

COLLECTION MANAGEMENT POLICY

**MUSEUM OF SOUTHWESTERN BIOLOGY,
DIVISION OF MAMMALS**



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May 2007

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I. PREFACE

This document establishes policies and guidelines for acquiring materials for the collections of the Museum of Southwestern Biology, Division of Mammals (hereafter referred to as the Division), sets forth policies for the use of the collections, outlines the ethical and legal responsibilities of the Division staff with respect to the collections, and defines the circumstances and procedures by which material shall be eliminated from the collections. The document serves as a supplemental policy to the MSB Museum Policy and establishes guidelines for areas specific within the Division. The Division recognizes its role as a University facility and a public trust, and thus will maintain a Policy that reflects current University and State of New Mexico codes as they pertain to collections. Likewise, the Policy shall reflect the philosophies and principles of current museum practices as outlined in policy guidelines for the Natural Science Collections Alliance, International Council of Museums, American Association of Museums, and the American Society of Mammalogists. It is expected that all Division personnel will be familiar with this Museum Policy and Code of Ethics.

This Museum Policy applies to all Division staff, students, associate researchers, visiting researchers, and the public. The Policy will be amended and updated as needed; an ad hoc committee will be selected to make recommendations and to write a draft for Museum personnel review and comment. The Curator, in conjunction with the museum staff, will approve the final draft of any updated Policy.

II. MISSION STATEMENT

The MSB Division of Mammals documents, archives, and interprets mammalian diversity to increase and disseminate knowledge of our environment.

III. SCOPE AND TYPES OF COLLECTIONS

The Division conducts original research of national and international significance on the systematics, ecology, and life history of mammals and their associated parasites and pathogens. The Division serves the scientific community and the public at large through its research, teaching, access to the collections and associated records, and maintenance of the collections in conditions that promote long-term conservation.

The collection contains more than 170,000 accessioned mammal specimens and their associated ancillary material and is currently the second largest university-based mammal collection in the Western Hemisphere. The collection is taxonomically broad (28 mammalian orders are represented) and world-wide in scope (specimens representing 68 countries) with particularly strong holdings from New Mexico, western North America, Beringia, and Latin America.

Types of collections.

The Museum recognizes two types of collections, each with different requirements for management, care, and use.

- 1) *Research collections.* -- The *research collections* involve specimens or objects that are in excellent condition, unique, or well-documented. These collections are managed and cared for in a manner consistent with museum and disciplinary standards. They include skins, skeletons, tanned hides, taxidermy mounts, and fluid-preserved specimens. A portion of the research collection contains Federal specimens that are managed and curated by U.S. Geological Survey personnel. Although they are uniquely labeled as Federal specimens, these collections are integrated into the University research collections so that a single collection exists.
- 2) *Mammal Teaching collections.* – The *mammal teaching collections* include specimens and objects that are sufficiently unique and of suitable quality to be useful for staff-managed teaching situations. Such material is valued more for its representative characteristics than for any associated documentation. These collections are maintained as a separate entity and are managed in a manner consistent with museum standards and at the discretion of the staff position having the responsibility for the oversight of the collection. Items used for educational reference collections are labeled with the letters “MTC”. Such items are numbered and inventoried if necessary.

IV. PERSONNEL

Direction of the Division is carried out by the Curator. The curator is ultimately responsible for the collection, determining direction of growth, and assisting the Museum Director in securing adequate funding for normal Museum operations.

The collection manager is a specialist in fields related to both Mammalogy and Museum Science. The collection manager is under the supervision and guidance of the curator and is responsible for the care, management, and maintenance of the collection, loan activity, access to specimens and data, and coordinating the activities of curatorial staff. The collection manager receives appropriate training, and attends meetings and workshops, as needed, to keep current on matters pertaining to collection care.

Curatorial staff are composed of graduate students, undergraduate students, high school interns, and volunteers. Division staff are instructed by the collection manager on the proper care and conservation of the collections.

A Federal Curator and Collection Manager share responsibilities with the Division Curator and Collection Manager in managing and funding the collections.

