

Principal Investigator's Handbook

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***Bold indicates Revised Forms @ 8/2005**

INSTITUTIONAL INFORMATION AND IDENTIFICATION NUMBERS

Assurances Civil Rights, Handicapped Individuals, Sex and Age Discrimination Compliance filed with HHS 9/9/93 (HHS Form 690, replaces forms 441, 639A, 641 and 680) and with NASA Lewis 1/20/94 (NASA Form 1206)

Montana Tech Tax ID Number—81-6001654

Duns Number—0714-08496

Checks for Awards or Agreements

Payable to: Montana Tech of The University of Montana

Mail to: Director

Office of Grants and Contracts

1300 West Park Street

Butte, MT 59701-8997

Cognizant Audit Agency and Auditor

US Department of Health and Human Services

Program Support Center, Financial Management Service

Division of Cost DEA, Western Field Office

50 United Nations Plaza, Room 304

San Francisco, California 94102

Phone: (415) 437-7870

Employer Identification Number (also called TIN or IRS number)—81-6001654

Indirect Cost Rate Agreement—Rates are negotiated with the US Department of Health and Human Services (most current agreement dated 1/23/04). Copies are available from the Office of Research and Graduate Studies.

NSF Organizational Code—0025312000

Authorized Institutional Representative

Associate Vice Chancellor for Research and Graduate Studies

c/o Office of Research and Graduate Studies

Montana Tech of The University of Montana

1300 West Park Street

Butte, Montana 59701-8997

PROPOSAL PREPARATION CHECKLIST

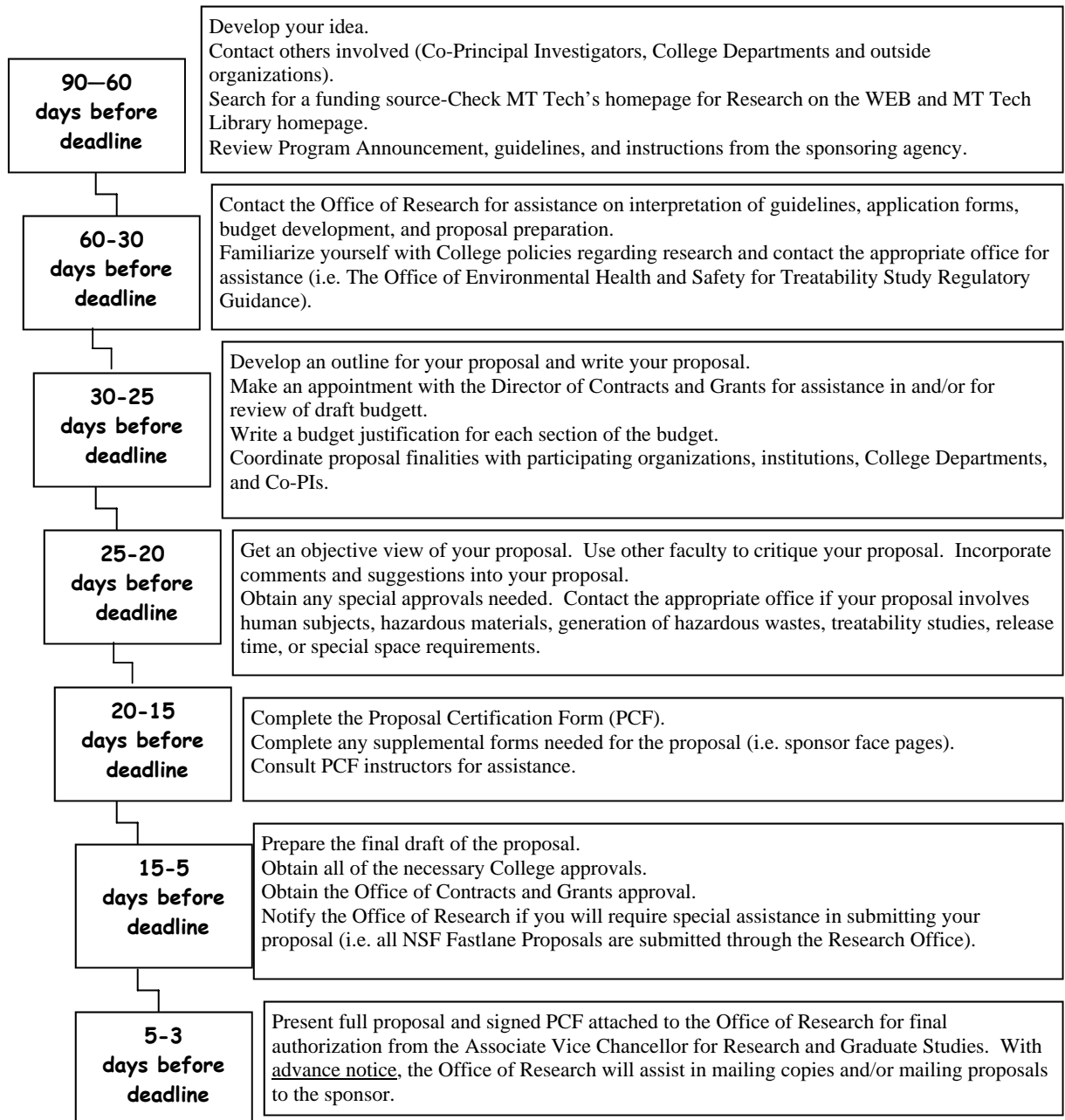
- ___ Develop your idea and contact others involved. Contact colleagues, Collegiate and Department Administrators, outside groups, etc.
- ___ Search for a funding source. Visit the Research Office for information and assistance with your search and the Montana Tech Research Office Web Page for some funding sources. The Montana Tech Library has on-line searching capabilities. Acquire guidelines and application forms from potential sponsors. (The Research Office has several standard and special forms on file and many are now available on the World Wide Web.)
- ___ Review Proposal Solicitation Information. Review the Program Announcement, proposal preparation guidelines and instructions, and evaluation criteria from the sponsoring agency.
- ___ Contact the Research Office for assistance on interpretation of guidelines, application forms, budget development, and for advice on applicable requirements.
- ___ Familiarize Yourself With College Policies. Review College Policies regarding research and contact appropriate offices for additional assistance.
- ___ Write your proposal. Refer to sponsor guidelines and evaluation criteria often.
- ___ Make an appointment with the Director of the Office of Grants and Contracts for assistance in finalizing a budget and budget justification, and/or for review or approval of your budget. Develop your budget according to your written deliverables and sponsor limitations.
- ___ Get an objective view. Use other faculty to review and critique your proposal and incorporate those comments into a new draft.
- ___ Notify ORGS in advance if you need any special assistance in submitting your proposal. Refer to sponsor guidelines to identify if special circumstances such as electronic submission are necessary. *See the special note below for NSF proposals.*

SPECIAL NOTE: For NSF proposals *ALWAYS* refer to the NSF FastLane homepage <http://www.fastlane.nsf.gov/> to submit all go through FastLane. FastLane proposals must be submitted through the Montana Tech Research Office.

- ___ Obtain any special approvals needed. Contact the appropriate office if your project involves human subjects, lab animals, hazardous materials or generation of hazardous wastes, treatability studies, release time, or special space requirements. *Refer to Regulatory and Safety Issues in the PI handbook.*
- ___ Prepare the final draft of the proposal. Assemble Technical Section, Budget Section, and Supplemental Information (if allowed), i.e. Biographical Sketches/Vitae/Resume (check length limitations), description of facilities, and/or special equipment, special circumstances, etc.
- ___ Complete any supplemental forms required by the sponsor.
- ___ Complete the Proposal Certification Form.
- ___ Obtain appropriate College approvals. Submit the proposal and applicable internal forms to the Department Head. Obtain the signature of all Department Heads involved.
- ___ Obtain Office of Grants and Contracts approvals.
- ___ Submit the proposal to ORGS. The Associate Vice Chancellor for Research and Graduate Studies is the Official/Authorized Institutional Representative and is designated by the Chancellor as the person who can commit the College to Grants and Contracts. One complete copy of the proposal must be submitted to the research Office with the Proposal Certification Form at the time of submission. The Research Office can make necessary copies and send the proposal to the sponsor if notified in advance.

PROPOSAL TIMELINE

Below is an example of a timeline for the proposal process. Allowing 90 or more days is helpful to facilitate proposal development and to insure all of the necessary steps are completed. It is not always possible for the Principal Investigators to schedule this length of time, but this timeline can still be helpful in prioritizing tasks.



PROPOSAL BUDGETING INFORMATION AND GUIDELINES

Due to revisions to Circular A-21, if requesting direct charges for salaries of administrative and clerical staff, office supplies, postage, local telephone costs and memberships, a justification for direct charges (as opposed to indirect charges) should be included with the budget. For the purposes of calculating the level of effort to be expended on a particular project, use the following table. Note that these conversions are approximate and will vary slightly from year to year. If you require more accurate information for a particular fiscal year contact the Director of the Office of Budgets, Payroll, and Personnel.

One work month		4.3 weeks	22 person days	173 hours
Academic Year -AY	Aug 16 thru May 15	39.0 weeks	195 person days	1560 hours
Fiscal Year-FY	July 1 thru June 30	52.0 weeks	260 person days	2080 hours
Summer (3 months)*	May 16 thru Aug 15	13.0 weeks	65 person days	520 hours

* NSF budgets for summer salaries are generally limited to 2 months per summer.

- List the amount of time to be spent by each Montana Tech employee who will work on the project and the rate of pay.
- Compensation on sponsored projects must not exceed a faculty's authorized base rate of pay at Montana Tech.
- Time can be shown in percent of full time effort as in person hours, days, or weeks or months. Percent of full time effort or months is the preferred method because hours, days and weeks vary by pay period, and using those units of measurement can create some discrepancies in budgeting estimates versus actual costs.
- New job classifications and compensations must conform to Montana Tech Human Resources classifications.
- Observe the fiscal year NIH salary cap of \$125,000 if applicable.
- Use an annual escalation factor of 5% for fiscal year appointments.
- Budget Graduate Research Assistant and Associate salaries within the range as set by each Department.

Operations

Operations include, but are not limited to:

Expendable materials & supplies	Best estimate (check catalogs and historical records)
Publication charges	Approximately \$.75 per page
Copy services	Best estimate (\$.05/page department; \$.10/page at MT Duplicating Center)
Long distance telephone	Best estimate (includes long distance, computer network charges, etc.)
Postage/express mail	Best estimate using current U.S. postage rates; also contact MT Mail Services.
Office Supplies	Best estimate check company catalogs
Equipment Maintenance	Best estimate Contact Purchasing Department for annual contract rates
Consultants	Actual daily rate with proper documentation (many Federal Agencies' maximum daily rate is \$443)
Subcontracts	Written estimate/quotation on subcontractor's letterhead with subcontractor's authorized signature
Space Rental	Quote (obtain current quotes for specific needs)
Renovation	Contact MT Physical Facilities—Planning and Construction for estimate
Lab animal costs	Contact ORGS

Travel

Follow Montana Tech Travel Policy in budgeting travel expenses. There are two established per diem rates, depending on the travel destination. Lodging also varies according to travel destination. Transportation equals the estimated round-trip airfare, or an established cost per mile if driving is appropriate. Proposed travel should include conference name, location, purpose, and cost. Foreign travel should be budgeted separately and requires additional prior written approval.

Tuition and Fees

Academic Year full time tuition and fees are available from the Graduate School or the Registrars Office. Use an escalation factor of 3% for subsequent years.

Capital Equipment

Separately list any major equipment purchase \$5,000 or more. Be sure to include any applicable shipping, insurance, and installation charges. These costs cannot, however, be considered in determining whether an item is capital equipment (i.e. unit value of \$5,000 or more). Equipment rental should be listed as operational costs. Computer software is not considered as capital unless valued in excess of \$50,000. Exception: Some sponsors (such as DOE, Sandia Labs, etc.) do consider software as capital and require prior approval for these purchases. Capital budgets are strengthened by including the basis of the equipment figures, telephone quotes, vendor catalog prices, or vendor bids. Facility renovations equal to or in excess of \$5,000 are capitalized.

Calculation

When full indirect costs are allowable, apply the appropriate indirect cost rate to the total direct labor costs base. Items included in the base are:

- Salaries & Wages
- Fringe benefits

If the rate used is **less than the University's negotiated rate**, indirect costs may **possibly be calculated on total direct costs**, versus modified total direct costs. Contact the VCRGS or OGC for assistance.

Rates

These are the current fringe benefit and indirect cost rates for fiscal year 2006, which took effect July 1, 2005. Please use these rates on all contact and grant applications.

<u>Fringe Rates</u>	
FY Contract Personnel	35%
AY Personnel	25%
Classified Personnel	39%
Students	3% 1

Indirect Costs

44% of Salary plus Benefits—**FEDERAL** and **PRIVATE** Contracts

30% of Salaries plus Benefits **or** 20% of total direct Costs, whichever is lower—**STATE** Contracts

Faculty Buy-outs

Effective October 2, 2002, all new proposals for extramural funding shall be submitted with faculty and course buy-outs costs by the appropriate formulas as directed by the Director of Budgets and Human Services. Contact the Vice Chancellor for Academic Affairs and Research if you have any questions.

