting, revising, or approving a residential 3D-printing program. The checklist is intended to document the institution's risk posture, approval conditions, operational controls, and implementation responsibilities. Completion of this appendix does not constitute approval to operate a 3D printer unless all required review, inspection, and written approval steps have been satisfied.

Institution: _____

Residence Life Representative: _____

EHS Representative: _____

Facilities/Fire Safety Representative: _____

Date: _____

A1. Overall Campus Approach

Select the institutional approach that best reflects the level of residential access the campus is prepared to manage. The selected approach should consider fire and life safety risk, building configuration, available supervision, maintenance capacity, user training resources, and the institution's tolerance for residential operation. If more than one option is selected, the final policy shall clearly identify which option controls in the event of inconsistency.

☐ Prohibit 3D-printer operation throughout residence halls.

☐ Permit only in designated, EHS-approved makerspaces.

☐ Permit in designated residential common areas after EHS review.

☐ Permit in student rooms subject to defined safety restrictions.

☐ Require case-by-case approval for each printer and location.

A2. Ownership

Document whether each ownership category is permitted, limited to an approved makerspace, or prohibited. Ownership alone shall not determine safety acceptability; each printer must also satisfy applicable requirements for location, technology, material compatibility, electrical safety, training, inspection, and ongoing maintenance. Option	Permit	Makerspace Only	Prohibit

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Institution-owned	☐	☐	☐
Personally owned student	☐	☐	☐
Student organization-owned	☐	☐	☐

A3. Printer Technology

Evaluate printer technology based on the specific hazards associated with the process, including heat generation, moving components, emissions, chemical handling, powders, combustible dust, waste streams, maintenance needs, and manufacturer safety features. Higher-hazard technologies shall be prohibited in residential facilities unless EHS determines that adequate engineering, administrative, and emergency controls can be implemented and maintained. Option	Permit	EHS Review	Prohibit
FDM/FFF thermoplastic	☐	☐	☐
Enclosed FDM/FFF	☐	☐	☐
Open-frame FDM/FFF	☐	☐	☐
SLA/DLP resin	☐	☐	☐
SLS/powder bed	☐	☐	☐
Metal printing	☐	☐	☐
Industrial	☐	☐	☐
Custom-built	☐	☐	☐
Modified consumer	☐	☐	☐

A4. Materials

Review materials by trade name, generic material type, manufacturer instructions, safety data sheets, recommended processing temperatures, emission potential, storage requirements, and waste-management obligations. Materials not specifically authorized by the final policy shall be treated as prohibited until reviewed and approved by EHS. Option	Permit	EHS Review	Prohibit
PLA	☐	☐	☐
PETG	☐	☐	☐
ABS	☐	☐	☐

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ASA	☐	☐	☐
TPU/TPE	☐	☐	☐
Nylon	☐	☐	☐
Polycarbonate	☐	☐	☐
Composite filament	☐	☐	☐
Carbon-fiber-filled	☐	☐	☐
Wood-filled	☐	☐	☐
Photopolymer resin	☐	☐	☐
Combustible powders	☐	☐	☐
Metal powders	☐	☐	☐
Experimental/custom	☐	☐	☐

A5. Equipment Listing and Certification

Establish minimum equipment-acceptance criteria before purchase, installation, or operation. Commercially available equipment should be listed, labeled, or certified by a recognized testing laboratory when such certification exists for the equipment type. Unlisted, custom-built, modified, or repaired equipment shall require documented EHS review and may also require evaluation by Facilities or Campus Fire Safety.

☐ Require NRTL-listed/certified equipment where commercially available

☐ Permit EHS approval of unlisted equipment

☐ Require EHS review of custom-built or substantially modified printers

☐ Prohibit custom-built or substantially modified printers

A6. Permitted Locations

Identify all locations where printers may be installed, operated, stored, or temporarily staged. A location shall not be considered approved unless it has been reviewed for egress, fire protection, ventilation, electrical capacity, access control, supervision, surface suitability, combustible loading, and emergency response. Locations used for sleeping or primary residential living should be presumed inappropriate unless expressly approved through the exception process. Option	Permit	EHS Approval	Prohibit
Dedicated makerspace	☐	☐	☐
Academic lab in residence hall	☐	☐	☐
Common room	☐	☐	☐
Study room	☐	☐	☐
Residence Life office	☐	☐	☐
Student bedroom	☐	☐	☐

