CHUKWUEMEKA ODUMEGWU OJUKWU UNIVERSITY

POLICY ON WASTE MANAGEMENT AND DISPOSAL, INCLUDING HAZARDOUS MATERIALS

1. PREAMBLE

Chukwuemeka Odumegwu Ojukwu University (COOU) recognises that effective waste management is essential to the protection of human health, environmental quality, campus safety and the University's contribution to sustainable development.

The University's teaching, research, laboratory, clinical, agricultural, workshop, construction, administrative, residential and commercial activities generate different categories of waste. Some wastes may be hazardous because they are infectious, toxic, corrosive, flammable, reactive, radioactive, sharp, persistent or otherwise capable of causing harm to people or the environment.

This Policy establishes a University-wide framework for preventing, minimising, segregating, handling, storing, collecting, transporting, treating, recycling and disposing of waste, with particular safeguards for hazardous materials and hazardous waste. It is intended to ensure that waste is managed safely and responsibly from the point of generation to its final recovery or disposal.

The Policy shall operate in accordance with the laws of the Federal Republic of Nigeria, applicable environmental and public-health regulations, the University's enabling legislation, statutes, regulations, contractual obligations and other relevant institutional policies. Where a legal requirement is stricter than this Policy, the legal requirement shall prevail.

2. PURPOSE

The purpose of this Policy is to:

a. establish a consistent institutional framework for waste prevention, segregation, collection, treatment, recycling and safe disposal across all University locations;

b. protect students, staff, contractors, visitors, neighbouring communities and waste handlers from exposure to hazardous materials;

c. prevent pollution of land, surface water, groundwater, drains and the wider environment;

d. ensure the safe management of laboratory, healthcare, chemical, biological, electronic, battery, pesticide, workshop, construction and other special wastes;

e. promote waste minimisation, reuse, recycling, resource recovery and circular-economy practices;

f. define responsibilities and accountability for waste generators, supervisors, departments, faculties, service providers and University management;

g. provide procedures for hazardous-waste identification, labelling, packaging, temporary storage, transfer, treatment and final disposal;

h. establish arrangements for training, incident reporting, emergency response, monitoring, record keeping and compliance; and

i. support the University's environmental sustainability commitments and relevant Sustainable Development Goals.

3. SCOPE

This Policy applies to all University campuses, faculties, departments, institutes, centres, laboratories, workshops, farms, clinics and health facilities, libraries, offices, halls of residence, staff quarters, kitchens, event venues, construction sites, stores and other premises under the University's ownership, control or management.

It applies to:

- all students, academic and non-academic staff, researchers, visiting scholars, interns and other members of the University community;
- contractors, vendors, tenants, concessionaires, consultants, waste collectors, recyclers and other service providers operating on University premises;
- all waste generated by University activities, whether generated routinely, during research, during maintenance or construction, or in an emergency; and
- waste generated by third parties on University premises where the University has a duty or contractual responsibility to ensure its safe management.

No person shall discharge, abandon, bury, burn, dilute, mix or otherwise dispose of waste in a manner that is unsafe, unauthorised or contrary to applicable law or this Policy.

4. DEFINITIONS

- General waste: non-hazardous waste from routine activities, such as uncontaminated paper, packaging, food residues and sweepings.
- Hazardous material: a substance or article with properties that may cause harm to human health, property or the environment, including toxic, corrosive, flammable, reactive, infectious or radioactive materials.
- Hazardous waste: waste that exhibits hazardous characteristics or is listed or otherwise classified as hazardous under applicable legislation or regulatory guidance.
- Healthcare waste: waste generated by healthcare, diagnostic, clinical, dental, veterinary, public-health or related activities, including infectious waste, sharps, pathological waste, pharmaceutical waste and chemical waste.
- Chemical waste: unwanted, spent, expired or contaminated chemicals, reagents, solvents, acids, alkalis, laboratory mixtures and their containers or residues.
- Sharps: items capable of cutting or puncturing skin, including needles, blades, lancets, broken contaminated glass and similar objects.
- E-waste: discarded electrical and electronic equipment and components, including computers, printers, monitors, laboratory equipment and associated accessories.
- Generator: the person, unit or activity that first produces a waste stream.