SAMPLE BUDGET—SIMPLIFIED

BUDGET	Proposal Title Sponsor	Date			
			Funding Request	MT Tech Match	TOTAL
SALARIES & WAGES					
Professionals					
_____	(____ hours)		\$	\$	\$
_____	(____ hours)		\$	\$	\$
Faculty					
_____	(____ hours)		\$	\$	\$
_____	(____ hours)		\$	\$	\$
Students					
Graduate Student (20Hrs/Wk – AY)			\$	\$	\$
Graduate Student (40Hrs/wk – Summer)			\$	\$	\$
TOTAL SALARIES					\$
BENEFITS					
Faculty (25%)			\$	\$	\$
Other Prof. (35%)			\$	\$	\$
Students (3%)			\$	\$	\$
	<i>Subtotal</i>		\$	\$	\$
OVERHEAD					
(50%) salaries+benefits)			\$	\$	\$
SUPPLIES					
	<i>Subtotal</i>		\$	\$	\$
EQUIPMENT					
	<i>Subtotal</i>		\$	\$	\$
TRAVEL			\$	\$	\$
EQUIPMENT RENTAL			\$	\$	\$
HAZARDOUS WASTE HANDLING			\$	\$	\$
TOTAL COSTS			\$	\$	\$

SAMPLE BUDGET—DETAILED

SUMMARY PROPOSAL BUDGET

ORGANIZATION				PROPOSAL NO.		DURATION (MONTHS)	
						Proposed	Granted
PRINCIPAL INVESTIGATOR/PROJECT DIRECTOR				AWARD NO.			
A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. Show number in brackets)				NSF-Funded Person-months		Funds Requested By	Funds Granted by
				CAL	ACA	SUMR	Proposer
1.							\$
2.							\$
3.							
4.							
5.							
6. () OTHERS (LIST INDIVIDUALLY ON BUDGET EXPLANATION PAGE)							
7. () TOTAL SENIOR PERSONNEL (1-6)							
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)							
1. () POST DOCTORAL ASSOCIATES							
2. () OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)							
3. () GRADUATE STUDENTS							
4. () UNDERGRADUATE STUDENTS							
5. () SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)							
6. () OTHER							
TOTAL SALARIES AND WAGES (A + B)							
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)							
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)							
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING \$5,000.)							
TOTAL EQUIPMENT							
E. TRAVEL 1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSESSIONS)							
2. FOREIGN							
F. PARTICIPANT SUPPORT COSTS							
1. STIPENDS \$ _____							
2. TRAVEL _____							
3. SUBSISTENCE _____							
4. OTHER _____							
() TOTAL PARTICIPANT COSTS							
G. OTHER DIRECT COSTS							
1. MATERIALS AND SUPPLIES							
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION							
3. CONSULTANT SERVICES							
4. COMPUTER SERVICES							
5. SUBAWARDS							
6. OTHER							
TOTAL OTHER DIRECT COSTS							
H. TOTAL DIRECT COSTS (A THROUGH G)							
I. INDIRECT COSTS (F&A) (SPECIFY RATE AND BASE)							
TOTAL INDIRECT COSTS (F&A)							
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)							
K. RESIDUAL FUNDS (IF FOR FURTHER SUPPORT OF CURRENT PROJECT SEE GPG II.D.7.j.)							
L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)							\$
M. COST-SHARING: PROPOSED LEVEL \$				AGREED LEVEL IF DIFFERENT: \$			
PI/PD TYPED NAME AND SIGNATURE*				DATE		FOR NSF USE ONLY	
ORG. REP. TYPED NAME & SIGNATURE*				DATE		INDIRECT COST RATE VERIFICATION	
						Date Checked	Date of Rate Sheet

NSF Form 1030 (10/97) Supersedes All Previous Editions

*SIGNATURES REQUIRED ONLY FOR REVISED BUDGET (GPG III.B)

PROPOSAL CERTIFICATION FORM

MONTANA TECH Office of Research and Graduate Studies (ORGS)

ORGS Proposal #:

I. PROCEDURES: Investigator(s) should fill out this form, obtain all required signatures, and submit this form plus one copy of the Proposal to the Office of Research. **Please allow 2-3 working days PRIOR to deadline for Administrative Review.**

Date Submitted: _____	Deadline: _____	RFP #: _____	Copies Required: _____
PI Name: _____	Department: _____		
Co-PI name(s): _____	Department: _____		
Proposal Title: _____	Department: _____		
Abbreviated Title (4-5 words): _____			
Funding Source Name(s): _____			
Funding Source Type(s): (circle) Federal State Industry Non-Profit Other (cities, counties, conservation districts, etc.)			
Total Request from Sponsor	\$ _____	Total IDCs Requested:	\$ _____
Match Amount: MT Tech	\$ _____	(Section III Required)	Project Duration: _____
Match Amount: Other	\$ _____	Starting Date:	_____
Total Project:	\$ _____	Ending Date:	_____

II. UNIVERSITY OBLIGATIONS: *(To be completed Principal Investigator)*

Be especially careful to respond fully to the following items. It is imperative that all University obligations and responsibilities both during the grant period and afterward be clearly defined and explained.

<u>WILL MONTANA TECH BE OBLIGATED TO:</u>		
YES	NO	
_____	_____	(a) provide faculty release time? IF YES , please have Department Head review & approve _____.
_____	_____	(b) provide space in addition to that which is now allocated to the academic unit? IF YES , please have Rollo Shea review & approve _____.
_____	_____	(c) purchase or acquire any equipment? IF YES , please see Susan Ossello for procedures.
_____	_____	(d) provide building alterations or install any equipment? IF YES , please have Rollo Shea review & approve _____.
_____	_____	(e) hire new faculty and/or staff? IF YES , please have Department Head & Dean review & approve _____.
_____	_____	(f) change the conditions of employment of present employees? IF YES , please have Department Head & Dean review & approve _____.
_____	_____	(g) continue the program after the sponsor terminates support? IF YES , please have Department Head & Dean review & approve _____.

IF YES to any of the above, please provide appropriate approvals and more information in designated attachments.

III. MATCHING AND INDIRECT COST REINVESTMENT INFORMATION: Any cost sharing/matching mentioned in the narrative or budget needs to be listed below and approved, whether or not it meets a sponsor requirement. If cost sharing includes contributions from third parties, such as non-profit agencies, state agencies, industry sponsors, and/or private individuals, the Principal Investigator must provide written documentation. Any proposed reinvestment of collected IDCs should also be listed and approved.

<u>Matching Requirements</u>	<u>Description</u>	<u>Match Amount</u>	<u>Source of Match</u>	<u>Banner #</u>	<u>Approval</u>
Salary/Wages: PI Name	_____	\$ _____	_____	_____	_____
Other Names	_____	\$ _____	_____	_____	_____
	_____	\$ _____	_____	_____	_____
Fringe Benefits: @ _____% of \$	_____	\$ _____	_____	_____	_____
Indirect Costs: @ _____% of \$	_____	\$ _____	_____	_____	_____
Other Costs: (identify)	_____	\$ _____	_____	_____	_____
	_____	\$ _____	_____	_____	_____
	_____	\$ _____	_____	_____	_____
Total Match:		\$ _____			
<u>Indirect Costs Reinvestment:</u>		\$ _____			
Total IDC Reinvestment		\$ _____			

Office of Research

IV. PROCEDURAL INFORMATION: Detailed information is available in the **Principal Investigator's Handbook** located on the Research Office Web page at <http://www.mtech.edu/research/proposalprep/proposalprep.htm>

YES	NO	
_____	_____	(1) Will this project utilize human subjects? <i>(If Yes, your IRB approval or a completed and signed IRB proposal must be submitted to ORGS at the time the grant application is brought in for final signature prior to submission to funding agency. If this will be a federally funded project, also attach an extra copy of the grant application for the IRB.)</i>
_____	_____	(2) Will this project utilize radioactive materials, biohazardous or hazardous chemicals, and/or generate radioactive, biohazardous, or hazardous waste? <i>(If Yes, review and approval from the Environmental Health and Safety Coordinator must be obtained on signature line.)</i>
_____	_____	(3) Will this project present possible exposure to bloodborne pathogens or utilize recombinant DNA? <i>(If Yes, review and approval from the Environmental Health and Safety Coordinator must be obtained on signature line.)</i>
_____	_____	(4) Have you reviewed personnel salary rate requirements with the Office of Budget and Human Services and the Office of Contracts and Grants?
_____	_____	(5) Do you propose to pay extra compensation to any University employee? <i>(If Yes, it must be identified as such in the proposal budget submitted to the sponsor.)</i>
_____	_____	(6) Is the proposed activity the result of a collaborative effort with another institution, agency, or organization?
_____	_____	(7) Do you propose to utilize the services of non-University consultants? <i>(If Yes and this is federally funded, the consulting rate cannot exceed federal guidelines.)</i>
_____	_____	(8) Do you anticipate any curriculum changes or additions?
_____	_____	(9) Does your proposed project offer academic credit? <i>(If Yes, appropriate Dean must also sign this Certification Form.)</i>
_____	_____	(10) Does the proposed project involve cost sharing or matching funds? <i>(If Yes, complete Cost Sharing Section III above.)</i>
_____	_____	(11) Does your proposed project require the reinvestment of collected Indirect Cost funds? <i>(If Yes, complete Cost Sharing Section III above.)</i>
_____	_____	(12) Does the proposal contain proprietary information that could result in a patent or copyright? <i>(If Yes, contact ORGS for guidance on marking the proposal to protect the intellectual property.)</i>
_____	_____	(13) In accordance with the Montana Tech <u>Conflict of Interest Policy</u> regarding financial disclosure, YOUR INITIALS HERE _____ certify that you have no financial disclosure and are in compliance with federal, state, and University regulations regarding Conflict of Interest. If you feel you may have a potential conflict of interest, please contact the ORGS. <i>(This should be initialed by the Principal Investigator and all Co-Principal Investigators.)</i>



V. REVIEW AND APPROVAL: **I/We** certify that staff time of individuals involved, faculty release time, space, equipment, facilities, hazardous material disposal, alterations, cost sharing funds, etc. required for this project are available or are a part of the direct costs requested in the proposal. **I/We** certify that all information on this form is correct.

I/We have read the information on the Web page: <http://www.mtech.edu/research/proposalprep/proposalprep.htm> and understand **my/our** responsibilities as **Principal Investigator** and **Co-Principal Investigator**.

	Signatures	Date
Principal Investigator	_____	_____
Co-PI (s)	_____	_____
Department Head (s)	_____	_____
Dean (s)	_____	_____
Physical Plant Director (if required)	_____	_____
Environmental Health & Safety	_____	_____
Director, Contracts & Grants	_____	_____
Associate Vice Chancellor for Research	_____	_____

PROPOSAL CERTIFICATION FORM INSTRUCTIONS

MONTANA TECH Office of Research and Graduate Studies (ORGS)

I. SUBMISSION PROCEDURES

The Proposal Certification Form must be completed by the Principal Investigator for all proposals or applications submitted to outside organizations seeking financial support of research, creative activities, and/or any other special projects that may result in a contract, grant, or other agreement with Montana Tech. The **Proposal Certification Form** must be reviewed and signed by the Principal Investigator, Co-PI(s), Department Head(s), Dean(s), Physical Plant Director (if required), Environmental Health and Safety Coordinator, and the Director of Contracts & Grants **PRIOR** to forwarding to the Associate Vice Chancellor for Research and Graduate Studies for final approval and certification. A new Proposal Certification Form is also required for renewal proposals submitted to sponsors for on-going, multi-year projects, if the sponsor requires a new application and a new budget each year. The form is used to obtain appropriate internal academic and administrative approvals, to generate a transmittal letter for the proposal, if needed, and to accurately track and report all Research Proposals at Montana Tech. The form is not sent to the funding sponsor. After obtaining all required signatures, please submit this form plus one copy of the Proposal to the Office of Research. Please allow 3 working days **PRIOR** to proposal deadline for Administrative Review.

ORGS Proposal Number—Leave blank. A number will be assigned upon receipt by ORGS.

Date Submitted—Enter current date your are submitting your proposal to the Research Office.

Proposal Deadline—If the sponsor has indicated a deadline for proposal submission, indicate the deadline date and whether the date is a postmark or receipt ("to be received by") deadline. It is important to indicate the date and time of the deadline since there are some limitations in the time of day (and number of days) we can get a proposal delivered. For example, at the time of this writing, Federal Express pick up is at 3:00 pm, however other limitations or deadlines for smaller cities may exist. If the proposal is being submitted in response to a Request for Proposals (RFP) or Announcement, indicate the RFP or Announcement number, and **enclose a full copy of the RFP** if you want the Research Office to mail your proposal. Enter the number of copies required by the sponsor (including the signed original), add a copy for ORGS and then identify the total copies.