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Student suite/apartment	☐	☐	☐
Corridor	☐	☐	☐
Lobby	☐	☐	☐
Storage room	☐	☐	☐
Mechanical/electrical room	☐	☐	☐

A7. Room and Work-Surface Controls

Specify minimum physical controls for each approved room or workstation. Controls should be sufficient to prevent ignition of nearby combustibles, permit safe maintenance and emergency shutdown, maintain manufacturer-recommended clearances, and prevent storage or clutter from accumulating above, below, or immediately adjacent to printers.

☐ Noncombustible/suitable work surface

☐ Manufacturer clearances

☐ Combustible-storage clearance

☐ Printer enclosure

☐ Dedicated workstation

☐ No combustible storage above printer

☐ EHS room review

☐ Fire-rated room where warranted

A8. Fire Protection

Confirm that the selected fire-protection features are appropriate for the approved printer technology, materials, room arrangement, and operating schedule. Fire alarm, detection, sprinkler, extinguisher, and egress systems shall remain unobstructed and operational at all times. Additional protection may be required where printers operate for extended durations or where multiple printers are concentrated in one room.

☐ Sprinkler protection required for approved locations

☐ Existing building protection acceptable after review

☐ Verify sprinkler clearances/obstructions

☐ Automatic smoke detection in printer room

☐ Additional detection based on EHS assessment

☐ Portable extinguisher at/near makerspace

☐ EHS determines extinguisher type

A9. Ventilation and IAQ

The ventilation determination shall be documented before printers are operated. The review should account for the number of printers, printer enclosure type, materials, processing temperatures, anticipated duration of operation, room volume, occupancy, proximity to sleeping areas, and whether emissions can be adequately diluted, captured, filtered, or exhausted. Where ventilation is inadequate or unknown, printing shall not proceed until controls are evaluated and approved.

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☐ EHS ventilation review for every location

☐ Review selected materials only

☐ Special review for resin/powder processes

☐ Existing HVAC acceptable after evaluation

☐ Local exhaust

☐ Printer enclosure

☐ HEPA filtration

☐ Activated-carbon filtration

☐ Direct exhaust to exterior

☐ Industrial hygiene assessment

☐ Prohibit printing where ventilation is inadequate

A10. Electrical Safety

Electrical controls shall be evaluated with consideration of printer load, heated beds, enclosures, curing stations, dryers, filtration systems, and any other connected accessories. The final policy should prohibit temporary wiring practices that create persistent hazards and should require damaged, altered, overheating, or questionable electrical equipment to be removed from service until reviewed.

☐ Direct connection to permanent receptacle

☐ No extension cords for permanent use

☐ No daisy chaining

☐ Listed power strips only

☐ Facilities review for multiple printers

☐ Dedicated circuit where required

☐ No modified power supplies without approval

☐ Automatic thermal shutdown

☐ Emergency power disconnect where warranted

A11. Number of Printers

Establish any printer-number limits by room or program. Limits should be based on cumulative heat release, electrical load, ventilation capacity, available supervision, fire protection, housekeeping capacity, and the ability to inspect and maintain equipment. The maximum approved number shall be documented for each location and reassessed when equipment, materials, or room use changes.

☐ No predetermined limit

☐ Maximum per room: _____

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☐ Limit based on room size

☐ Limit based on electrical capacity

☐ Limit based on ventilation

☐ Limit based on fire protection

☐ EHS determines maximum

A12. Operating Hours and Supervision

Operating hours and supervision requirements should align with the level of risk presented by the equipment, materials, space, and user population. The final policy shall distinguish supervised use, independent trained-user use, unattended use, and overnight use, and shall identify who is responsible for monitoring prints, responding to alarms or abnormal conditions, and securing the space after use.