V. CODE OF ETHICS

The objective of the Division Code of Ethics is to establish a framework in which staff perform their duties in accordance with standards established by the museum and scientific communities. The Division recognizes and abides by the codes of ethics established by the International Council of Museums, Natural Science Collections Alliance, American Association of Museums, American Society of Mammalogists, and the University of New Mexico.

Activities that conflict with staff responsibilities or cause staff members to favor outside interests over those of the Division and Museum as a whole must be avoided. Because the prime responsibilities of the Division are to maintain specimens in the public trust, make specimens available for study, and to conduct sound research, the Curator, Collection Manager, and curatorial staff must:

- 1) Act ethically and legally in collecting, acquiring, and disposing of specimens.
- 2) Discourage unethical, illegal, and destructive practices with respect to collection activities.
- 3) Use only the most acceptable preservation, conservation and management techniques for collections.
- 4) Collect specimens without detriment to their habitat, populations, or other biota therein.
- 5) Accept and/or collect specimens which enhance the scientific and educational value of the existing collections.
- 6) Neither modify nor conceal specimens and associated documents. In cases where dissemination of information may jeopardize sensitive or protected species, or the particular research of students or staff of the Division the curator can withhold specimens and associated documents
- 7) Make MSB collections and their documents available to all qualified users as determined by the Curator. Access will be denied to qualified users only when the user fails to adhere to Museum Policy, misrepresents their research, or misrepresents the Division collections.
- 8) Accept the responsibility that some specimens and their byproducts are inherently hazardous, or have been made so through preparation or fumigation practices, and as such are clearly identified or inaccessible (in some cases) to researchers and other staff.
- 9) Adhere to the University of New Mexico's equal opportunity guidelines in its employment practices.

VI. ACQUISITION

The Division acquires biological specimens through gifts, exchanges, transfers, and museum-sponsored field activities.

- 1) The museum staff strives to assure that all acquisitions are collected legally and ethically and are accompanied by all relevant permits and authorization.

- 2) The Division shall only acquire material that is within the scope of the collections and obtained in the best interest of the Division, scientific community as a whole, the public, and the public trust.
- 3) Decisions on what is collected are made by the Collection Manager and other museum staff in consultation with the Curator. The Curator has ultimate responsibility for what is acquired.

- 4) All participants in Division-sponsored field trips are made aware that acquisitions made during the trip, whether part of the stated purpose of the trip or not, are the property of the Division.

VII. COLLECTIONS

The collections are, first and foremost, research collections. They are available to legitimate users from the national and international scientific community. Specimens may be also be used for exhibits and educational purposes. Because of their manner of preservation, specimens generally are not suitable for display in exhibits; nonetheless, scientific specimens are used in exhibits when appropriate and with adequate safeguards. Similarly, selected examples may be used in teaching and as models for preparing illustrations for publication. The governing consideration in any use of Museum specimens is the conservation of specimens in particular and the collections as a whole.

A. ACCESS

- 1) Access to the collections is permitted for research and educational purposes. Individuals or representatives of organizations who wish to use the Division collections for commercial purposes or who may profit financially from its use are given access at the discretion of the Curator. These users may be charged a service fee which will be deposited into a divisional discretionary fund. Use of the collections is by approval of the Curator.
- 2) The Division may deny access to individuals or representatives of organizations who propose to use the collections in ways that are contrary to the mission of the Museum and Division. Reasons may include: excessive costs to the MSB in terms of staff effort and use of facilities, compromised security of the MSB collections and buildings, unauthorized consumptive use of specimens, a history of misuse and mishandling of scientific specimens at the MSB or other institutions, misrepresentation of credentials and affiliations, criminal activity, or disorderly or disruptive conduct or other causes.
- 3) Educational tours of the collection may be provided by the Curator, Collection Manager or other designated staff as staff time allows.
- 4) Access to the Mammal Teaching Collection is by approval of the curator or collection manager.

B. ACCESSIONS

Scientific specimens are accessioned and incorporated into the collection if they are within the scope of collections and fulfill the objectives of the Division.