- Authorised waste service provider: a competent person or organisation holding all licences, permits and approvals required for the relevant collection, transportation, treatment, recycling or disposal activity.
- Safety Data Sheet (SDS): a document providing information on the hazards, safe handling, storage, exposure controls and emergency measures for a chemical product.

5. GUIDING PRINCIPLES

a. Prevention and minimisation: avoid generating waste where practicable and reduce waste at source.

b. Hierarchy of management: prioritise prevention, reduction, reuse, recycling and recovery before treatment and final disposal.

c. Segregation at source: separate waste according to its type and hazard at the point where it is generated.

d. Precautionary approach: where the nature or hazard of a waste is uncertain, treat it as potentially hazardous until assessed by a competent person.

e. Polluter responsibility: the unit or activity generating waste is responsible for ensuring its safe initial handling and transfer into the approved University system.

f. Traceability and accountability: hazardous waste shall be identifiable and traceable from generation to its authorised final destination.

g. Competence: only trained and appropriately equipped persons shall handle hazardous waste.

h. Legal compliance: waste shall be managed in accordance with applicable national and state requirements, permits and regulatory directions.

6. WASTE CLASSIFICATION AND SEGREGATION

Waste shall be classified before collection. Each faculty, department, laboratory, clinic, workshop and other generating unit shall identify its principal waste streams and maintain suitable, clearly labelled containers at convenient locations. Waste shall not be placed in an incompatible container or mixed with another waste stream where mixing could create a hazard, prevent recycling or increase disposal costs.

6.1 General and recyclable waste

Paper, cardboard, uncontaminated plastics, metals, glass and other recoverable materials shall be placed in designated recycling containers where a safe recovery route exists. Food waste and other biodegradable waste shall be collected separately for approved composting or other suitable treatment. Residual non-hazardous waste shall be placed in designated general-waste containers.

6.2 Hazardous waste

Hazardous waste shall be segregated by hazard class and compatibility. Separate streams shall be maintained, as applicable, for flammable solvents, corrosive acids, corrosive alkalis, oxidisers, reactive chemicals, toxic substances, infectious waste, sharps, pharmaceutical waste, batteries, lamps containing hazardous substances, waste oils and contaminated materials. Unknown or mixed chemical waste shall be isolated and referred to a competent safety officer for assessment.

6.3 Colour coding and labels

The University shall adopt and publish a standard colour-coding and labelling schedule consistent with applicable Nigerian regulations and recognised sector guidance. Healthcare waste colour coding shall follow the applicable healthcare-waste requirements. Until the University issues its approved schedule, generators

shall use durable, clearly worded labels stating the waste type and hazard, and shall not rely on colour alone to identify contents.

Every hazardous-waste container shall, at a minimum, display: the words 'HAZARDOUS WASTE'; the specific contents or waste description; relevant hazard pictograms or warnings; the generating unit; the date accumulation began; and any handling or incompatibility warning. Labels shall be legible, securely attached and updated when contents change.

7. RESPONSIBILITIES

7.1 University Management

a. approve the institutional arrangements, resources and annual priorities required to implement this Policy;

b. designate a competent University unit or officer to coordinate environmental, health, safety and waste-management matters;

c. ensure that contracts for waste services specify legal compliance, worker protection, traceability and approved destinations;

d. provide adequate waste storage areas, appropriate containers, personal protective equipment, training and emergency resources; and

e. ensure that serious incidents and material compliance issues are escalated to the appropriate University authority.