☐ Makerspace hours only

☐ Trained staff present

☐ Trained students may operate independently

☐ 24-hour operation

☐ Overnight with approval

☐ Unattended with approval

☐ Unattended prohibited

A13. Unattended Printing Controls

Unattended printing shall be treated as an exception to normal supervised operation and shall require documented controls proportionate to the risk. Remote video monitoring, by itself, shall not be considered a substitute for fire detection, emergency notification, automatic shutdown, safe electrical configuration, and a clearly assigned responsible person.

☐ Prohibit unattended operation

☐ Specific EHS approval

☐ Enclosed printer

☐ Automatic thermal shutdown

☐ Smoke/fire detection

☐ Automatic power disconnect

☐ Remote video monitoring

☐ Remote alarm/temperature monitoring

☐ Automatic suppression where warranted

☐ Sprinkler-protected room

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☐ Maximum duration: _____

A14. User Training

Training requirements shall be defined before users are granted access. Training records should identify the user, date completed, equipment covered, materials authorized, emergency procedures reviewed, and any expiration or refresher requirement. Users shall not operate equipment outside the scope of their documented authorization.

☐ All users

☐ Student users

☐ Makerspace supervisors

☐ Residence Life staff

☐ Printer operation/emergency shutdown

☐ Hot surfaces/moving parts

☐ Fire prevention

☐ Electrical safety

☐ Material hazards/SDS

☐ Ventilation

☐ Housekeeping

☐ Evacuation/incident reporting

A15. Access Control

Access controls shall be sufficient to prevent untrained or unauthorized operation. The selected controls should address how users are approved, how authorization is verified, how access is revoked, how reservations or schedules are managed, and how the institution will prevent after-hours or unsupervised use that has not been approved.

☐ Any resident

☐ Trained residents only

☐ Authorized program participants only

☐ Faculty/staff

☐ Supervised users only

☐ Key/card access

☐ Reservation system

☐ Training database

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A16. Housekeeping and Storage

Housekeeping and storage expectations shall be specific enough to support routine inspection and enforcement. The final policy should identify allowable storage locations, maximum quantities, required clearances, waste-removal frequency, closing duties, and responsibility for correcting deficiencies. Combustible accumulation near printers should be treated as a condition requiring prompt correction.

☐ Maximum material quantity

☐ Designated material storage

☐ Routine waste removal

☐ No cardboard near printers

☐ Required clearances

☐ Periodic inspections

☐ Closing checklist

☐ No combustible storage above printers

A17. Resin Printer Decision

Resin printers require a separate decision because they may involve liquid chemicals, curing equipment, chemical storage, contaminated waste, skin or eye exposure hazards, and specialized ventilation or spill controls. If resin use is permitted, the approval shall identify the specific resin products, post-processing chemicals, personal protective equipment, spill response materials, waste procedures, and storage limitations.

☐ Prohibit resin printers in residential buildings

☐ Permit only with EHS approval

☐ Dedicated ventilation

☐ Chemical-resistant surface

☐ PPE

☐ SDS/inventory

☐ Spill supplies

☐ Controlled chemical storage

☐ Waste procedures

☐ Flammable-solvent controls

☐ Dedicated curing equipment

A18. Emergency Procedures

Emergency procedures shall be posted in each approved location and incorporated into user training. Procedures should address abnormal odor, smoke, overheating, fire, electrical arcing, injury, chemical spill, ventilation failure, alarm activation, evacuation, incident reporting, and the conditions under which equipment must remain out of service pending EHS review.

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☐ Identified power switch

☐ Emergency disconnect where appropriate

☐ Posted shutdown instructions

☐ Posted emergency number

☐ Evacuation instructions

☐ Incident/near-miss reporting

☐ Post-incident EHS release before reuse

A19. Inspection Program

The inspection program shall identify the inspection frequency, responsible department, inspection criteria, documentation method, correction timelines, and escalation process. Inspections should verify that approved conditions remain in effect and that unauthorized printers, materials, locations, or operating practices have not been introduced.