- 1) Specimens shall not be accessioned into the collection unless:
 - a) The specimens are within the scope of the Division, consistent with the mission, goals and principles outlined in its policy.
 - b) The specimens are collected and acquired ethically and legally according to the laws and regulations of the international, federal, and state agencies dedicated to the protection of fauna and proper documentation is included. All appropriate permits, import, and export documents are retained in the Division accession files for public inspection.
 - c) The Division can provide for the proper storage, protection, and preservation of the specimens in accordance with professional standards of museum conservation.
 - d) Free and clear title, with no preconditions or terms that constrain the Division's full stewardship of the specimens can be obtained.
- 2) All specimens and associated material acquired for the collections shall be given an accession number, properly archived and made accessible.
- 3) The monetary value of an accession is not assessed by Division staff. Depositors may not request this service of staff nor require Division involvement in locating this service as part of the agreed conditions for deposit. The only exception may be for insurance purposes and those evaluations will be considered confidential information for primary parties only (i.e., the Division and the donor).
- 4) Reports of museum acquisitions in the form of gifts (see Appendix III) will follow current University of New Mexico requirements. Gifts to the Division are subject to the Board of Regents approval.
- 5) Library material that is not unusually rare or valuable (i.e. reprints, field guides, etc.) is not accessioned. Such material may be disposed of in accordance with standard practice for research libraries.
- 6) Decisions on what is accessioned into the collection are made by Collection Managers in consultation with the Curator of Mammals. The Curator is ultimately responsible.

C. LOANS

The Division provides and accepts material via the loan process in accordance with its stated mission and under the following conditions.

- 1) **Type specimens** are not loaned.
- 2) **Exhibits** - Loans of material for exhibits must comply with the Division Loan Policy specifically as it relates to long-term storage, security, and environmental conditions. Before it is displayed, material must be correctly identified to species (if possible), cataloged, and the Division must be

acknowledged. Division specimen tags are to remain on specimens at all times.

- 3) **Uncataloged Research Material** - Unpublished products of research activities (i.e. data sheets, owl pellet remains, field books, blood samples) may be loaned after a reasonable length of time, with written permission by the original researcher or her/his designated agent (e.g., major advisor). Researchers must cite Division catalog numbers in published reports even if that material was uncataloged at the time it was loaned to that researcher.
- 4) **Special Collections**
 - a) Teaching collections. Representative taxa in these collections are used on a regular basis by students in courses or in exhibits and demonstrations. Specimens in teaching collections are documented (usually with their own, separately maintained catalog) and stored separately from the main cataloged collections.
 - b) Reference collections. A portion of the Divisional research collections that is loaned for longer periods of time than is normal. Typically for use in identifying taxa in remote, long-term research sites. Users must comply with the Loan Policy relative to care and management of the specimens. The collection may be recalled at any time if Division staff determine proper care and management are not provided or the collections are no longer needed.
- 5) **Outgoing Loans** - The Division provides loans of catalogued material from its collections to researchers at established, scientifically recognized institutions.
 - a) Specimen loans are made only to faculty, curators, and permanent research staff at recognized institutions with facilities to properly house and care for specimens. A project description must be submitted with the loan request.
 - b) Student loan requests require endorsement by the faculty advisor.
 - c) Loan requests must be on institutional letterhead and addressed to the Curator of Mammals.
 - d) Loans may be denied or limited because of size or number of specimens or because of the fragility, rarity, or uniqueness of the specimen(s).
 - e) Borrowing institutions must meet minimal standards (as defined by professional organizations) for security, storage environment, and handling of specimens.
 - f) Future loans are contingent on previous care provided to MSB specimens.
 - g) The duration of each loan will not exceed six months. A renewal period may be negotiated prior to the return date of loaned material. Loan shipments are made in accordance with the Lacey Act of 1903 and the United States Department of Interior regulations concerning the, "Import, export, and interstate transportation of wildlife", CFR 50.14.
 - h) Specimens cited in published works must be identified by their catalog numbers and standard institutional code.
 - i) The Division requires two copies of any resulting published work (one for Division publication files and one for MSB library).