PI Name/Co-PIs—Enter the name of person to act in the capacity of Principal Investigator (PI). The first investigator listed is the person who will serve as lead for administrative purposes that will include serving as the primary manager in the event of an award. Enter the name(s) of all Co-PIs.

Department—List the Montana Tech department, organization, program, or unit where the PI is assigned. Unless additional information is provided, this will determine which organizational unit will receive Indirect Cost Recovery funds generated from the grant. Also include department names for all Co-PIs.

Proposal Title—Provide the title in its entirety.

Abbreviated Title—Provide an abbreviated title (not to exceed five words) by which the title can be identified internally and entered into our database.

Funding Source Name and Type—Indicate the name of the funding sponsor(s) and circle the type of funding source for the primary sponsor.

Requested Amount—Provide proposed cost figures for the current budget period. If Montana Tech is sharing in the cost of the project, enter the value of the contributed costs including indirect costs and fill out the **Section III** entitled "**Matching and IDC Reinvestment Information.**" Cost sharing is discouraged unless specifically required by the funding sponsor guidelines. If any additional matches are proposed, enter them in "other."

Total Project—Provide budget figures for the entire proposed project.

IDC Requested—List the total IDCs requested.

Project Duration—Enter the entire requested start and end dates for the project (i.e., 1/1/07-12/31/10).

II. UNIVERSITY OBLIGATIONS

This section should be completed by the Principal Investigator. It is important to be especially careful to respond fully to all seven questions. It is imperative that all University obligations and responsibilities (both during the grant period and afterward) be clearly defined and explained. If **YES** to any of the questions is indicated, the appropriate approvals are required for each item and additional documentation should be attached to the form.

III. MATCHING AND INDIRECT COST REINVESTMENT INFORMATION

All cost sharing or matching referenced in the proposal must be listed, the source of funding must be indicated, and the cost share/matching funds must be approved by those accountable for the funds (typically Department Head or Dean). The Director of Contracts and Grants will use this information to track and account for the cost sharing/matching funds. If cost sharing includes contributions from third parties, such as, non-profit agencies, state agencies, industry sponsors, and/or private individuals, the PI must obtain written documentation of these funds from the contributor.

Matching Requirements—List all costs proposed as matches. Under *Description*, list specific items (name of project director, faculty, type of equipment, cash, Fringe Benefit rate, IDC rate, etc.). Indicate the source of the match and the Banner Index Number associated with that source. The match must be approved and initialed by the individual who is fiscally responsible for the Banner Index Number referenced.

Indirect Costs Reinvestment—List the amount of any proposed reinvestment of collected IDCs. The Associate Vice Chancellor for Research & Graduate Studies must approve all Indirect Costs shared and/or reinvested PRIOR to proposal submission to the funding agency.

IV. PROCEDURAL INFORMATION

This section is to be completed by the Principal Investigator and Co-Principal Investigators and reviewed by the appropriate Department Head(s) and Dean(s). Detailed information is available in the Principal Investigators Handbook on the Research Office Web page at www.mtech.edu/research/proposalprep/proposalprep.htm. PIs and all Co-PIs should initial **Item 13** to indicate that they have read, understand, and certify the conditions of Montana Tech's Conflict of Interest Policy on the Web at www.mtech.edu/research/proposalprep/Policiesprocedures.htm.

Obtain all Signatures and Approvals PRIOR to Submitting to the Research Office or to the Funding Agency.

V. REVIEW AND APPROVAL

PI and Co-PIs Signatures—All Investigators involved in this project must sign and certify that all information on this form is correct and that all Investigators have read the information on the Web page at www.mtech.edu/research/proposalprep/proposalprep.htm and understand the responsibilities as Principal Investigator and Co-PI(s). These responsibilities include but are not limited to complying with the Montana Tech Conflict of Interest Policy, Research Integrity Policy, Invention and Patent Policy (MUS) (Links to these policies are at www.mtech.edu/research/proposalprep/Policiesprocedures.htm) and the applicable Montana Tech Environmental Health and Safety Policy (located in the Principal Investigators Handbook).

Department Head(s)—Department Head/Program Director/Unit Leader must review the requirements of the proposal and, by signature, certify review of **Section II** and that staff time or individuals involved, space, equipment, facilities, hazardous material disposal, alterations, cost sharing funds, etc. required for this project are available or are a part of the direct costs requested in the proposal.

Dean(s)—Dean(s) / MBMG Director must review the requirements of the proposal and, by signature, certify review of **Section II** and that staff time or individuals involved, space, equipment, facilities, hazardous material disposal, alterations, cost sharing funds, etc. required for this project are available or are a part of the direct costs requested in the proposal.

Physical Plant Director (if required) —If the proposed work will result in additional space or any building alterations, approval is required by the Physical Plant Director.

Environmental Health and Safety—If the proposed work will result in the use of hazardous materials or the generation of hazardous wastes, the signature of the Environmental Health and Safety Coordinator is required.

Budget Approval—The Director of Contracts and Grants must review and approve all proposals for budget accuracy and must sign as indicated.

Associate Vice Chancellor for Research—The Associate Vice Chancellor for Research must provide approval of all proposed cost sharing/matching funds. The AVCR is also the Authorized Institutional Representative for final approval and certification of all Grant and Contract applications.

PROPOSAL SUBMISSION CHECKLIST

- ___ Make sure the proposal is organized in the proper order. Always make sure that the requested forms are included and are in the proper order. Refer to sponsor guidelines for a preferred proposal order and for a complete listing of special Disclosures, Certifications, and Forms that need to be included in the proposal submission.
- ___ Mark due date on the proposal. Be sure this information is clearly identified to insure delivery by the due date. Some Sponsoring Agencies will require this information to be included on the mailing label.
- ___ Obtain appropriate College approvals. Submit the proposal and applicable internal forms to the Department Head. Obtain the signature of all Department Heads involved.
- ___ Obtain Office of Grants and Contracts approvals.
- ___ Notify ORGS if you need any special assistance in submitting your proposal. Refer to sponsor guidelines to identify if special circumstances such as electronic submission are necessary. *See the special note below for NSF proposals.*

SPECIAL NOTE: For NSF proposals, *ALL National Science Foundation proposals must be submitted through FastLane (<https://www.fastlane.nsf.gov/fastlane.jsp>). FastLane proposals must be submitted through the Montana Tech Research Office. NSF conducts all business electronically, even signatures.*

- ___ Type an address label for submission. Refer to the sponsor guidelines for preparing an address label for your proposal. Many organizations require clear identification of the announcement being submitted to. For unsolicited proposals, sponsors often require identification of which Program or Department the proposal should be directed. NSF requires specific identification and prohibits proposal submission to a specific program manager.
- ___ Check for signatures. Be sure that all the authorized representatives have signed in all the necessary places. **Note:** *Never forge another person's signature or initials; this could result in dire consequences.*
- ___ Make the correct number of copies for the sponsor. Be sure the number of copies matches the requested amount. Make one extra copy for the Research Office's files.
- ___ Identify your preferred mode of delivery. Contact the Mail Room for information regarding the time frame for delivery services. Check current deadlines for FedEx and UPS. In addition, using special messenger or courier deliveries will require different mailing addresses for most agencies. The phone number of the agency Mail Room or another agency contact is required. *Always send the proposal prepaid to the sponsoring agency.*
- ___ Submit the proposal to ORGS for final approval. The Associate Vice Chancellor for Research and Graduate Studies is the Official/Authorized Institutional Representative and is designated by the Chancellor as the person who can commit the College to Grants and Contracts. One complete copy of the proposal must be submitted to the Research Office with the Proposal Certification Form at the time of submission. The Research Office can make necessary copies and send the proposal to the sponsor if notified in advance.

MONTANA TECH RESEARCH POLICIES LISTING

For additional information on Montana Tech, Montana University System, or State of Montana Regulations and Policies, contact the Montana Tech Chancellor's Office or review the appropriate Web pages. Several Web Sites are identified at the end of the *Principal Investigator's Handbook*.

Policy	Contact and Effective Date
Conflict of Interest Policy	1/1/99
Consulting Policy	Chancellor's Office
Disclosures Thesis / Presentations – Public Disclosure	3/95
Drug Free Work Place Policy	4/89
EEO/AA Policy	Personnel Office
Employment Policy Letters of Appointment for Research Faculty, Research Assistants, and Research Associates	6/98
Entertainment Procedures Policy Section 205.4 Campus Entertainment Montana University System Policy and Procedures Manual	11/91
Faculty Buyouts	10/2002
Gifts, Board of Regents Policy Donations Received by Montana Tech Gifts Received by Montana Tech	Chancellor's Office
Hiring and Recruitment Policy Montana Tech Selection and Recruitment Manual	Personnel Office
Indirect Cost (IDC) Recovery Funds Policy Collection, Redistribution, and Accounting of IDC Recovery Funds	10/97
Indirect Cost (IDC) Recovery Rate Agreement Negotiated with the US Department of Health and Human Services	7/1/2002-6/30/2006
Montana Tech Conflict of Interest Policy	Research Office
Montana Tech Safety Policy	Office of Environmental Health and Safety 11/6/98
Purchasing Procedures Policy Section 18-4-101, (1) Montana Code Annotated	11/91
Research Policies Research Faculty Salary Supplements / Revised Research Seed-Funds for New Faculty Employment Policy for Research Assistants, Research Associates, and Research Faculty	6/96 11/29/04
Respiratory Protection Policy OSHA 29 CFR 1910.134 Compliance	Office of Environmental Health and Safety, 5/98
Technical Information Embargo Policy MT TECH Faculty, Staff, and Students Participating on Research Projects	1/97
Tort Claims- Risk Management Procedures	5/94
Travel Procedures Policy State Employee Regulations	Purchasing Department (for current reimbursement rates), 11/91

MONTANA TECH EMPLOYMENT POLICY FOR RESEARCH ASSISTANTS, RESEARCH ASSOCIATES, AND RESEARCH FACULTY

Position Levels and Ranks

Montana Tech will employ, as needed, Research Assistants, Research Associates, and Research Faculty on contract work funded by state, federal, and private agencies. These positions will be advertised and competitively filled through the normal recruitment process. These contracts will be limited term, non-tenured and subject to renewal based on availability of funding. Research Faculty may be hired at three levels; Research Assistant, Research Associate, and Research Professor.

- Research Assistants shall possess a Bachelor's Degree in a field relevant to the requirements of the contract.
- Research Associates shall possess a Master's Degree in a field relevant to the requirements of the contract.
- Research Professors shall possess a Doctorate degree in a field relevant to the requirements of the contract.

For the level of Research Professor, ranks of Assistant Research Professor, Associate Research Professor and Full Research Professor shall be available. The hiring authority shall determine the rank appropriate for the candidate selected for the position. Promotion between ranks will be governed by the normal tenure and promotion policies for Montana Tech faculty, as modified by the elimination of teaching requirements. Normally candidates for the *level* of Research Professor will not be hired at the *rank* of Full Research Professor.

Base Salary

It is the policy of Montana Tech of The University of Montana that salaries paid to Research Assistants, Associates and Professors engaged in extramurally funded research should be competitive with salaries paid to their external peer academic researchers. For the purposes of this policy, a competitive annual research salary is defined as 100% of the College and University Professional Association (CUPA) average academic salary base for the equivalent discipline, rank and years of experience, corrected for a 12 month work year. The research salary will be determined at the time of hire by the Vice Chancellor for Academic Affairs and Research (VCAAR). In this determination the VCAAR will review the current CUPA average salary data for research faculty of comparable experience, discipline and rank. From this comparison will come a recommendation for the research faculty member's starting salary base. In addition, the VCAAR, in consultation with the research faculty members host department, will make an annual review of performance, promotions in rank, and market conditions and will propose appropriate adjustments to the research faculty member's base salary. In general, it is expected that these salary increases will be limited to changes in the CUPA average salary base unless extraordinary circumstances are present.

The attached figure presents the current CUPA data for average academic year salaries (9 or 10 month contracts) currently paid in the US. This chart will be used as a guideline for determining the starting salaries for new hires in the category of Research Professors at Montana Tech corrected for his or her contract term.

If a Research Assistant, Research Associate or Research Professor chooses to perform teaching duties at Montana Tech, then the salary earned for that portion of his work week shall be governed by the rates appropriate to academic teaching faculty of the same experience, discipline and rank.

Contract Term

These contracts will be issued for a specified time, typically 12 months. They will accrue vacation and sick leave at the rate of 1-3/4 days per month and 1 day per month, respectively. These positions will also be eligible to declared holidays for the general staff. These positions will not be eligible for college breaks and vacations. Any time taken away from work during academic recesses must be reported as vacation time.