7.2 Environmental, Health, Safety and Waste Management Unit

a. coordinate implementation, issue operational procedures and maintain the University waste-management plan;

b. maintain a register of waste-generating units, hazardous-waste streams, approved storage locations and authorised service providers;

c. provide technical guidance on classification, compatibility, packaging, labelling and safe handling;

d. coordinate inspections, training, incident investigation and annual performance reporting;

e. verify, as appropriate, permits, licences, manifests, treatment records and disposal certificates from service providers; and

f. liaise with relevant regulatory agencies and recommend corrective actions.

7.3 Deans, Directors, Heads of Department and Unit Heads

a. ensure that waste generated by their units is segregated, labelled, safely stored and transferred through approved arrangements;

b. appoint a departmental or unit waste focal person where appropriate;

c. ensure staff and students receive relevant induction and task-specific training;

d. maintain local waste records and promptly report spills, injuries, unsafe conditions and suspected illegal disposal; and

e. ensure that procurement, laboratory and research activities consider waste hazards and end-of-life disposal requirements.

7.4 Principal investigators, laboratory and workshop supervisors

a. identify hazards before work begins and ensure that risk assessments and SDS information are available;

b. ensure incompatible wastes are not mixed and that containers are suitable, closed and correctly labelled;

c. maintain an inventory of hazardous chemicals and identify expired, obsolete or unwanted materials for safe management;

d. ensure that students and staff do not independently dispose of hazardous chemicals into sinks, drains, ordinary bins or the open environment; and

e. ensure that hazardous waste is handed over only to designated personnel or authorised service providers.

7.5 Staff, students, contractors and visitors

Every person on University premises shall use designated waste containers, follow posted instructions, avoid unsafe handling of hazardous materials, attend required training and report hazards or incidents. Contractors and service providers shall comply with this Policy, their contractual obligations and all applicable legal requirements.

8. WASTE MANAGEMENT PROCEDURES

8.1 Waste minimisation and procurement

University units shall, where practicable, purchase only the quantities of chemicals and materials required, choose less hazardous substitutes, use reusable items, apply stock rotation and avoid unnecessary packaging. Procurement of chemicals, pesticides, laboratory reagents, batteries and other hazardous products shall take account of SDS availability, storage requirements, take-back arrangements and end-of-life disposal.

8.2 Collection and internal movement

Waste shall be collected at a frequency appropriate to its volume, risk and rate of generation. Hazardous waste shall be moved in closed, leak-proof and suitable secondary containment using designated routes and equipment. It shall not be carried with food, clean supplies or people where this may create exposure. Waste handlers shall use task-appropriate personal protective equipment and observe hand hygiene.

8.3 Temporary storage

Hazardous waste shall be held only in designated, access-controlled storage areas pending transfer for treatment or disposal. Such areas shall be secure, covered, ventilated where necessary, protected from rain and flooding, away from drains and watercourses, and provided with appropriate signage, spill-control materials and fire protection. Floors and surfaces shall be compatible with the stored materials and capable of containing foreseeable leaks.

Containers shall be compatible with their contents, kept closed except when waste is being added or removed, inspected routinely and replaced when damaged or deteriorated. Incompatible wastes shall be physically separated. Secondary containment shall be provided for liquids. Storage duration and quantities shall not exceed applicable regulatory limits or safe capacity; the University shall set internal limits where the law is silent.

8.4 Transfer, transportation and final disposal

Hazardous waste shall leave University premises only through a service provider authorised for the relevant waste category and destination. The University shall obtain and retain appropriate transfer notes, manifests, consignment records, permits or equivalent documentation, as applicable. Records shall identify the waste

description, quantity, generator, date of transfer, transporter, receiving facility and final treatment or disposal route.

The University shall not permit open dumping, uncontrolled burning, burial, discharge to stormwater drains, or disposal at an unapproved dumpsite. Hazardous waste shall not be diluted or mixed to avoid regulatory controls. Recycling or recovery shall occur only where technically appropriate and legally permitted.