- j) Loans to graduate students or faculty in the UNM Department of Biology are allowed for research, teaching, and demonstration purposes with permission of the Curator.
 - k) Loans of original documents (field notes, correspondence, catalogs and NK books) are not granted. However, loans of other forms of supporting documents may be granted. These include radiographs, photographs, photocopies, and slides.
 - l) The Curator of Mammals in consultation with Collection Managers approves all outgoing loans.
- 6) Incoming loans** - The Division accepts incoming loans pursuant to arrangements made with other scientists or scientific collections.
- a) The Curator of Mammals in consultation with other museum staff approves short-term incoming loans.
 - b) Indefinite or long-term loans shall be accepted only after recommendation of the staff and approval by the Curator. These loans must involve important material that would otherwise be subject to loss or are material required for current Division research.
 - c) The Division does not store material on behalf of others.
 - d) Materials lent to the Division on the understanding that they will ultimately be donated must include binding documentation stating this.
 - e) Incoming loans are received and processed for purposes of research by staff of the Division.

D. SAMPLING

1) Tissue Loans

The MSB contains over 200,000 samples of mammalian tissue, blood, and protein extracts housed in the Division of Genomic Resources (DGR). The majority of samples are associated with vouchers in the Division of Mammals. Although most tissues are frozen, the MSB also maintains a growing collection of ethanol-preserved tissues. Unlike traditional specimens, tissue samples are eventually depleted with use. Thus, MSB Curators have formulated the following guidelines to ensure that destructive sampling does not exhaust these limited resources. These guidelines also apply to destructive sampling of traditional museum specimens (e.g., skin and skeletal material) for biochemical, isotope, or other kinds of analyses. In developing these guidelines, consideration was given to policies instituted by other major tissue collections. Our overall goal is to preserve the value of the collections for present and future use.

- a) The MSB will provide limited loans of tissue from its collections to qualified researchers. Such loans are intended to supplement material from wild or captive animals obtained independently by users of the collections. Implicit in the loan agreement is the understanding that users will abide by

certain requirements. In turn, the MSB will absorb the high cost of obtaining, housing, cataloguing, and maintaining these samples.

- b) Requests for sampling of MSB tissues or specimens is an explicit acknowledgment that the researcher supports legitimate scientific collecting, and that he/she values the time and effort that goes into collecting, preparing, and maintaining museum collections. In exchange for granting these samples for scientific study, we may occasionally ask researchers to provide verbal or letters of support of scientific collecting and of our collections.

2) **Consumptive Analysis**

Researchers may request samples of skin, hair, toe pads, or bone from traditional specimens for DNA, isotope, or other analyses. However, because our collections are finite resources, one of our primary responsibilities is to protect the Division holdings to insure that they are available for use by future generations of researchers. Such requests are evaluated more stringently than other requests.

- a) We emphasize that destructive samples are intended to supplement research materials obtained from other sources, not replace primary data collection efforts such as field sampling of extant taxa. While we strongly encourage collections-based research, our obligation to protect the MSB's holdings may require that some requests for destructive samples be denied.
- b) As the number of destructive sampling requests has grown, it has become necessary to implement the following guidelines regarding consumptive use of museum specimens:
- c) Requests for consumptive sampling must contain compelling reasons why the project cannot be completed without the use of museum specimens. This includes evidence that (i) the research question being addressed is explicitly historical and thus requires the use of museum specimens, or (ii) the taxa of interest cannot be sampled directly from the field.
- d) Requests for destructive sampling should provide evidence that the investigators have experience with associated analytical procedures (e.g., PCR amplification and sequencing of DNA from museum skins), and that the proposed studies are likely to generate useable data.
- e) If approved, sampling must be accomplished and documented according to Division guidelines.
- f) Residual products resulting from consumptive sampling (e.g., parasites, DNA strands, gut contents, karyotype test slides) are to be returned to the MSB with two copies of any written reports or published results.

- g) The Curator of Mammals, in consultation with Collection Managers, will consider destructive sampling requests on a case by case basis, and has the responsibility of final approval.

E. DOCUMENTATION

The objectives of this Policy are to define documentation, establish standards on care and maintenance, and describe permissible forms of use.