Research Assistants, Research Associates, and Research Faculty may engage in outside consulting activities that are consistent with Montana Tech and Montana University System Policies. All outside consulting must be approved by the employee's supervisor and the Chancellor. Time spent on consulting during the normal work week shall be reported as vacation leave or leave without pay unless specific contract provisions provide otherwise.

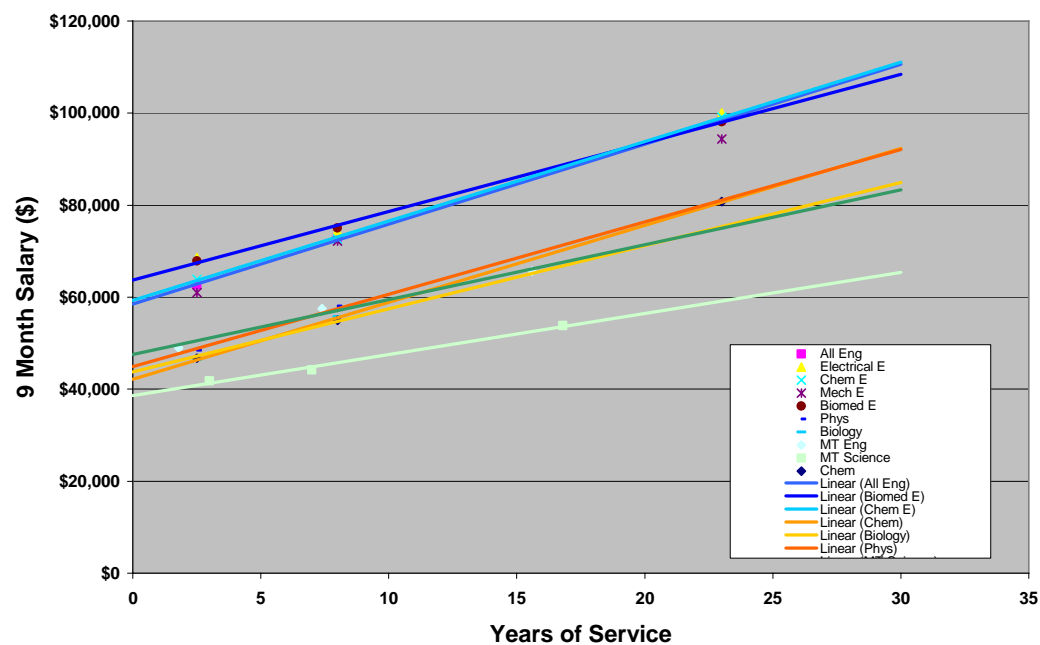
Accrual of sick and vacation leave:

Support contracts will be charged for accrued sick and vacation leave on a monthly basis and these funds will accrue to the general leave fund. Sick and vacation time will be charged against the general leave fund as they are used. Any termination costs for unused sick and vacation leave will be paid from the general leave fund in amounts as prescribed by current Montana Tech policy.

Effective Date:

This policy is effective January 1, 2005.

CUPA Salaries 2003



Assumptions:

Average time in service for Assistant Professor is 2.5 years

Average time in service for Associate Professor is 8 years

Average time in service for Full Professor is 23 years

Average Promotion times; 5 years to Associate, 11 years to Full

MONTANA TECH CONFLICT OF INTEREST POLICY

Montana Tech of The University of Montana

PERSONNEL POLICIES

Policy: Conflict of Interest and Financial Disclosure
 Date Adopted: 12-18-98
 Revisions:
 Effective Date: 1-1-99
 Approved By:

I. Statement of General Policy

Montana Tech of The University of Montana actively encourages interactions with both the public and private sectors as an important component of its research, education, and public service activities. Research, educational, and public service activities supported by grants, contracts, or gifts from public and private entities and individuals provide a valuable source of funds, equipment, and topics for Montana Tech of The University of Montana activities. Professional interactions, including consulting arrangements, between faculty and governmental entities and private businesses, advance Montana Tech of The University of Montana's ability to provide a high-quality research and educational experience for students, and thus enhance their employment opportunities. Montana Tech of The University of Montana's licensing of technology, assisting in new business start-ups, and other forms of technology transfer to both public and private entities, are critical to meeting society's needs.

Montana Tech of The University of Montana and its employees are committed to conducting themselves and their activities in accordance with the highest standards of integrity while remaining in compliance with state and federal ethics, and conflict of interest legal requirements applicable to the University. Interactions with the private sector carry an increased risk of conflict of interest. Montana Tech of The University of Montana's responsibilities in this area include the identification of the potential for conflicts of interest and the assurance that they do not improperly affect Montana Tech of The University of Montana in its relationship to sponsored projects involving research, education, and public service activities. It is the purpose of this policy to set forth the principles for identifying such potential conflicts and the procedures for reviewing and addressing potential conflicts that might occur. It seeks to protect the University faculty and staff so that public trust and confidence is ensured.

It is not the intent of this policy to regulate or eliminate all perceived conflicts of interest, but rather to enable University employees to recognize situations that may raise legal and ethical issues and ensure that such situations are properly reviewed and, if necessary, supervised or monitored in accordance with applicable state law and federal regulations. Thus, an integral part of this policy is a disclosure mechanism whereby faculty members regularly analyze their activities. This policy and accompanying procedures are intended to maintain the professional autonomy of faculty inherent in research, scholarship, and teaching. Additionally, this policy is intended to meet and conform to written federal conflict of interest regulations as required for institutions of higher education that receive grant and contract funds. Compliance with this policy is required by all Montana Tech of The University of Montana employees.

II. Definitions

As used throughout this policy,

FACULTY MEMBER and/or **EMPLOYEE** (hereafter "a faculty member") means any person possessing either a full-time or part-time appointment at the University receiving wages and/or benefits from Montana Tech of The University of Montana who is responsible for designing, conducting, or reporting the results of actual or proposed research, educational, or public service activities. This includes any individual who has independent responsibility for the accomplishment of project objectives. The policy also includes those individuals, whether salaried or not salaried, who, on behalf of Montana Tech of The University of Montana, are responsible for writing, submitting, and managing externally sponsored activities awarded to Montana Tech of The University of Montana by contract, purchase order, grant, cooperative agreement, or other such authorizing instrument. Additionally, this policy includes any student or other person responsible for designing, conducting, or reporting the actual or proposed research, educational, or public service activities. For purposes of this policy, the definition of "faculty member" also includes members of the individual's immediate family.

An **ASSOCIATED ENTITY** of a faculty member is any business, trust, organization, or enterprise over which the employee, alone or together with an immediate family member, has a significant financial interest.

BUSINESS means any corporation, partnership, sole proprietorship, firm, franchise, association, organization, holding company, joint stock company, receivership, business or real estate trust, or any other nongovernmental legal entity organized for profit, not-for-profit, or charitable purposes.

EXECUTIVE POSITION refers to any position that includes responsibilities for a significant segment of the operation or management of a business.

A **SIGNIFICANT FINANCIAL INTEREST** in a business means anything of monetary value, including but not limited to: salary or other payments for services (e.g., consulting fees or honoraria); equity interests (e.g., stocks, stock options, or other ownership interests); and intellectual property rights (e.g., patents, copyrights, or royalties from such rights).

For the purposes of this policy, disclosure of a significant financial interest is required when the interest in a single business by a faculty member or by an immediate family member exceeds \$10,000 in annual income of all types in the past twelve months, and equity or ownership interest from all sources in a single entity exceeds five (5) percent ownership. Disclosure is also required when an immediate family member holds an executive position in a business, or holds equity or ownership interest valued at five (5) percent or more in a business. A significant financial interest does not include any interest arising solely by reason of investment in such business by a mutual, pension, or other institutional investment fund over which the faculty member does not exercise control. It also excludes:

- 1) Salary, royalties, or other remuneration from Montana Tech of The University of Montana;
- 2) Any ownership interests in Montana Tech of The University of Montana, if Montana Tech of The University of Montana is an applicant under the SBIR program;
- 3) Income from seminars, lectures, or teaching engagements sponsored by public or nonprofit entities;
- 4) Income from service on advisory committees or review panels for public or nonprofit entities;
- 5) An equity interest that, when aggregated for the faculty member and the faculty member's spouse and dependent children, meets both of the following tests: Does not exceed \$10,000 in value as determined through reference to public prices or other reasonable measures of fair market value, and does not represent more than a five percent, ownership interest in any single entity; or,
- 6) Salary, royalties, or other payments that, when aggregated for the faculty member and the faculty member's spouse and dependent children over the next twelve months, are not expected to exceed \$10,000.

GIFT means an unrestricted donation of assets to Montana Tech of The University of Montana. The donor may specify the general purpose for which the gift may be used, but there may be no other terms and conditions specified concerning the use of such assets. Assets may be in the form of cash, securities, tangible personal property, partnership interests, or pledges for assets that are assigned to Montana Tech of The University of Montana. For the purposes of this policy, disclosure is required when (a) a gift is from a business in which a faculty member has a significant financial interest and (b) the value of the gift exceeds \$10,000 in a given year.

IMMEDIATE FAMILY or FAMILY includes the faculty member's spouse or domestic partner and dependent children as determined by the definitions of the Internal Revenue Service and State of Montana law.

PARTICIPATE means to be part of the described activity in any capacity including, but not limited to, serving as the principal investigator, co-investigator, research collaborator, or provider of direct services or patient care. The term is not intended to apply to individuals who provide primarily technical support or who are purely advisory with no direct access to the research (e.g., control over its data collection or analysis). Similarly, in the case of research with human subjects, the term does not cover study participants, unless they are in an independent position to influence the study's results or have privileged information as to the outcome.

SPONSORED RESEARCH, scholarship, or creative activities mean research, training, and instructional projects involving funds, materials, or other compensation from outside sources under agreements where any of the following apply:

- 1) The Agreement binds Montana Tech of The University of Montana to a line of scholarly or scientific inquiry specified to a substantial level of detail;
- 2) A line-item budget is involved;
- 3) Financial reports are required;
- 4) The award is subject to external audit;
- 5) Unexpended funds must be returned to the sponsor at the conclusion of the project; or,
- 6) The agreement provides for the disposition of either tangible or intangible properties that may result from the activity.

For purposes of this policy, research also includes a systematic investigation designed to develop or contribute to general knowledge relating broadly to public health, including behavioral and social-sciences research. The term encompasses basic and applied research, and product development.

A CONFLICT OF INTEREST, or potential conflict of interest, occurs when there is a divergence between the faculty member's private interests and professional obligations to the University, such that an independent observer might reasonably question whether the faculty member's professional actions or decisions are determined by considerations of personal gain, financial or otherwise. A potential conflict of interest exists when a faculty member has a significant financial interest in a business that has any dealings with the University. An actual conflict of interest occurs when a faculty member has a significant financial interest in a business that could directly and materially affect, or be directly and materially affected by, the design, conduct, or use of facilities in, or reporting of, research, educational, or public service activities performed as part of the faculty member's duties at Montana Tech of The University of Montana. Actual conflicts of interest are prohibited by state law and require careful management, plus full disclosure pursuant to federal law. [NSF Notice No. 117, Investigator Financial Disclosure Policy, as amended July 1995, FR 60(132): 35820-35820; PHS Objectivity in Research; Final Rule FR 60(132):35810-35819, as amended FR 60(146):39076-39077, 45 CFR 50, 50.601-50.607 and 45 CFR 941-94.6; Montana Code Annotated, Title 2, Chapter 2, parts I and 2.]

The potential for conflicts arises because of the nature and scope of activities in which Montana Tech of The University of Montana and its faculty members and employees engage. Montana Tech of The University of Montana assumes that potential for conflicts of interests will occur regularly in the normal conduct of activities. However, it is essential that any significant potential for conflicts of interest be disclosed and reviewed by Montana Tech of The University

of Montana prior to entering into the situation or relationship. After disclosure, Montana Tech of The University of Montana can then make an informed judgement about a particular case and require appropriate oversight, limitations, or prohibitions on the activity in accordance with federal and state law. Faculty members may not engage in activities in which a conflict of interest, as defined by this policy, occurs.

III. Identification - Potential and Actual Conflicts of Interest

Significant Combinations of Activities and External Relationships

The potential for a conflict of interest arises when certain activities are proposed by the faculty member and are coupled to the existence of other external relationships. Some combinations (Category I below) are assumed not to represent a conflict of interest. Other combinations represent sufficient potential for conflict of interest (Category II below) to require review and prior Montana Tech of The University of Montana approval before the faculty member can engage in the activity. Category III below addresses a specific combination that is presumed to be a conflict of interest and is therefore not allowed.

The following is a representative, though not inclusive, list of activities and external relationships covered by this policy. The categories are general guidelines, and the application of appropriate review and oversight will always be in- accordance with the goal of maintaining the full integrity and reputation of Montana Tech of The University of Montana and its employees.

Any combination of activity and external relationship not specifically represented in Categories I-III that a faculty member reasonably believes constitutes a potential conflict of interest must be reported in writing according to the procedures described within this policy before the faculty member proceeds with such activity.