9. SPECIFIC REQUIREMENTS FOR HAZARDOUS WASTE

9.1 Laboratory and chemical waste

Laboratories shall maintain current chemical inventories and SDSs. Waste chemicals shall be segregated by compatibility and hazard class, placed in chemically compatible containers and labelled with their contents. Solvents, acids, alkalis, oxidisers, heavy-metal solutions and reactive chemicals shall be collected separately. Unidentified chemicals shall not be opened, sniffed, mixed or poured away; they shall be isolated and assessed by a competent person. Chemical treatment or neutralisation shall be undertaken only under an approved written procedure by trained personnel.

9.2 Healthcare, infectious and sharps waste

Clinics, health centres, laboratories undertaking diagnostic work and other healthcare-related units shall comply with the National Environmental (Healthcare Waste Control) Regulations, 2021 and applicable health-sector requirements. Infectious waste shall be segregated at source and placed in appropriate leak-proof, labelled packaging. Sharps shall be placed immediately after use into puncture-resistant, closable sharps containers and shall never be recapped, manually sorted or placed in ordinary waste bags. Pathological, pharmaceutical, cytotoxic and chemical healthcare wastes shall be kept in their designated streams. Treatment shall be undertaken only through an approved method and authorised facility.

9.3 Pharmaceutical and cytotoxic waste

Expired, damaged, unused or contaminated medicines, vaccines, laboratory pharmaceuticals and cytotoxic materials shall be secured and segregated. They shall not be flushed into toilets or sinks, placed in general waste, or returned to ordinary stock. Disposal shall follow applicable regulatory requirements and manufacturer or competent-authority guidance through an authorised take-back, treatment or disposal route.

9.4 Pesticides, agrochemicals and veterinary chemicals

Pesticides, herbicides, fertilisers containing hazardous constituents and veterinary chemicals used on University farms or in research shall be stored, used and disposed of in accordance with their labels, SDSs and the National Environmental (Chemicals and Pesticides) Regulations, 2023. Empty containers shall not be reused for water, food or other purposes. They shall be managed in accordance with regulatory requirements and approved return or disposal arrangements. Unused or obsolete stocks shall be reported for safe collection and shall not be poured onto land or into drains.

9.5 Batteries, lamps and electronic waste

Spent batteries, lead-acid batteries, lithium-ion batteries, electronic equipment, fluorescent lamps and other components containing hazardous substances shall be collected separately in designated, protected storage. Damaged or swollen lithium batteries shall be isolated in a safe location using appropriate fire-risk controls and handled by trained personnel. E-waste and batteries shall be transferred to authorised take-back, recycling or treatment facilities; they shall not be dismantled, burnt or scavenged on campus.

9.6 Workshop, engineering and maintenance waste

Used oils, fuels, solvents, paints, contaminated rags, filters, metal-working fluids, refrigerants and chemical containers shall be segregated and stored in compatible, labelled containers. Waste oils and fuels shall be protected against leaks and ignition. Refrigerants and other controlled substances shall be recovered by competent personnel and shall not be vented deliberately. Metal scrap and uncontaminated materials may be recycled through approved channels.

9.7 Construction, demolition and asbestos-containing materials

Construction and demolition projects shall prepare a waste-management plan before work begins. Materials suspected to contain asbestos or other hazardous constituents shall not be broken, cut, sanded or removed by untrained persons. Work shall stop and the area shall be secured pending assessment by competent specialists. Removal, packaging, transport and disposal shall be undertaken by appropriately qualified and authorised persons in accordance with applicable requirements.

9.8 Radioactive waste

Radioactive materials and radioactive waste shall be managed only under the control of appropriately authorised radiation-safety personnel and in accordance with applicable Nigerian Nuclear Regulatory Authority requirements and licence conditions. Radioactive waste shall be segregated, shielded, secured, labelled, inventoried and stored or transferred through approved arrangements. It shall not be placed in ordinary, clinical or chemical waste streams, discharged to drains, or disposed of by unauthorised persons.