Documentation is defined "as ancillary information recorded in a permanent manner using any of a variety of media (paper, photographic, electronic, etc.), regarding the identification, condition, history, or scientific value of a specimen, artifact, or collection." This encompasses information that is inherent to the individual specimen and its associations in its natural environment as well as that which reflects processes and transactions affecting the specimen (e.g., accessioning, cataloging, loans, sampling, analysis, treatment, etc.). Documentation is an integral aspect of the use, management, and preservation of a specimen, artifact, or collection" (Cato et al. 1994).

- 1) Maintenance of Division original documentation follows recommendations by professional societies such as the Society of American Archivists (Deiss 1984; Ritzenthaler 1983) and American Institute for Conservation of Historic and Artistic Works (Kushel 1980).
- 2) Division documents are available for any legitimate (i.e., noncommercial, research) use. All requests to use Division documents are subject to the approval of the curator. Intentional misuse, alteration, removal, or destruction of Division documents will result in the denial of future access to documents.
- 3) Loans of original documents (field notes, correspondence, catalogs and NK books) are not granted. However, loans of other forms of supporting materials may be granted. These include radiographs, photographs, photocopies, and slides.
- 4) Reproduction of Division documents is not allowed without the expressed consent of the curator. Methods of reproduction can be restricted or denied to prevent damage to original documents.
- 5) Public display or publication of Division documents (or their copies) must acknowledge the Division as the source of these documents.
- 6) As with Division specimens, when Division documents are cited in any published work, two copies of the paper must be provided to the division.
- 7) Documents no longer relevant to Division will be transferred to the University of New Mexico Libraries' archives upon approval by the Division Curator.
- 8) Archived documents that are no longer actively used are subject to the same restrictions and guidelines as documents in current use. The physical integrity of archives is maintained according to methods recommended by

such professional societies as the Society of American Archivists (Deiss 1984; Peterson and Peterson 1985; Ritzenthaler 1983).

- 9) Magnetically stored data, electronic catalogs, and specimen database files are subject to specific policies and are addressed separately in this policy manual (see Database Policy).

F. DATABASE

Specimen-based databases are defined as catalog records (derived from museum specimen labels and field notes, etc.) in any form, including electronic databases, hard copy files, and images (e.g., photographic or digitized).

- 1) Users who fail to comply with Division guidelines may be denied future access. Unusual cases or requests require the approval of the Curator.
- 2) Data transfer or data-sharing agreements must precede the actual transfer of data, and include a statement of the mission of each party. Collaborative research is reciprocal and usually requires no payment, however reasonable fees may be charged to users outside the systematics community, including for-profit institutions.
- 3) The Division desires to release only accurate data but users must be aware that specimen-based databases are continually being updated as species delineations and nomenclatural changes occur. Both specimen examination and verification of identification remain the responsibility of the primary researcher.
- 4) The Division restricts access to certain data fields, for example localities of threatened or endangered species, or data involving current research by staff or students.
- 5) The user must acknowledge the Division as the source of specimen data, and must provide two copies of any publications, research reports, or completed projects.
- 6) The Collection Manager, with assistance from other Division personnel, is responsible for the upkeep of the collection databases.

G. PREVENTATIVE CONSERVATION

The Divisional staff follow appropriate procedures for care and maintenance, must be consistent with current conservation information and meet professional standards within the discipline in regard to the collections.

- 1) Food, drink, living plants and animals, and unprocessed biological material are not allowed in the collection areas.
- 2) An IPM plan is in place and is regularly implemented.
- 3) Storage and preparation materials are of archival quality.
- 4) Environmental conditions are kept at appropriate levels.
- 5) Access is limited to approved personnel and the collections are secured at multiple levels.

- 6) The extreme importance of type or otherwise irreplaceable specimens is recognized and extra precautions are taken in their use, protection, care, and conservation.
- 7) Collection care and conservation are the responsibility of all staff members directly involved with specimens: curator, collection manager, curatorial assistants, and visitors. Final responsibility rests with the Collection Manager.

H. DEACCESSION AND DISPOSAL

The Division deaccessions and disposes of accessioned items only for sound scientific and curatorial reasons and as long as the interests of the Division and its audiences are served, procedures follow the written guidelines, and each deaccession is thoroughly documented in writing.