Category I - Allowable combinations of activities and external relationships.

The following are not considered conflicts of interest and do not require disclosure. They are allowable if they are consistent with other applicable federal and state laws and policies of Montana Tech of The University of Montana and the Montana University System, including applicable System and University consulting and intellectual property ownership and disposition policies:

- 1) Salary, royalties, or other remuneration from Montana Tech of The University of Montana;
- 2) Any ownership interests in Montana Tech of The University of Montana, if Montana Tech of The University of Montana is an applicant under the SBIR program;

- 3) Income from seminars, lectures, or teaching, engagements sponsored by public or nonprofit entities;
- 4) Income from service on advisory committees or review panels for public or nonprofit entities;
- 5) An equity interest that, when aggregated for the faculty member and the faculty member's spouse and dependent children, meets both of the following tests: Does not exceed \$10,000 in value as determined through reference to public prices or other reasonable measures of fair market value, and does not represent more than a five percent ownership interest in any single entity; or,
- 6) Salary, royalties, or other payments that, when aggregated for the faculty member and the faculty member's spouse and dependent children over the next twelve months, are not expected to exceed \$10,000.

Category II - Combinations of activities and external relationships for which there is a minimal to moderate potential for conflict of interest

The following combinations range from those that are considered to have, minimal to moderate potential for conflict of interest (Section A) to those that have a moderate to high potential for conflict of interest (Section B). The activities in Section A are ordinarily allowable following disclosure and, where necessary, the implementation of oversight or other management procedures. The activities, and external relationships listed in Section B require case-by-case review. Special oversight or management procedures are likely to be required (see Part V for disclosure and approval procedures).

Section A - Combinations of activities and external relationships for which there is a minimal to moderate potential for conflict of interest.

- 1) Research Activities
 - a) A faculty member participates in research on a technology, process, or product developed in whole or in part by that faculty member for which the faculty member, an immediate family member, or an associated entity is entitled to receive royalties not in excess of \$10,000 per year from an existing agreement with a business pursuant to the provisions applicable to intellectual property ownership and disposition of the Montana University System.
 - b) A faculty member assigns students, postdoctoral fellows, or other trainees to research projects for which the faculty member, an immediate family member, or an associated entity is entitled to receive royalties not in excess of \$ 10,000 per year from an existing agreement with a business pursuant to provisions applicable to intellectual property ownership and disposition of the Montana University System.

Section B - Combinations of activities and external relationships for which there is a moderate to high potential for conflict of interest.

1) Research Activities

- a) A faculty member participates in clinical trials, evaluation, or development of a technology, process, or product owned or controlled by a business in which the faculty member, an immediate family member, or an associated entity has a significant financial interest, other than royalty income-or the entitlement to future royalty income (where such actual and future royalty income does not exceed \$10,000 per year), pursuant to provisions applicable to, intellectual property ownership and disposition of the Montana University System.
- b) A faculty member assigns students, postdoctoral fellows, or other trainees to projects supported by a business (through sponsored research or a gift) in which the faculty member, an immediate family member, or an associated entity has a significant financial interest, other than royalty income or the entitlement to future royalty income (where such actual and future royalty income does not exceed \$10,000 per year), pursuant to provisions applicable to intellectual property ownership and disposition of the Montana University System.
- c) A faculty member receives Montana Tech of The University of Montana supervised sponsored research support or gifts (whether in dollars or in kind) for research from a business in which the faculty member, an immediate family member, or, an associated entity has a significant financial interest, other than royalty income or the entitlement to future royalty income (where such actual and future royalty income does not exceed \$10,000 per year), pursuant to provisions applicable to intellectual property ownership and disposition of the Montana University System.

2) Board Memberships

- a). A faculty member receives research support (sponsored research or a gift) from a business in which the faculty member or an immediate family member serves on the board of directors or advisory board, whether or not compensation is received for such services.

3) External Activities

- a) A faculty member holds an executive position in a business engaged in commercial or research activities directly related to the faculty member's Montana Tech of The University of Montana responsibilities.

- 4) Administrative Responsibilities
 - a) A faculty member has administrative responsibilities (e.g., dean, department chair, or director) on behalf of Montana Tech of The University of Montana with respect to the operation of Montana Tech of The University of Montana or any Montana Tech of The University of Montana-affiliated organization that is beneficial to a business in which the faculty member, an immediate family member, or an associated entity has a significant financial interest.
 - b) A faculty member has administrative responsibilities on behalf of Montana Tech of The University of Montana with respect to any supported research activity (sponsored research or a gift) in which the faculty member, an immediate family member, or an associated entity has a significant financial interest in the sponsor or donor.
- 5) Professional Referrals
 - a) Except for consulting activities that conform to applicable Montana Tech of The University of Montana and Montana University System consulting policies, a faculty member, while performing Montana Tech of The University of Montana duties, makes professional referrals to a business in which the faculty member, an immediate family member, or an associated entity, has a significant financial interest of which the faculty member is aware or reasonably should be aware.

Category III - A combination of an activity and an external relationship that is prohibited.

The following activity creates a conflict of interest and is not allowed:

- 1) Purchasing goods or services
 - a) A faculty member participates in decisions to purchase goods or services for Montana Tech of The University of Montana in a manner which violates applicable federal or state purchasing laws, plus applicable Montana Tech of The University of Montana or Montana University System purchasing policies.

IV. Implementation - Assurance of Compliance and Financial Disclosure

Successful implementation of this policy assumes a shared responsibility by all faculty members and the administration of Montana Tech of The University of Montana. Faculty members are expected to comply with all disclosure requirements described below, but may initiate review at any time through written disclosure to the Vice Chancellor for Research and Graduate Studies. Once a faculty member's proposed research, educational, or public service activities have been administratively reviewed, Montana Tech of The University of Montana administration has the

responsibility to support the activity so long as the faculty member complies with the disclosure requirements, other Montana Tech of The University of Montana policies, and state and federal law.

A. *Disclosure Requirements*

Requirements for disclosure of significant financial interests:

Any time a faculty member plans to initiate an activity that may be classified under *Category II* of this policy, the faculty member must disclose it and obtain prior approval from the Vice Chancellor for Research and Graduate Studies. For the purpose of this policy, disclosure is required when the faculty member, an immediate family member, or an associated entity has a significant financial interest which could directly and materially affect, or be directly or materially affected by, the faculty member's actual or proposed Montana Tech of The University of Montana activity, (including any actual or proposed federally funded research) before such activity is proposed or begun.

Additionally, disclosure and prior approval are required when the interest in a business by a faculty member, an immediate family member, or associated entity exceeds \$10,000 in the past twelve months or represents more than a five (5) percent ownership interest for any one enterprise or entity when aggregated, or when salaries, royalties, or other payments, when aggregated for the past twelve months, exceed \$10,000.

1) Disclosure when submitting a proposal for sponsored activities with an external agency:

All faculty members making an application to any external agencies must complete the *Proposal Identification and Clearance Form*. The initials of the faculty member on *Proposal Identification and Clearance Form* certify that the faculty member has read and understood this policy and that 1) the faculty member does not have a conflict of interest and is in compliance, or 2) that the faculty member has appropriately disclosed, in writing to the Vice Chancellor for Research and Graduate Studies, any significant financial interest which could create a conflict of interest, or a potential conflict of interest, and has been found to be in compliance. The Vice Chancellor for Research and Graduate Studies, from the written disclosure, will determine a strategy to manage, reduce, or eliminate the potential conflict.

2) Update of disclosure:

If a faculty member obtains new reportable significant financial interests during the period of an award, the faculty member must disclose in writing such changes to the Vice Chancellor for Research and Graduate Studies. The Vice Chancellor for Research and Graduate Studies, from the written disclosure, will determine a strategy to manage, reduce, or eliminate the potential conflict.

3) Disclosure when involved with review or advisory activities:

All faculty members must temporarily disqualify themselves from any Montana Tech of The University of Montana committee or review process that is considering an activity in which they have a significant financial interest.

In addition, faculty members must also disclose to committee chairs and the appropriate administrator or executive officer any interest (business, financial, or family) that might cause the faculty member to compromise judgement while serving as a committee member or making advisory decisions. An example is serving in an executive position for any organization that does business with Montana Tech of The University of Montana or sets policies or rules that affect activities of Montana Tech of The University of Montana.

B. Review of Disclosures

1) Purpose of review:

The general purpose of review is to assist employees and Montana Tech of The University of Montana in avoiding or controlling risks to integrity and reputation engendered by such relationships, while at the same time protecting and furthering the interests of faculty members, Montana Tech of The University of Montana, and society in the activities Supported by sponsored research and gifts.

Examples of conditions or restrictions that might be imposed to manage, reduce, or eliminate actual or potential conflicts of interest include but are not limited to:

- public disclosure of significant financial interests;
- monitoring of research by independent reviewers;
- modification of the research, educational, or public service activities plan;
- disqualification from participation in all or a portion of the research;
- divestiture of significant financial interests; or,
- severance of relationships that create potential conflicts of interest.

If the Vice Chancellor for Research and Graduate Studies determines that imposing conditions or restrictions would be either ineffective or inequitable, and that the potential negative impacts likely to arise from a significant financial interest are outweighed by interests of scientific or educational progress, technology transfer, or the public health and welfare, then the Vice Chancellor for Research and Graduate Studies may allow the activities to go forward without imposing any conditions or restrictions, as long as the activity does not violate State or Federal law.

2) Appeal/reconsideration process:

If a faculty member believes the conditions or restrictions are inappropriate, the faculty member may appeal or ask for the decision to be reconsidered. Vice Chancellor for Research and Graduate Studies will then refer the appeal to a Conflicts of Interest Review Committee (CIRC) (see Part VII for membership and guidelines) to have the activity reconsidered. Upon completion of the review, the Vice Chancellor for Research and Graduate Studies will consider the CIRC recommendation(s), if any. If a faculty member believes that there exists cause for further review, the faculty member may appeal to the Chancellor of Montana Tech of The University of Montana who shall make a determination of the appeal. If a faculty member believes that there exists cause for further review, the faculty member may appeal to the President of The University of Montana who shall make a final determination of the appeal. A faculty member who disagrees with the President's decision may appeal to the Montana Commissioner of Higher Education and exercise any applicable rights permitted by the Montana University System. No award will be accepted by the University while any appeal is pending.

C. Reporting and Record Retention

The Vice Chancellor for Research and Graduate Studies will report to external sponsoring agencies as required by the agencies 1) the existence of any conflict of interest found by Montana Tech of The University of Montana, and 2) actions taken to manage, reduce or eliminate the conflict. The Vice Chancellor for Research and Graduate Studies will maintain records of all *Proposal Identification and Clearance Forms*, written disclosures, and all actions taken by Montana Tech of The University of Montana, on an award-by-award basis, for at least three (3) years beyond the termination of the award or until resolution of any action by Montana Tech of The University of Montana or governmental agencies involving the records. All records will be maintained in a manner to protect sensitive and confidential information consistent with state and federal law. To the extent required by law or requested by the sponsor, the Vice Chancellor for Research and Graduate Studies will also inform the office of general counsel of any external sponsor of Montana Tech of The University of Montana research activity whenever Montana Tech of The University of Montana finds itself unable to manage and satisfactorily resolve any conflict of interest related to the sponsor's Montana Tech of The University of Montana activities.

D. Applicability of the Policy

To the extent required by law, Montana Tech of The University of Montana will subject all subgrantees, contractors, and collaborators on externally-funded Montana Tech of The University of Montana projects to all aspects of the policy, including, but not limited to, all reports, plus compliance and disclosure certifications required in the policy.

V. Compliance

Montana Tech of The University of Montana expects faculty members to comply fully and promptly with all requirements of this policy as applicable to federal and state regulations. Breaches of this policy include, but are not limited to, intentionally filing an incomplete, erroneous, or misleading *Proposal Identification and Clearance Form*, failing to provide additional information as required, or failure to provide a written disclosure to Vice Chancellor for Research and Graduate Studies as required. A violation of this policy may be the basis for discipline of a faculty member. If sanctions are necessary, they will be imposed in accordance with applicable Montana University System policies. The potential sanctions may include, but are not limited to, the following:

- Letter of admonition;
- Ineligibility of the faculty member to submit grant applications;
- Withholding Institutional Review Board (IRB) or Institutional Animal Care and Use Committee (IACUC) approval or supervision of graduate students;
- Suspension;
- Non-renewal of probationary appointment;
- Termination

VI. Conflict of Interest Review Committees (CIRCs)

A. *Formation and Membership*

The Vice Chancellor for Research and Graduate Studies will determine whether Conflict of Interest Review Committees (CIRCs) should be organized to assist in review, or upon appeal by a faculty member, the potential for conflicts of interest regarding sponsored research and gifts. In consultation with Faculty Senate and appropriate deans, the Vice Chancellor for Research and Graduate Studies will be responsible for appointing committee members to one or more CIRCs. A CIRC may be organized by Colleges or Schools. Three-quarters of the voting membership of each CIRC will be faculty members from the area or department(s) to be served. The remaining one-quarter of the voting members will include faculty from outside the department(s). Some of the members should be individuals who have participated in approved external relationships. Faculty members whose activities are under review will have the opportunity to meet with the CIRC to discuss their situation and possible solutions.