10. SPILL, EXPOSURE AND EMERGENCY RESPONSE

Each unit that stores or uses hazardous materials shall maintain emergency instructions appropriate to its activities. Relevant areas shall have accessible spill kits, eyewash or safety showers where required, first-aid supplies, fire protection and emergency contact information.

In the event of a spill, leak, fire, exposure, sharps injury or other hazardous-waste incident, personnel shall:

a. stop work, warn others and keep untrained persons away from the affected area;

b. avoid touching, sweeping, washing away or attempting to clean an unknown or dangerous substance;

c. raise the alarm and notify the unit head, designated safety officer or emergency response contact immediately;

d. evacuate or isolate the area where the substance, quantity or exposure risk requires it;

e. seek prompt medical assessment following suspected exposure, inhalation, ingestion, injection or injury;

f. allow only trained and appropriately equipped responders to contain and clean the spill; and

g. ensure that recovered spill materials, contaminated PPE and cleanup residues are treated as hazardous waste unless assessed otherwise.

All incidents, including near misses and minor spills, shall be documented and investigated. The University shall notify relevant authorities where required by law and shall implement corrective actions to prevent recurrence.

11. TRAINING AND AWARENESS

The University shall provide waste-management and hazardous-materials training appropriate to each person's role. Training shall cover waste classification, segregation, labels, safe handling, PPE, chemical

compatibility, storage, spill response, sharps safety, emergency reporting and the use of authorised service providers.

Staff and students working in laboratories, clinics, workshops, farms, maintenance units and other higher-risk environments shall receive task-specific induction before handling hazardous materials and periodic refresher training. Contractors and waste handlers shall demonstrate appropriate competence before commencing work. Training attendance and competency records shall be maintained.

12. RECORD KEEPING, MONITORING AND PERFORMANCE

The designated coordinating unit shall establish a central waste-management record system. Records shall include, as applicable:

- waste inventories and estimated quantities by type and generating unit;
- hazardous-material inventories, SDSs and risk assessments;
- inspection records for waste containers and storage areas;
- collection schedules, transfer notes, manifests and disposal or treatment certificates;
- service-provider licences, permits and contract documentation;
- training and induction records;
- spill, exposure, injury and non-compliance reports; and
- recycling, recovery, treatment and disposal performance data.

The University shall conduct periodic inspections of waste-generating units and storage locations. The coordinating unit shall prepare an annual report summarising waste quantities, recycling and recovery, hazardous-waste transfers, incidents, training, compliance gaps and recommended improvements. Records shall be retained for the period required by law or University records-management rules, whichever is longer.

13. NON-COMPLIANCE AND CORRECTIVE ACTION

A breach of this Policy may result in corrective instruction, restriction of access to hazardous materials or storage areas, suspension of an unsafe activity, recovery of cleanup costs where appropriate, or referral under applicable University disciplinary, contractual or legal procedures. Any response shall be proportionate, fair and consistent with due process.

Where a contractor or service provider fails to comply, the University may require immediate corrective action and may suspend or terminate the relevant service in accordance with the contract and applicable law. Serious incidents or suspected unlawful disposal shall be escalated to University Management and reported to the appropriate regulatory authority where required.

14. GOVERNANCE AND OVERSIGHT

University Management shall designate an existing committee or establish a Waste Management and Environmental Health, Safety Committee to oversee implementation of this Policy. The Committee may include representatives of relevant University management offices, faculties, departments, health services, works and physical planning, procurement, student affairs and other relevant units.

The Committee shall:

a. review the University waste-management plan and recommend annual priorities;

b. monitor implementation and review periodic performance reports;

c. identify resource, infrastructure and training needs;

d. review significant incidents and recommend preventive measures;

e. promote waste reduction, recycling and responsible resource recovery; and

f. recommend amendments to this Policy for consideration by the appropriate University authority.