- 1) An item may be deaccessioned because it is:
 - a) No longer relevant to the Division mission and goals.
 - b) Not consistent with collection scope.
 - c) Has deteriorated beyond use or restoration.
 - d) Is excessively duplicated in collection.
 - e) Has a health or safety hazard.
 - f) Cannot be given adequate care.
 - g) Is a justified gift or exchange to another museum.
- 2) The following are acceptable processes for deaccessioning an item:
 - a) Exchanges: This is an agreement between the Division and another museum to exchange specimens of equal scientific value and to mutually relinquish their respective stewardship over those collections. No exchanges are made with individuals.
 - b) Transfers: This is an agreement between the Division and another museum that the Division will relinquish its ownership of collections that no longer serve a purpose to the Division (or require more accessibility to the wider scientific community). Collections are transferred only to institutions which can assure the Division that minimal standards of care will be provided for those collections. In these transactions, the Division does not require specimens in return. Primary types may be transferred depending on the discipline's attitude regarding stewardship of these important specimens. (see Lachner 1976).
 - c) Institutional Sharing: This is a decision made by a division to share an important series of specimens with another peer institution or museum with international recognition in order to increase accessibility to those specimens (e.g., dividing a paratypic series among several museums or institutions.)
 - d) Discarding Specimens: Destruction of cataloged specimens can sometimes occur by natural disasters, museum pests, and consumptive sampling procedures. The curator in consultation with the collection manager may decide which (destroyed) specimens no longer have scientific value. Original documentation for discarded specimens is always retained by the

Division. Holotypes and Type series are never discarded, regardless of their condition.

- e) Sale of gifted material with no scientific value for enhancement of the existing collections. Gifts made through the University of New Mexico by approval of the Board of Regents are subject to formal procedures of deaccessioning.
- 3) A record of the conditions and circumstances under which specimens are deaccessioned and disposed of shall be made and retained as part of the permanent record. Original documentation of deaccessioned specimens will be retained by the Division.
- 4) Exchanged, transferred, and shared specimens will retain original specimen labels and those labels will be transferred with the specimens. Photocopies of other original documents (field notes, accession files and correspondence) will be provided.
- 5) Division catalog numbers assigned to deaccessioned specimens are not reassigned. The catalog entries are amended to show the status of those specimens and the date of deaccessioning.
- 6) Disposal of deaccessioned items is done in a discrete and ethical manner, and any compensation received from disposed items is used entirely for the benefit of the Museum collections.
- 7) The Curator assumes final responsibility for the deaccessioning of any material.

I. TITLE

All materials housed or produced by, or donated to the Division are property of the Regents of the University of New Mexico. Federal specimens curated by USGS remain the property of the United States Government. Use of all materials may be granted to bona fide individuals and agencies for acceptable purposes as approved by the curator. Any person or activity that is not consistent with the philosophy, scope, or spirit of the MSB (and thus violates the Museum's mandate) may be denied all or part of the holdings and services of the Museum.

VIII. PEST MANAGEMENT.

- 1) The Division staff acts responsibly to prevent insect pests and other destructive organisms from damaging collection items or associated resources.
- 2) The Division staff pursues pest-free museum environments on a continuous basis. To help reach this goal, food, unpreserved animals, unpreserved plants, and other high-risk materials (living or non-living) are restricted to specifically designated rooms of the Museums. Under no circumstances are such materials permitted in or near areas where collections are maintained on a permanent or temporary basis.
- 3) An integrated pest management program is maintained at all times throughout the Division. Features of this program include good housekeeping, good work

habits, appropriate utilization of space and storage equipment, surveillance, and documentation.

- 4) In the event of an infestation, responsible pest management activities are implemented, emphasizing non-chemical or inert chemical control before toxic compounds are used. Both infestations and treatments are fully documented, and reports are submitted internally to the Curator and maintained in permanent files.
- 5) The use of toxic chemicals is performed in full compliance with federal and state regulations. Also, appropriate precautions are taken to protect human health and safety, to avoid environmental pollution, and to minimize loss of integrity of materials in the collections.
- 6) The Collection Manager is responsible for developing and implementing effective mechanisms to address the pest management program of the Division and the Curator is responsible for overseeing the process. As part of this process, written procedures are available to support the pest management policy.