B. *Guidelines*

The principal objective for the CIRC is to help guard faculty members and Montana Tech of The University of Montana from engaging in activities where the risk to integrity and reputation as a result of an external relationship outweighs the value of the activity to academic and societal goals. Relevant factors to consider are the nature of the financial interest, when and where the relationship commenced, whether the conditions of the relationship have changed during the past year, the likelihood of a conflict of interest (will the results of the activity likely affect or be affected by the significant financial interests), mechanisms to ensure integrity (peer review, other independent research sites, and independent monitors or controls); the importance of the proposed activity, and the availability of alternatives to avoid the conflict of interest.

MONTANA TECH OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY

TREATABILITY STUDY REGULATORY GUIDANCE

Treatability studies are excluded from regulation as a hazardous waste under the Montana Hazardous Waste Administrative Rules. The Administrative Rules of Montana (ARM) Title 17, Chapter 54, Section 201 (125) defines a “**Treatability Study**” as:

- (a) a study in which a **hazardous waste** is subjected to a treatment process to determine:
 - (i) whether the waste is amenable to the treatment process;
 - (ii) what pretreatment, if any, is required;
 - (iii) the optimal process conditions needed to achieve the desired treatment;
 - (iv) the efficiency of a treatment process for a specific waste or wastes; or
 - (v) the characteristics and volumes of residuals from a particular treatment process.
- (b) also included in this definition, for the purpose of exemptions, are liner compatibility, corrosion, and other material compatibility studies, and toxicological and health effects studies.
- (c) a treatability study is not a means to commercially treat or dispose of a hazardous waste.

Section 201 (126) defines “**Treatment**” as:

a method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize the waste or so as to render it nonhazardous, safer for transportation, amenable for recovery, amenable for storage, or reduced in volume.

Section 302 (1) defines a “**Waste**” as:

any discarded material that is abandoned, disposed of, burned, incinerated, accumulated, stored, treated, recycled or considered inherently waste-like.

Section 201 (52) defines a “**Hazardous Waste**” as:

a waste or combination of wastes, that because of its quantity, concentration, or physical, chemical, or infectious characteristics may:

- (i) cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating irreversible illness; or
- (ii) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of or otherwise managed.

The Environmental Protection Agency (**EPA**) in the Resource Conservation and Recovery Act (**RCRA**) of 1976 and the Hazardous and Solid Waste Amendments (**HSWA**) of 1984 declares a solid waste to be a **hazardous waste** if it exhibits any of the following characteristics listed in 40 CFR 261:

- . 261.21 **Characteristic of Ignitability:** a liquid, other than an aqueous solution containing less than 24% alcohol by volume and has a flash point of 60° C (140° F); is not a liquid but is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes, and when ignited burns so vigorously and persistently that it creates a hazard, or is an ignitable compressed gas as defined by DOT.

261.22 **Characteristic of Corrosivity:** it is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5; or it is a liquid that corrodes steel at a rate greater than 6.35 mm (0.25 inches) per year.

261.23 **Characteristic of Reactivity:** if it is normally unstable and readily undergoes violent change without detonating; reacts violently with water; forms a potentially explosive mixture with water; generates toxic gases, vapors or fumes when mixed with water; is a cyanide or sulfide bearing waste which can generate toxic gases, vapors or fumes; is capable of detonation or explosive reaction when subjected to a strong initiating source or if heated under confinement; is readily capable of detonation or explosive decomposition or reaction under standard temperature and pressure.

261.24 **Characteristic of Toxicity:** if the extract from a characteristic sample contains any of the contaminants listed below at the concentration equal to or greater than the respective value:

<u>Contaminant</u>	<u>Regulatory Level (mg/l)</u>
Arsenic	5.0
Barium	100.0
Benzene	0.5
Cadmium	1.0
Carbon tetrachloride	0.5
Chlordane	0.03
Chlorobenzene	100.0
Chloroform	6.0
Chromium	5.0
o-Cresol	200.0
m-Cresol	200.0
p-Cresol	200.0
Cresol	200.0
2,4-D	10.0
1,4-Dichlorobenzene	7.5
1,2-Dichloroethane	0.5
1,1-Dichloroethylene	0.7
2,4-Dinitrotoluene	0.13
Endrin	0.02
Heptachlor (and its epoxide)	0.008
Hexachloroethane	3.0
Lead	5.0
Lindane	0.4
Mercury	0.2
Methoxychlor	10.0
Methylethyl ketone	200.0
Nitrobenzene	2.0
Pentachlorophenol	100.0
Pyridine	5.0
Selenium	1.0
Silver	5.0
Tetrachloroethylene	0.7
Toxaphene	0.5
Trichloroethylene	0.5

2,4,5-Trichlorophenol	400.0
2,4,6-Trichlorophenol	2.0
2,4,5-TP (Silvex)	1.0
and Vinyl chloride	0.2

In addition, the EPA lists 39 wastes from non-specific sources (the F list) in 40 CFR 261.31, another 151 wastes from specific sources (the K list) in . 261.32, and over 200 chemicals are listed as acute hazardous wastes (the P list), and over 400 chemicals are considered toxic wastes (the U list) in . 261.33.

- ** Your client should know for sure if the substance you plan to work with is a hazardous waste. If your client is unsure, this office is available to assist you and your client in determining if the substance is a hazardous waste.

This gargantuan definition of a hazardous waste would most likely include every waste undergoing research here at Tech. That would mean that Tech would need a hazardous waste management permit and each waste treated would be subject to RCRA's "cradle-to-grave" legislation. This would necessitate adherence to strict labeling, manifesting, handling, transportation, storage, treatment, and disposal requirements, as well as the record keeping and reporting requirements for each hazardous waste. If you think you are short on valuable time in the lab now, think what your day would be like if you had to comply with this mountain of regulatory requirements! Aren't you glad treatability studies are excluded from regulation as a hazardous waste?

However, the Montana Department of Environmental Quality (**MDEQ**) requires that samples collected for the purpose of conducting a **treatability study** must comply with Title 17, Chapter 54, Section 307(4) and (5) of the ARM. Sorry folks, Nullum Gratuitum Prandium or "There is no free lunch!" Before you start wasting some of your best expletives on the establishment, know that these requirements are not too demanding, but must be followed.

The provisions of ARM 17.54.307(4) apply to persons who generate or collect samples of hazardous waste for the purpose of conducting a treatability study. In most cases this will be your client, but these requirements could apply to you if you are the one collecting and shipping or transporting the samples. This section states that:

- (a) Persons who generate or collect samples for the purpose of conducting treatability studies are not subject to any requirement of hazardous waste management when:
 - (i) the sample is being collected and prepared for transportation by the generator or sample collector,
 - (ii) the sample is being accumulated or stored by the generator or sample collector prior to transportation to a laboratory or testing facility, or
 - (iii) the sample is being transported to the laboratory or testing facility for the purpose of conducting a treatability study.
- (b) The exemption is applicable to samples of hazardous waste being collected and shipped for the purpose of conducting treatability studies provided that:
 - (i) the generator or sample collector **uses** (in the treatability studies) **no more than** 1,000 kg (2,200 lbs.) of any non-acute hazardous waste, 1 kg (2.2 lbs.) of an acute hazardous waste or 250 kg (550 lbs.) of soils, water, or debris contaminated with acute hazardous waste for each process being evaluated for each generated waste stream;

- (ii) the mass of each sample **shipment does not exceed** 1,000 kg (2,200 lbs.) of any non-acute hazardous waste, 1 kg (2.2 lbs.) of an acute hazardous waste or 250 kg (550 lbs.) of soils, water, or debris contaminated with acute hazardous waste; and
- (iii) the sample must be packaged so that it **will not leak, spill or vaporize** from its packaging during shipment and:
 - (A) the transportation of each sample shipment complies with US DOT, USPS or any other applicable shipping requirements; or
 - (B) if the US DOT, USPS, or shipping requirements do not apply, the following **information must accompany the sample**:
 - (I) the name, mailing address, and telephone number of the originator of the sample;
 - (II) the name, address, and telephone number of the facility that will perform the treatability study;
 - (III) the quantity of the sample;
 - (IV) the date of the shipment; and
 - (V) a description of the sample, including its EPA hazardous waste number (this office can determine the EPA number for you if your client does not know it).
- (iv) the sample is shipped to a laboratory or testing facility that is exempt (like Tech) or has an appropriate hazardous waste management permit.
- (v) the generator or sample collector **must maintain a copy** of the following documentation for a period ending **3 years** after completion of the treatability study:
 - (A) all shipping documents;
 - (B) the contract with the facility conducting the treatability study;
 - (C) documentation showing:
 - (I) the amount of waste shipped under the exemption;
 - (II) the name, address, and EPA identification number of the facility that received the waste (call this office at ext. 4463 to get Tech's EPA identification number);
 - (III) the date the shipment was made; and
 - (IV) whether or not unused samples and residues were returned to the generator.
- (iv) the generator **must report the information in (C) above in its annual report** required under ARM 17.54.426.

- (c) The department may grant requests on a case-by-case basis for quantity limits in excess of those specified in (b)(I) above.

The provisions of ARM 17.54.307(5) apply to samples undergoing treatability studies and to the testing facilities (like Tech) at which such treatability studies are conducted. In other words, **“THIS IS WHAT YOU HAVE TO DO TO STAY IN COMPLIANCE!!”** This section states that:

Samples undergoing treatability studies and the laboratory or testing facility conducting such treatability studies are not otherwise subject to the requirements of the hazardous waste regulations provided that the conditions (a) - (k) below are met:

- (a) No less than **45 days before conducting a treatability study**, the facility must notify the department in writing that it intends to conduct a treatability study under this section.

- (b) The facility conducting the treatability study must have an **EPA identification** number (again, Tech has one - contact the Office of Environmental Health and Safety at ext. 4463 to get this number).
- (c) No more than a total of 250 kg (550 lbs.) of “as received” hazardous waste may be subject to initiation of treatment in all treatability studies **in any single day**. “As received” waste refers to the waste as received in the shipment from the generator or sample collector.
- (d) The quantity of “as received” hazardous **waste stored** at the facility for the purpose of evaluation in treatability studies **may not exceed** 1,000 kg (2,200 lbs.), the total of which may include 500 kg (1,100 lbs.) of soil, water or debris contaminated with acute hazardous waste or 1 kg of acute hazardous waste. This quantity limitation does not include:
 - (i) treatability study residues; and
 - (ii) treatment materials (including nonhazardous waste) added to the “as received” hazardous waste.
- (e) No more than 90 days may elapse from the time the treatability study has been completed, or no more than 1 year may elapse from the generator or sample collector ships the sample to the laboratory or time the treatability study, whichever date first occurs.
- (f) The treatability study may **not** involve the placement of hazardous waste **on the land or the open burning** of a hazardous waste.
- (g) The facility must **maintain records for 3 years** following the completion of the treatability study that show compliance with the treatment rate limits, the storage limits, and the quantity limits. The following specific information must also be included for each treatability study conducted:
 - (i) the name, address, and EPA identification number of the generator or sample collector of each waste;
 - (ii) the date the shipment was received;
 - (iii) the quantity of waste accepted;
 - (iv) the quantity of “as received” waste in storage each day;
 - (v) the date the treatment study was initiated and the amount of “as received” waste introduced into treatment each day;
 - (vi) the date the treatability study was concluded; and
 - (vii) the date any unused sample or residues generated from the treatability study were returned to the generator or sample collector, or if sent to a designated facility, the name of the facility and the EPA identification number.
- (h) The facility conducting the treatability study must also keep, on-site, **a copy of the treatability study contract and all shipping papers** associated with the transport of treatability study samples to and from the facility for a period ending 3 years from the completion date of the treatability study.
- (i) The facility must prepare and **submit a report** to the Montana Department of Environmental Quality **by March 15** of each year that estimates the number of studies, the amount of waste expected to be used in treatability studies, during the current year, and that includes the following information for the previous calendar year:

- (i) the name, address, and EPA identification number of the facility conducting the treatability studies;
 - (ii) the types (by process) of treatability studies conducted;
 - (iii) the name, address, and EPA identification number of facilities for whom studies have been conducted;
 - (iv) the total quantity of waste in storage each day;
 - (v) the quantity and types of wastes subjected to treatability studies;
 - (vi) when each treatability study was conducted; and
 - (vii) the final disposition of residues and unused sample from each treatability study.
- (j) The facility conducting the treatability study must determine whether any unused sample or residue generated by the treatability study is hazardous waste under ARM 17.54.303. If so **any residues and unused samples are returned to the sample originator** under (4) of this rule.
- (k) The facility must notify the Montana Department of Environmental Quality in writing when the facility is no longer planning to conduct any treatability studies at the site.