The Committee shall not replace statutory regulatory agencies, existing disciplinary structures, professional safety responsibilities or legally required approval and licensing procedures.

15. REPORTING, COMPLAINTS AND PUBLICATION

Any member of the University community may report unsafe waste handling, illegal dumping, unlabelled hazardous containers, spills, exposure risks or suspected non-compliance to the designated unit, unit head or other reporting channel published by the University. Reports shall be handled promptly and, where practicable, confidentially. No person shall be subjected to retaliation solely for making a good-faith report.

This Policy and relevant operational guidance shall be made accessible through the University's official website and communicated to staff, students, contractors and other relevant stakeholders. The University shall maintain an official version showing the approval authority, approval date, effective date, review date, responsible office and current version.

16. REVIEW AND REVISION

This Policy shall be reviewed at least once every three years, or earlier where required by changes in legislation, regulatory guidance, University operations, technology, incident findings or recognised good practice. Each review shall be documented, and proposed amendments shall be submitted to the appropriate University authority for approval.

The University shall retain evidence of the review process, proposed amendments, approval of amendments, date of approval and publication of the revised Policy.

17. LEGAL AND REGULATORY FRAMEWORK

This Policy shall be read together with applicable laws, regulations, permits and regulatory directions, including, as amended or replaced from time to time:

a. National Environmental Standards and Regulations Enforcement Agency (Establishment) Act, 2007, as amended;

b. National Environmental (Sanitation and Wastes Control) Regulations, 2009;

c. National Environmental (Healthcare Waste Control) Regulations, 2021;

d. National Environmental (Chemicals and Pesticides) Regulations, 2023 (S.I. No. 92 of 2023), which replaced the 2014 hazardous chemicals and pesticides regulations;

e. National Environmental (Polychlorinated Biphenyls (PCBs) Control and Disposal) Regulations, 2020;

f. National Environmental (Battery Control) Regulations, 2024;

g. Harmful Waste (Special Criminal Provisions, etc.) Act, 1988;

h. applicable Nigerian Nuclear Regulatory Authority legislation, regulations and licence conditions for radioactive materials and waste; and

i. relevant Anambra State environmental, public-health, sanitation and waste-management laws and requirements.

The list above is indicative and is not exhaustive. The designated coordinating unit shall maintain an up-to-date register of applicable legal requirements and obtain clarification from competent authorities where necessary.

18. APPROVAL AND EFFECTIVE DATE

This Policy shall take effect on the date of its approval by the appropriate University authority. All faculties, departments, units, contractors and other persons within its scope shall take the steps necessary to implement its requirements.

Signature:  Date: 24/10/2026

Prof. Kate Azuka Omenugha, Fnipr

Vice Chancellor

APPENDIX I: MINIMUM HAZARDOUS-WASTE HANDOVER CHECKLIST

The generating unit and receiving waste-management personnel should confirm the following before hazardous waste is moved from its point of generation:

- waste has been identified and classified, or clearly marked as unknown pending assessment;
- waste is segregated from incompatible materials and ordinary waste;
- the container is compatible, intact, closed and leak-proof, with secondary containment where required;
- the container is correctly labelled with contents, hazards, generator and accumulation date;
- the quantity and package condition have been recorded;
- the receiving transporter and destination are authorised for that waste stream;
- required transfer documentation has been completed and signed; and
- the generating unit retains a copy of the handover record and later obtains evidence of treatment or final disposal.

APPENDIX II: IMPLEMENTATION NOTE

Before commencement, University Management should designate the responsible coordinating office, approve the campus waste-segregation and colour-coding schedule, identify and equip temporary hazardous-waste storage locations, establish emergency contacts and reporting channels, and approve standard forms for waste inventories, inspections, incident reports and waste transfers. Operational procedures should be reviewed by competent environmental, occupational-safety, healthcare and radiation-safety personnel, as applicable.