☐ Initial approval inspection

☐ Each semester

☐ Annually

☐ During residence hall inspections

☐ After equipment/material changes

☐ After incidents/near misses

☐ EHS responsible

☐ Campus Fire Safety support

☐ Residence Life support

☐ Facilities support

☐ Makerspace manager routine checks

A20. Registration and Inventory

A current inventory shall be maintained for every approved printer and associated major accessory. Inventory records should be sufficient to confirm ownership, location, approval status, inspection history, permitted materials, electrical characteristics, and any restrictions or corrective actions. Printers not included in the approved inventory should be treated as unauthorized until reviewed.

☐ Maintain approved-printer inventory

☐ Manufacturer/model/serial number

☐ Owner and location

☐ Technology/materials

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☐ Electrical rating/listing

☐ Approval and inspection dates

A21. Student Room Enforcement

The enforcement approach shall be consistent with housing policy, student conduct procedures, and the level of hazard presented. The final policy should distinguish prohibited operation from mere possession or storage, identify immediate-response authority for serious hazards, and state when EHS notification, equipment removal, or student conduct referral is required.

☐ Permit storage if unplugged/unused

☐ Permit storage but prohibit operation

☐ Prohibit possession entirely

☐ Immediate disconnection for unauthorized operation

☐ Removal from residence hall

☐ Residence Life warning

☐ Student conduct referral for repeat/serious violations

☐ Notify EHS

☐ Immediate action for serious fire/electrical hazard

A22. Exceptions

Any exception shall be documented in writing before operation begins and shall identify the approved location, equipment, materials, users, duration, controls, inspection requirements, and approving authority. Exceptions should be narrowly construed, revocable, and subject to re-review if equipment, location, materials, occupancy, or operating conditions change.

☐ No exceptions

☐ EHS approval

☐ Joint EHS/Residence Life approval

☐ Academic exceptions considered

☐ Research exceptions considered

☐ Written

☐ Time-limited

☐ Location-specific

☐ Equipment-specific

☐ Subject to inspection

☐ Revocable

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A23. Final Policy Decision Summary

Use this summary to record the final decisions that will be carried forward into the adopted policy. If the summary differs from any earlier checklist item, the discrepancy shall be resolved before approval. The final adopted policy should reflect the most restrictive applicable decision unless a written exception has been approved. Policy Element	Option 1	Option 2	Option 3
Student-room printing	☐ Permit	☐ Restricted	☐ Prohibit
Residential makerspaces	☐ Permit	☐ EHS approval	☐ Prohibit
Personally owned printers	☐ Permit	☐ Makerspace only	☐ Prohibit
FDM/FFF printers	☐ Permit	☐ EHS approval	☐ Prohibit
Resin printers	☐ Permit	☐ Special approval	☐ Prohibit
Powder/metal printers	☐ Permit	☐ Special approval	☐ Prohibit
Unattended printing	☐ Permit	☐ With controls	☐ Prohibit
Overnight printing	☐ Permit	☐ EHS approval	☐ Prohibit
Ventilation review	☐ Required	☐ Risk based	☐ Not required
User training	☐ Required	☐ Recommended	☐ Not required
Printer registration	☐ Required	☐ Optional	☐ Not required

A24. Campus Risk Approach

The selected campus risk approach should be used to align policy language, approval processes, inspection frequency, enforcement expectations, and resource commitments. A less restrictive approach should not be selected unless the institution can sustain the training, supervision, engineering controls, documentation, and enforcement necessary to manage the associated risk.

☐ LEVEL 1 — RESTRICTIVE: No 3D printing in residential buildings.

☐ LEVEL 2 — CONTROLLED: Printing only in EHS-approved residential makerspaces using approved equipment/materials.

☐ LEVEL 3 — MANAGED ACCESS: Approved makerspaces plus limited approved common-area printing.

☐ LEVEL 4 — DISTRIBUTED ACCESS: Student-room printing permitted subject to defined controls.

Selected campus approach: _____

A25. Final Approvals

Final approval signifies that the reviewing departments have evaluated the selected options, identified required controls, and accepted the documented implementation responsibilities. Approval should not be granted until unresolved deficiencies, conflicting selections, incomplete inventories, or pending inspections have been addressed.

Residence Life/Housing: _____ Date: _____

Environmental Health & Safety: _____ Date: _____

Facilities/Fire Safety: _____ Date: _____

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Other Approval Authority: _____ Date: _____