There are more exclusions to the hazardous waste regulations. They are also listed in ARM 17.54.307 and include **some** wastes from the following sources:

- (a) household wastes;
- (b) ash wastes from the combustion of coal or other fossil fuels;
- (c) wastes associated with the exploration, development and production of crude oil, natural gas, or geothermal energy;
- (d) waste from the extraction, beneficiation and processing of ores and minerals (this is known as the “Bevel Exclusion” and there are many exclusions to this exclusion!);
- (e) etc. etc. etc.

Also, **some** wastes from the Butte/Anaconda Superfund Sites are excluded from the hazardous waste regulations.

BEFORE you assume your particular waste is exempt from the hazardous waste regulations, **check** with the Montana Tech Office of Environmental Health and Safety at ext. 4463. The rules are sometimes difficult to follow, and unless you’ve budgeted for a **\$10,000 fine** let’s contact the MDEQ and get an official determination on your waste!

MONTANA TECH OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY

MONTANA TECH SAFETY POLICY

509. Safety Policy

Safety is a shared responsibility of all members of the Montana Tech campus. In the interest of improved safety, Montana Tech shall provide, so far as possible, a facility free of health and safety hazards. To accomplish this, Montana Tech shall comply with all occupational safety, health and environmental laws mandated by relevant local, state, and federal law or regulation.

To prevent injuries to its personnel and students, and to prevent damage to property and equipment, Montana Tech shall provide training to employees and students, as appropriate, and shall require compliance with safety regulations and procedures. In turn, each person is ultimately responsible for personal safety, and shall follow safety and health policies and procedures, exercise caution in the performance of duties, use normal safe working practices, observe and obey safety postings and rules, use and maintain personal protective equipment when needed and approved, and promptly report all accidents to the appropriate authorities.

OBJECTIVE OF THE SAFETY POLICY

The objective of the Safety Policy is to protect the health and well being of all Montana Tech employees by:

1. Decreasing the number of accidents and injuries;
2. Instituting adequate procedures to protect all property from loss and damage due to accidents;
3. Assuring that all employees clearly understand the risks that directly affect them in the performance of their duties, and providing all employees with adequate training to deal with these risks;
4. Requiring all employees to be in compliance with all safety regulations and procedures;
5. Reducing, controlling, or avoiding employee exposure to all known or suspected occupational health and safety risks;
6. Establishing and maintaining communication with all employees to keep them aware of the safety and health factors related to their jobs;
7. Establishing and maintaining an accident and injury reporting system and record keeping system in conjunction with Montana Tech's Personnel Office and the Director of Physical Facilities; and
8. Training all employees to use the reporting system.

RESPONSIBILITY FOR THE SAFETY PROGRAM

The Chancellor of Montana Tech shall:

1. Assume ultimate institutional responsibility for the general safety and health program at Montana Tech and administer the program.
2. Ensure the existence of an ongoing Hazardous Waste and Safety Committee (HWSC) and Environmental, Health and Safety Coordinator (EH&S).
3. Delegate to the HWSC and the EH&S Coordinator responsibilities for establishing procedures to be followed by all employees, students, and all those having administrative responsibilities for personnel supervision and facilities control.

4. Act on recommendations of the HWSC and the EH&S Coordinator.
5. Invest the EH&S Coordinator with the authority to interpret applicable regulations and policies, and enforce them through appropriate administrative channels.

The Hazardous Waste and Safety Committee (HWSC):

The HWSC is appointed by the Vice-Chancellor of Academic Affairs and Research. According to Administrative Rules of Montana, 24.30.2542-2546, this committee shall:

1. Hold regular meetings as necessary, but meet at least once every four months;
2. Assess potential hazards and communicate suggested hazard control information to the campus;
3. Inform employees of safety committee activities and recommendations;
4. Help motivate employees to create a culture of safety in the workplace;
5. Assist in:
 - a. development of safety rules, policies and procedures;
 - b. control of hazards;
 - c. periodic evaluation of the safety program;
 - d. inspection of the workplace;
 - e. development of safety training and awareness topics;

In addition, the Hazardous Waste and Safety Committee shall:

1. Coordinate the establishment of campus procedures and standards pertaining to safety, health, and loss control.
2. Transmit pertinent safety and health information to the EH&S Coordinator and to appropriate administrators as required.

Environmental, Health and Safety Coordinator shall:

1. Be empowered by the Chancellor to interpret and enforce all applicable regulations and policies.
2. Report to the Safety, Health and Industrial Hygiene Department Head.
3. Assist in the preparation of written procedures and standards for safe general practices in work and laboratory situations.
4. Inspect all campus facilities, including but not limited to, specific operations, lab activities, Montana Bureau of Mines and Geology activities, and student Residence Halls in conjunction with appropriate committee members at regular and adequate intervals.
5. Use emergency action procedures and confer with the appropriate campus departments and regulatory agencies for medical concerns, chemical spills, fires, bomb threats, and power loss in conjunction with other established campus emergency response policies.
6. Implement, in conjunction with academic program representatives and administrative directors, the safety and health-training activities required for specific operations and lab work that may produce hazardous situations.
7. Actively promote and be a resource for educational safety training programs for faculty, staff and students.
8. Perform record keeping for safety programs and issues, including the *Montana 200 Log and Summary of Occupational Injuries and Illnesses*, and perform accident investigations in conjunction with campus Security and the Personnel Office as appropriate.
9. Report to the Hazardous Waste and Safety Committee and the Personnel Office concerning accident reports and accident investigations.
10. Direct Montana Tech's Hazardous Waste Disposal Program, conferring with the Director of Physical Facilities, the appropriate Vice Chancellor, and/or the Chancellor.

11. Report significant issues of safety and health and/or noncompliance with this policy to the appropriate Vice Chancellor and/or Chancellor.
12. Provide a risk assessment, as requested, for ongoing or proposed operations, provide strategies for risk minimization or elimination, and develop cost estimates for implementation of these strategies.

Deans, Program Managers, and Department Heads shall:

1. Ensure that faculty, laboratory directors, and all other employees and students in their college, program or department understand safety-related procedures and policies, particularly with regard to accident reporting and safe-work practices. To achieve this end, safety meetings with employees shall be scheduled once a semester (can be included in regular departmental meeting) to discuss the following issues. These meetings shall be documented as to content and attendance, with copies of documentation being sent to the Environmental, Health and Safety Office.
 - recent accidents, if any;
 - near misses¹;
 - employee suggestions for improving workplace safety conditions;
 - results of inspections by Environmental, Health and Safety and/or the State;
 - corrective actions performed in response to hazardous conditions that were identified; and
 - any questions pertaining to the safety program, policies, and actions of the Hazardous Waste and Safety Committee
2. Act upon recommendations of the Hazardous Waste and Safety Committee and/or EH&S Coordinator to correct recognizable safety hazards.
3. Ensure that the department has a working Chemical Hygiene Plan for each laboratory, if applicable, and a Montana Tech safety manual.
4. Request training, literature, or information from the EH&S Coordinator as needed to ensure that employees understand accident reporting procedures and safe work practices.
5. Ensure that faculty, lab directors and teaching assistants enforce safety rules, report accidents promptly, and keep records of near misses for review.
6. When necessary, promptly and accurately complete an accident report form or ensure that the form is completed, and submit a copy to the Personnel Office within 24 hours of the accident or injury.

Employees shall:

1. Receive a copy of Montana Tech's Safety Policy and sign a statement acknowledging that they have received and read the policy.
2. Perform their job in compliance with safe work practices.
3. Attend required safety training programs when they are offered.
4. Promptly report to their supervisor any recognizable hazardous condition or procedure that might put an employee or student at risk. If the supervisor does not respond to the report of hazard, contact the EH&S Coordinator for follow-up.
5. Report any accidents, injuries, or exposures to hazardous chemicals to their supervisor.
6. Recognize "near misses" and report them to their supervisor; cooperate in the investigation of any near miss or accident to prevent a recurrence.
7. Understand and use approved safe work methods, and recognize potential hazards or consequences if machinery, tools or fellow employees fail to perform adequately.
8. Operate machinery or equipment only for which they have been authorized and trained.
9. Use only tools, machinery and vehicles that are in safe working order.

¹ A near miss is defined as an incident that has the potential to cause serious injury or property damage. The incident reveals a physical condition or employee action that could lead to future serious injury or property damage if not corrected.

10. Never endanger the health or safety of a co-worker, student, or the public through horseplay, practical jokes, wanton neglect, or thoughtless indifference.
11. Never be under the influence of intoxicating beverages, mind-altering substances or medication that could affect their performance on the job. See Campus Drug and Alcohol Policy also.

Students shall:

1. Students employed by Montana Tech shall be classified as employees for the purpose of this policy.
2. All Montana Tech students shall be provided with appropriate and adequate safety training by their supervisor or instructor, and shall comply with rules, standards, and requirements of the institution and department(s) in whose course(s) they are presently enrolled.
3. Perform their job or activity in compliance with safe work practices.
4. Attend required safety training programs when they are offered.
5. Promptly report to their supervisor or instructor any recognizable hazardous condition or procedure that might put an employee or student at risk. If the supervisor or instructor does not respond to the report of hazard, contact the EH&S Coordinator for follow-up.
6. Report any accidents, injuries, or exposures to hazardous chemicals to their supervisor or instructor.
7. Recognize “near misses” and report them to their supervisor or instructor; cooperate in the investigation of any near miss or accident to prevent a recurrence.
8. Understand and use approved safe job or lab methods and recognize potential hazards or consequences if machinery, tools or fellow employees or students fail to perform adequately.
9. Operate only machinery or equipment for which they have been authorized and trained.
10. Use only tools, machinery and vehicles that are in safe working order.
11. Never endanger the health or safety of a co-worker, student, or the public through horseplay, practical jokes, wanton neglect, or thoughtless indifference.
12. Never be under the influence of intoxicating beverages, mind-altering substances or medication that could affect their performance on the job. See Campus Drug and Alcohol Policy also.

SAFETY TRAINING

The Montana Safety Culture Act of 1993 and the OSHA Act of 1971 require that Montana Tech provide employee safety training and education programs. In compliance with the above, Montana Tech shall inform all employees of:

1. All hazards to which they are exposed;
2. Routes of exposure of hazard, i.e., through skin contact, inhalation, ingestion, etc.;
3. Proper precautions to protect them from exposure; and
4. Emergency treatment procedures.

To this end, Montana Tech shall provide employee safety training in the following areas:

1. New employee orientation,
2. Basic worksite safety;
3. Hazardous materials in the workplace (Hazard Communication);
4. Accident reporting;
5. Emergency procedures;
6. Use of personal protective equipment as appropriate and as approved;
7. Medical care and first aid;
8. Fire protection/prevention;
9. Materials handling and storage;
10. Machinery and equipment safeguarding; and
11. Other areas as deemed necessary by the Hazardous Waste and Safety Committee or departments.

Those in administrative or managerial positions shall provide safety training or make arrangements for safety training when:

1. A new employee or a transferred employee begins work in their department;
2. Procedures have been revised;
3. Specific information must be made available;
4. Employee performance needs improvement;
5. Loss analysis reveals trends contributing to injuries.

MEDICAL TREATMENT

Any employee who is in need of medical treatment because of a work-related accident or injury should:

1. If the injury is not life threatening, attempt to see a family physician first. If that is not possible, go to an Express Care unit or to St. James Emergency Room.
2. If the injury requires immediate attention, go to St. James Emergency Room.
3. In the event of a serious accident or injury where victims should not be moved, call 9-911 to respond.

ACCIDENT REPORTING/INVESTIGATION

All work-related accidents, whether or not an injury occurs, must be reported within one working day by telephone or in person to Personnel (4380).

If the incident involves any property damage or loss, Personnel (4380) and Rollo Shea, Physical Facilities Director, (4399) must be notified immediately.

Any **non-work related** incidents involving students or visitors must be reported within one working day by telephone or in person to Personnel (4380).

All work-related accidents involving one or more of the following shall be investigated:

1. Injury or death involving a Montana Tech employee. Injury or death of a student will be included in this section if the injury or death occurs on campus.
2. Damage to Montana Tech property and/or vehicle in excess of \$250.00.

The immediate supervisor or department head shall make the initial investigation and report using the State Fund *First Report of Occupational Injury or Occupational Disease*. If the injury involves a student or visitor, the *Montana Tech of University of Montana First Report of a Student/Visitor Incident* must be used. The completed form shall be sent to the Personnel Office within twenty-four hours of the incident. The Personnel Office will coordinate with the EH&S Coordinator to investigate the incident.

An accident report **must** be initiated:

- Even if the employee does not seek medical attention. This protects both the employee and Montana Tech. If an employee does not complete a report form and later decides to see a doctor, Montana Tech has no documentation that the accident occurred at work, and the claim may be questioned or challenged by Montana Tech and the Worker's Compensation carrier, and consequently may be denied.
- Even if no injury or property damage resulted from the incident. A "near-miss" signals that something is not right and should be investigated to prevent further incidents.