IX. EMERGENCY MANAGEMENT.

- 1) Museum personnel respond quickly and efficiently to emergency situations to stabilize conditions and to mitigate the risk of damage, loss, disorder, or disruption.
- 2) The health and safety of each individual and their immediate family is paramount to all other issues.
- 3) To promote preparedness and responsiveness to emergency situations, the Museum has written emergency procedures, emergency equipment, and recovery supplies. Staff training is provided to familiarize individuals with emergency procedures and equipment.
- 4) For emergency assistance, an updated list of prioritized contacts (names, addresses, and phone/fax numbers) is maintained by staff telephones.
- 5) The permanent, full-time staff is familiar with direct/indirect procedures for stopping and starting electrical power, ventilation, and water to the Division facilities.
- 6) The Museum and Division have mapped floor plans and clearly marked exit doors to facilitate evacuation during emergency situations.
- 7) During community-wide emergencies stabilization of personal property may proceed after the basic security of the Museum and Division properties is provided. After basic stabilization of personal property is accomplished, all personnel work together to achieve stabilization of the Museum and Division properties.
- 8) The Curator of the Division is responsible for developing and implementing effective mechanisms to address the emergency management program of the Division. As part of this process, written procedures are available to support the policy.

X. HEALTH AND SAFETY

The Division is committed to providing a safe and healthful environment for staff, volunteers, and visitors, as well as minimizing risks to its collections. It is the goal of MSB to conduct its activities in a safe manner through recognition, evaluation, and control (reduction or elimination) of health and safety risks.

1) Authority and Responsibilities

The Division coordinates its safety efforts with the University Occupational Safety Office and complies with Federal, State and local laws and regulations. Safety efforts are shared by staff, Museum workers, and visitors alike. The Museum Director is ultimately responsible for implementation of and compliance with all environmental health and safety policies. The Curator ensures compliance of Divisional staff with the applicable requirements of these policies. Collection managers (or those directly responsible for supervising workers) are responsible for providing safety orientation to new workers; training employees in safe work practices, and ensuring that employees have and use the appropriate personal protective equipment. It is the employee's responsibility to observe and follow all safety and health policies; wear personal protective equipment that has been provided; use all machinery and equipment in a safe manner; and report any accident, injury, or unsafe or unhealthful condition to their supervisor. Similarly, visitors are encouraged to observe and follow all applicable Division safety and health policies.

2) Hazard Recognition (Identification)

- a) Safety inspections of the collection areas and laboratory facilities are conducted on a regular basis to determine potential or actual safety, health, or environmental hazards. The inspection will be conducted by the University Campus Safety Office. Any identified hazards will be brought to the attention of the curator of the division where the hazard occurs. The Committee and Safety Office will make recommendations to minimize or eliminate these hazards, and will evaluate the results of any previous action taken.
- b) Hazardous materials can be biological (e.g., blood, tissues) or chemical (e.g., fixatives and preservatives, pesticides). They can be found throughout collections, in the museum specimens themselves (e.g., mammal skins treated with arsenic or pesticides) as well as in the storage medium (e.g., specimens stored in formalin or alcohol; and storage cabinets coated with lead-based paint). The Division staff needs to be aware of the actual and potential sources of hazardous materials in the collections and work areas, as well as historical and current treatments of specimens.

3) Hazard Elimination or Control

- a) The Division contains and employs various types of safety equipment and supplies within the division:
- b) First aid equipment (first aid kits, emergency eyewash stations);
- c) Fire detection and suppression equipment (fire extinguishers, pull down fire alarms);
- d) Clean-up equipment ("sharps" container, biohazard container);

- e) Protective clothing and equipment (fume hoods, gloves, safety goggles, half- and full-face respirators with high-efficiency particulate air (HEPA) and/or organic chemical cartridges.
- f) Training: Supervisors are responsible for determining the training necessary for employees to recognize and handle on-the-job hazards. Supervisors shall supply employees with personal protective equipment, provide training, or make provisions for formal training if necessary. Examples of formal training include: respirator use and formaldehyde hazard awareness. Supervisors may require periodic training or re-training in health and safety and will notify their employer to correct these deficiencies. Each work location or division should have at least one individual currently certified in cardiopulmonary resuscitation and first aid.
- g) Testing and Monitoring: All hazardous materials have established permissible levels and most can be easily monitored (e.g., formaldehyde, inorganic arsenic).
- h) The Museum coordinates with the University Occupational Safety Office, which has primary responsibility for these activities.