In the event of:

- the death of any employee from a work-related incident, or
 - the in-patient hospitalization of three or more employees as a result of a work-related incident,
- Montana Tech shall report the fatality or multiple hospitalization by telephone to the Montana Safety Bureau within 8 hours of the accident:

Kris Hunt, Butte, 782-1153, or
Dave Folsom, Helena, 444-6418.

EMERGENCY RESPONSE

Refer to Montana Tech's *Emergency Action and Contingency Plan*.

OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY EXAMPLE FORM

For office use only: Incident number _____

STUDENT/VISITOR INCIDENT INVESTIGATION

TO BE COMPLETED BY THE INVESTIGATOR	STUDENT/VISITOR NAME:	
	Brief description of incident:	
	Do you have any reason to question this incident? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, explain fully.	
	In your opinion, could this incident have been prevented? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, how?	
	POSSIBLE CONTRIBUTING FACTORS:	
	<input type="checkbox"/> Equipment or machine guards <input type="checkbox"/> Tools or equipment <input type="checkbox"/> Ventilation <input type="checkbox"/> Lighting <input type="checkbox"/> Design or construction of room/building, etc. <input type="checkbox"/> Walking surface <input type="checkbox"/> Warning system <input type="checkbox"/> Storage or arrangement within facility or room	<input type="checkbox"/> Dress or apparel <input type="checkbox"/> Work procedures <input type="checkbox"/> Weather or environment <input type="checkbox"/> Contact with toxic chemicals, skin irritant <input type="checkbox"/> Animal bite <input type="checkbox"/> Speed of operation (equipment, vehicle) <input type="checkbox"/> Use of protective equipment <input type="checkbox"/> Lifting technique <input type="checkbox"/> Other (specify)
	RECOMMENDATIONS:	
	List any actions that could be taken to correct the situation and/or prevent it from happening again:	

Responsible Person(s):

Date completed:

Additional comments:

Investigator signature

Date

MONTANA UNIVERSITY SYSTEM POLICY AND PROCEDURES MANUAL

401.2 Invention and Patents

Effective October 28, 1977; Issued November 1, 1977

Board policy:

1. All employees and units of the University System shall adhere to the following procedures with respect to patentable inventions or discoveries. The purpose of these procedures is to define the relationships among the inventor; the University System; the unit, college, school, branch, division or agency of the University System; and outside sponsors of research within the University System.
2. General objectives of this policy include dissemination of existing knowledge together with the acquisition of new knowledge and understanding through research. System research is also conducted to train students and to stimulate a spirit of inquiry, but seldom with regard to practical applications which might result. However, inventions are often by-products of research, and when such inventions are made, it may be in the public interest that the System provide the protection and control available under the patent laws. In such cases, it is the intention of the Board of Regents to provide that protection and control when practicable.

Procedures:

1. Ownership of Inventions or Discoveries

All patentable inventions made by employees of the Montana University System (including all its various units, colleges, schools, branches, divisions and agencies hereinafter called the "System"), in connection with their assigned duties and/or by the use of the System's facilities, shall be considered the property of the unit at which the inventor was employed under the following circumstances and to the following extent:

- a. Wholly the property of the unit if the person (or persons) responsible for the invention was employed by the unit specifically for that purpose.
- b. To the extent specified if the person's (or persons') contract of employment contains specific provision vesting ownership in the unit.
- c. To the extent recommended by the Unit Patent Management Committee and approved by the President if research or endeavors directly resulting in the discovery or development of the invention or marketable product involved use of unit time, materials, property, or facilities.

Under all other circumstances individual employees are free to secure, under the patent laws of the United States, the exclusive right to their inventions, consistent with Article I, Section 8, of the Constitution of the United States which grants to the Congress the power "to promote the progress of science and the useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries...".

2. Limitations

- a. This policy shall not include copyrights.
- b. Provision of normal academic environment, including library facilities, does not constitute grounds for equity by the unit in a discovery or invention.

3. Inventors' Rights and Duties

System employees retain the right and responsibility for recognizing in their work inventions that may

reasonably be marketable; and in every case, complete freedom of publication in both time and scope shall be maintained, unless agreements with outside sponsors provide otherwise as indicated below. Investigators will participate in work under such outside agreements only after they have informed themselves of such provisions and have accepted these provisions. Any employee or student to whom the conditions set forth in Section 1.a., b., and c. above applies, who believes an invention or discovery resulting from his work should be patented, shall present the matter to the Unit Patent Management Officer or Committee for consideration and disposal. Within 60 days of this presentation, the Patent Management Officer or Committee shall inform the inventor(s) in writing whether it plans to secure the patent or release the discovery to the inventor(s). In the latter case, or in case of failure by the Officer or Committee to communicate in writing within 60 days, the inventor(s) is free to secure the patent, pay all fees, and receive all benefits therefrom.

4. Submission of Patentable Inventions or Discoveries to Patent Management Officer or Committee

a. Invention Outside the System

If an invention is made and/or developed without System support of a significant degree, all rights remain with the inventor. Such inventions may be voluntarily submitted for consideration by the Unit in the System, but the inventor is under no obligation to do so. Provision of a salary or desk to an inventor by the System does not, in itself, constitute significant support. However, any invention by an employee related to an area in which he or she participates in research under unit auspices must be reported to the appropriate unit so that the question of whether the unit has provided sufficient support can be decided by the Patent Management Officer or Committee of the unit. This decision may be appealed to the System Invention Committee.

b. Invention with System Support

If an invention is made and/or developed with System support of a significant degree in time, money, materials, or facilities, the inventor must submit a full disclosure of the invention to the Patent Management Officer or Committee of the unit. Additionally, a copy of any manuscript submitted for publication shall simultaneously be submitted to the Patent Management Officer or Committee of the unit, if the author considers that it may contain marketable inventions. The Unit Patent Management Officer or Committee may advise, but not require, deferral of publication in order to protect the patent rights of the unit and the inventor.

5. Prosecution of Patents

a. Time Limits

In the event that the unit deems that a patent should be prosecuted, the prosecution shall be carried out diligently and without expense of any kind to the inventor. The inventor must assign to the unit any interest in the patent equivalent to the property interest which the Committee determines to belong to the unit or which is required by Section 1.a. or Section 1.b. The preliminary patent search must be started within 60 days from the date the matter is presented to the unit or the unit forfeits all right to the invention. If no patent application is filed within a total elapsed time of eight months following disclosure, all patent rights revert to the inventor(s).

b. Options Available to the University Unit

The inventor has an obligation to offer the unit the opportunity to develop the invention for commercial use if the invention was made under unit auspices. The unit may:

- (1) Elect to acquire title to the invention by assignment and in this case will undertake (unless

inappropriate)the timely filing of patent applications, patent prosecution development, and marketing of the invention and shall bear all related costs. If the unit desires to accept such an assignment after competent peer review, the inventor shall be obligated to make such an assignment. The inventor shall, in this instance, receive on an annual basis, 50 percent of all net income, defined as gross royalties or other payments, including any recovery of damages obtained by the unit, but less external costs incurred by the unit in obtaining and protecting the patent rights and less any direct costs of development; or

- (2) Cause the invention to be assigned to some patent management organization, such as Research Corporation or the Unit's Research Foundation. The domestic patent rights, foreign patent rights, or both, may be assigned to the patent management organization. The inventor shall receive on an annual basis 50 percent of all net royalties and other income received by the University from said patent management organization; or
- (3) *Decline to accept any rights to the invention by assignment or otherwise, in which case all rights revert to the inventor.* If a dispute arises concerning the origin of an invention or patentable discovery or any aspect of patent policy, the dispute shall be presented to the System Invention Committee for final disposition.

c. Invention Developed Under Agreement With Outside Sponsor

If the invention was made or developed under an agreement with an outside sponsor, the rights with respect to the invention shall be governed by provisions of that agreement. If not provided otherwise by the sponsoring agreement, the inventor's share of royalty or other income received from an outside sponsor shall be limited to the share he would have received had the unit supported the research entirely. If the sponsor determines that invention rights are left with the unit, the unit may elect to pursue one of the three options listed in Section 5b.

6. Distribution of Unit-retained Invention-related Income

In order to provide invention incentive and capability to unit personnel, the unit's share of invention income will be distributed as follows. Of the unit-retained share of net royalty or other income for any given invention, defined as gross receipts, less external expenditures for that invention and less the inventor's personal share two-thirds of the first \$30,000 per year, one-half of the next \$30,000 per year and one-third of the remainder will be designated through the unit budget or financial office to support the work of the inventor while employed by the unit and/or to promote discoveries at the unit. The rest will be distributed to a designated fund and will be used to support and expand research at the unit. Such distribution to support the inventor's work, derived from any given invention, will terminate after eight years from the first sale of products embodying that invention, and any earned monies after this date will go to a designated fund.

7. Development of Inventions

If the inventor becomes dissatisfied with the development of the invention as carried out by the unit, or with the unit's delay in reaching a decision, an appeal may be made to the System Invention Committee, in which the inventor may urge specific changes in the proposed course of action undertaken by the unit, or if the unit has been assigned rights to the invention, may ask that the invention rights be reassigned to a patent management organization such as Research Corporation or all rights be reserved to the inventor.

If after a period of three years from the acquisition of the issued patent by the University the invention has not been marketed, all rights revert to the inventor, unless an agreement with any outside sponsor precludes such reversion.

Definitions:

1. Employees:
 - a. Regularly employed faculty or staff members,
 - b. Part-time or special faculty or staff members,
 - c. Students employed by any of the System's units, and
 - d. Any other persons including students using any unit's facilities who are not covered by contract or agreement.
2. *Invention:* (Webster) - A device, contrivance, or process originated after study and experiment. To produce, as something useful, for the first time through the use of imagination or of ingenious thinking and experiment. The term "invention" includes improvements, discoveries, processes and anything else covered by the federal patent laws.
3. *Inventor:* A person who invents. Specifically in this policy, an employee of the System who invents.
4. *Patent:* (Webster) - A writing securing to an inventor for a term of years the exclusive right to make, use, or sell his or her invention.
5. *Unit Patent Management Officer or Committee:* The Unit Patent Management Officer or Committee will be selected by the unit president in accordance with campus procedures.
6. *System Invention Committee:* The System Invention Committee will be selected by the Commissioner of Higher Education in accordance with procedures for appointments of inter-unit committees.

History:

Item 179-000, Patent Policy, University of Montana, July 10, 1961 (Rescinded)

Item 18-007-R1077, Invention and Patent Policy, Montana University System, October 28, 1977.

—In Confidence—

Montana Tech # _____
Date Rec'd _____

**MONTANA TECH
OF
THE UNIVERSITY OF MONTANA
INVENTION DISCLOSURE**

In order to afford maximum protection and to comply with the requirements of College Policy and Government Contracts and Grants Policy it is important that inventions or discoveries, which may be patentable, be reported to the Office of Research and Graduate Studies at the earliest possible date.

PLEASE COMPLY WITH THE FOLLOWING DIRECTIONS IN COMPLETING THIS FORM:

Fill out and retain one copy as a permanent record.

Use supplemental sheets if necessary to amplify this information.

If you cannot answer any questions at this time, please so indicate.

1. Full names, addresses, and phone numbers of the inventor or inventors. Title and position (or other status)

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

2. Invention Title _____

3. Concise description of invention: Attach a description of the invention, with photographs, drawings, sketches, or any other descriptive material. Description should be sufficiently detailed to enable one skilled in the art to understand and reproduce the invention and should include the construction, the principles involved, the details of operation, and alternative methods of construction or operation. Include any supporting evidence such as copy of laboratory notes, computer programs, drawings, etc. Be certain the description covers the following points:

- (a) Problem to be solved, or purpose of the invention
- (b) How invention solves problem
- (c) Similar inventions in current use, or old manner of performing the function of the invention
- (d) Disadvantages of old means
- (e) Degree of development

4. Date and place at which discovery was made. _____

—In Confidence—

5. Names and addresses of other persons participating in the invention.

6. External funding that contributed to the invention:

A. _____ Grant No. _____

B. _____ Grant No. _____

C. _____ Grant No. _____

7. Date of Publications(s), if any _____

Where published _____

If there are any prior patent applications or patents by inventor on this subject, please list the Serial Number and filing date (include copies)

8. PLEASE INCLUDE AN ABSTRACT OF THE INVENTION. This will be used in our campaign to promote the invention, and should, therefore, be no longer than a type written page and **should not contain confidential information.**

9. MAJOR USE OR OTHER APPLICATIONS OF INVENTION. If specific commercial possibilities or companies are known; please include names and addresses on a separate page.

This disclosure is made to Montana Tech of The University of Montana under the Patent Policy in effect at this time.

Signature of Inventor(s)

Date

_____	_____
_____	_____
_____	_____
_____	_____