XI. HAZARDOUS WASTE

This Policy applies to all Museum employees who have potential for exposure to hazardous materials in the work environment. A hazardous material is defined as any material which by reason of being particularly reactive, explosive, flammable, poisonous, corrosive, oxidizing, irritating, or otherwise harmful is likely to cause injury or death to employees, or destruction of property. When no longer useable, this material becomes a hazardous waste. Hazardous wastes can be biological (biohazardous) and include infectious wastes such as bacteria, viruses, and bodily fluids. Chemical wastes are non-radioactive chemicals that meet any of the criteria listed above for hazardous materials. Refer to the University's "Hazardous Waste Management Guidelines" for a list of hazardous chemicals and their reactivity.

The objectives of this Policy are to define the role of supervisors and employees relative to hazardous wastes; to provide employees with information concerning the storage and disposal of biohazardous and chemical wastes; and to reduce the incidence and/or likelihood of workplace injuries and illnesses from biohazardous and chemical exposures.

1) Authority and Responsibilities

The University has delegated authority regarding the collection and disposal of hazardous wastes to the Department of Occupational Safety. Nonetheless, the Division is aware of its role in providing a safe and healthy environment to its staff, volunteers, and visitors. The Curator is responsible for ensuring compliance with all environmental health and safety policies. Supervisors (curators and/or collection managers) must inform employees of all harmful agents associated with their work environment, as well as how to protect themselves from danger.

Employees are responsible for knowing the Division's Policy and notifying their supervisor of potentially harmful agents.

2) **Storage of Hazardous Materials**

Hazardous materials must be stored in approved storage containers which meet OSHA (Occupational Health and Safety Administration) requirements, and accompanied with a Material Safety Data Sheet (MSDS; see below). Small quantities may also be stored in any metal cabinet in other areas provided that the container is labeled appropriately (i.e., CAUTION: FLAMMABLE).

3) **Material Safety Data Sheet**

The MSDS is required for any hazardous chemical stored at MSB and shall be clearly posted where the hazardous material is used or stored. The MSDS is "required reading" for all employees working at that worksite prior to initial use of the material.

4) **Chemical Inventory List**

A list of all hazardous (and potentially hazardous) chemicals shall be completed by each division and updated annually. The list should contain, as a minimum, the following information: name of chemical, amount, and storage site. Each division should try to minimize the quantity of hazardous chemicals and should reassess on an annual basis the need to retain such chemicals.

5) **Container Labeling**

All hazardous or potentially hazardous materials shall be stored in the original container which carries a warning label listing the chemical name, hazardous ingredients, hazard warnings, and the manufacturer's name and address. Transfer of chemical products from one container to another is permissible provided that the new container is properly labeled and meets OSHA and NFPA (National Fire Protection Act) standards. Transfer of flammable liquids requires that both containers are grounded and bonded together with a bonding wire.

6) **Training**

Employees are to be informed of all hazardous chemicals in their work areas at the time of their initial assignments, and whenever a new hazard is introduced into their work areas. Minimum training shall include a review of the University's "Hazardous Waste Management Guidelines" and a briefing on the types of hazardous substances that the employee will come in contact with.

7) **Disposal of Hazardous Chemicals**

This information should be listed on the appropriate MSDS. In general, no hazardous wastes can be disposed of down the drain or in the trash. Contact the University's Health and Safety Office for information on disposal of specific chemicals.

8) **Disposal of Biohazardous Wastes**

Biohazardous wastes are sealed in an autoclavable "biohazard bag" and autoclaved within the Department of Biology. Animal wastes which are not considered to be hazardous are bagged and transported to Veterinary Diagnostic Services for incineration. The material is stored in a "waste freezer" if it cannot be processed immediately. Refer to divisional policies for additional information on the disposal of biohazardous wastes.

XII. LITERATURE CITED

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