

Service Center Manual Forms

New Mexico Tech
Cost Accounting and Reporting
Effective November 11, 2010
Last modified April 5, 2024

The purpose of this narrative is to establish a comprehensive procedure, which governs service center operations in order to ensure compliance with government regulations. Service center activities result in charges, either directly or indirectly, to federally sponsored grants and contracts. Therefore, service center practices must comply with government regulatory costing principles such as those contained in the Code of Federal Regulations Title 2: Grants and Agreements Part 200 Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards

This document is continually being updated. We would appreciate any information and/or insight that would help us develop stronger policies for NMIMT's research community.

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All exhibits and various other templates for rate development are available in electronic format upon request from the Cost Accounting and Reporting Office.

Exhibit A. The Process of Starting and Operating a Service Center at NMIMT

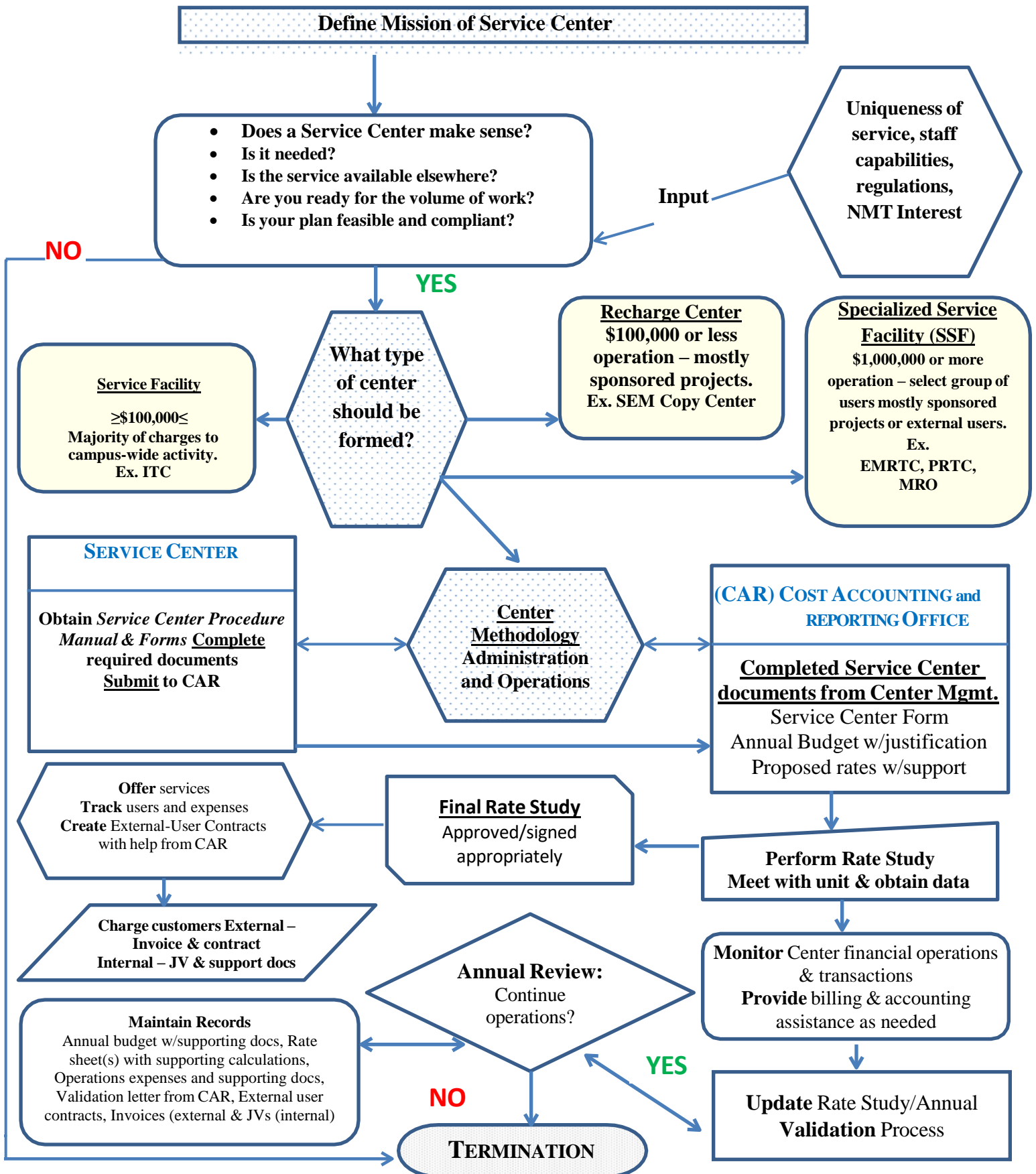


Exhibit B.

Service Center Registration Form
NEW MEXICO INSTITUTE OF MINING & TECHNOLOGY
COST ACCOUNTING AND REPORTING OFFICE
SERVICE CENTER REGISTRATION FORM

(Please complete all information and return this form to Cost Accounting and Reporting Office in Wells Hall Suite 124)

Service Center Name: _____

Initiating Department: _____

Department Back-up Fund No: _____

Service Center Manager Title E-mail address Phone Bldg/Room#

Attach a separate sheet, if necessary, to complete any of the following:

Description of Activity, including products and/or services and anticipated users (internal vs. external)

Describe the usage base to be used in the rate calculation (i.e., labor hours, number of units processed, machine time, number of users, number of samples, number of copies, pages, etc.):

Describe how records of usage will be accumulated and maintained:

Identify equipment to be used & method of recovery:

Before submitting this completed form to the Cost Accounting and Reporting Office, **please also attach an estimated budget** (example provided) for a full operating fiscal year of the service center **and** an illustration of **how proposed rates were calculated** (If it is proposed that the service center begin operations on a date other than July 1, please also provide a proposal and budget for the part of the year in which the service center will be operating.) Any questions regarding the completion of information on this form or on the required attachments may be addressed to the Cost Accounting and Reporting Office, Wells Hall, Suite 124, 835-5781. **Cost Accounting and Reporting Office retains original, fully-executed copy and returns a copy to the Service Center Manager.**

Approval Signatures:

Service Center Manager _____ Date: _____

Department Director/Chair _____ Date: _____

Cost Accountant/CAR _____ Date: _____

Controller _____ Date: _____

Budget & Analysis _____ Date: _____

Cognizant VP _____ Date: _____

Exhibit C. Financial Management of Service Centers

COST ACCOUNTING AND REPORTING OFFICE FINANCIAL MANAGEMENT OF SERVICE CENTERS

BILLING RATE COMPUTATION

A service center rate is the cost per unit of output. Output is the basis used to recover the expenses of the service center. To compute the rate, service centers should use the following equation:

$$\frac{\text{Budgeted Expenses +/- Prior Year Under- or Over-Recoveries}}{\text{Budgeted Usage Base}}$$

Budgeted usage base is the volume of work expected to be performed, expressed in units.

The two most commonly used methods to measure activity are:

Consumption Base - This type base is used when expenses are directly proportional to how much of a unit of measurement is consumed. For example, if labor and equipment usage costs can be accurately identified as being consumed on an hourly basis, the service center would base its charges on the number of hours of service provided.

Output Base - This type of base is used when the costs of the center are most accurately identified by the number of units produced per year. For example, a machine used to test samples where each test requires approximately the same amount of labor might base its charges on number of samples tested.

Example: a computer costs approximately \$120,000 per year to operate (total allowable costs) and has an estimated activity level of 1,500 hours per year. This results in a rate of $\$120,000 / 1,500 \text{ hours} = \80 per hour. If a researcher uses the computer for four hours for a sponsored project, his or her award is charged 4 hours X \$80/hour or \$320. Once the direct cost of \$320 is charged (using a Journal Voucher) to the sponsored project, the cost is subject to the indirect cost terms of the sponsored project. If the indirect cost rate for the sponsored project is 30%, then the total cost of the 4 hours of computer time is \$416 to the awarding agency. $[(\$320 \times 30\% = \$96) (\$320 + 96 = \$416)]$. The service center receives \$320.

A service center must develop rates so that revenues offset expenses over a reasonable period of time. A service center's surplus or deficit for a given fiscal year should not exceed 10% of annual operating expenses. Any service center with a surplus or deficit greater than 10% of annual expenses at the end of the fiscal year must submit a balance liquidation plan to the Cost Accounting and Reporting Office. Excess balances should be liquidated within two years.

To the extent that a surplus or deficit is within the break-even range of +/- 10%, that surplus or deficit must be carried forward and the rates adjusted in the following period.

EXHIBIT C continued

For example, the rates submitted for approval for fiscal year ending June 30, 2024 would be based on the 2024 projected volume and expenses plus/minus under/over recoveries carried forward from the fiscal year ending June 30, 2023.

Example 1: Service Center with a Surplus at year end

\$80/hour was charged for 1,600 hours of actual use in FY2023 resulting in revenue of \$128,000. Total expenses were \$120,000 resulting in a surplus of \$8,000. In FY 2024, costs are anticipated to increase by 5% resulting in a budgeted expense of \$126,000. After subtracting the surplus from FY 2023, the basis for recovery for FY 2024 is

	FY 2023 Actual		FY 2024 Budgeted
Total Revenue	\$ 128,000	Budgeted Expense	\$ 126,000
Total Expenses	(120,000)	Less Prior Year Surplus	(8,000)
Surplus	\$ 8,000	Total Budgeted Expense	\$ 118,000

Since the surplus for FY 2023 is within +/- 10% $((128,000-120,000)/120,000=6.67\%)$, it will be subtracted from budgeted expenses in FY 2024, thereby reducing the rate. Assuming the hours of use are the same for FY 2024 as they were for FY 2023, then the new rate for FY 2024 should be \$73.75 per billable hour. $(\$118,000/1600 \text{ hours})$

Example 2: Service Center with a Deficit at year end

\$80/hour was charged for 1,600 hours of actual use in FY 2023 resulting in revenue of \$128,000. Total expenses were \$136,000 resulting in a deficit of \$8,000. In FY 2024, costs are anticipated to increase by 4% resulting in a budgeted expense of \$142,800. After adding the deficit amount from FY 2023, the basis for recovery for FY 2024 is \$150,800.

	FY 2023 Actual		FY 2024 Budgeted
Total Revenue	\$ 128,000	Budgeted Expense	\$ 142,800
Total Expenses	(136,000)	Plus Prior Year Deficit	8,000
Deficit	\$ (8,000)	Total Budgeted Expense	\$ 150,800

Since the deficit for FY 2023 is within +/- 10% $[(128,000-136,000)/136,000=6\%]$, it will be added to budgeted expenses in FY 2024, thereby increasing the rate. Assuming the hours of use are the same for FY 2024 as they were for FY 2023, then the new rate for FY 2024 should be \$94.25 per billable hour. $(\$150,800/1,600 \text{ hours})$

Exhibit D. Sample Rate Calculations

EXHIBIT D

NEW MEXICO TECH
COST ACCOUNTING AND REPORTING OFFICE
SAMPLE RATE CALCULATIONS

The following examples provide a general overview of two common approaches to calculating service center rates. The "consumption" approach should be used in more labor intensive situations, while the "output" approach is used to equitably distribute costs of a common measurable product. It is important that the selected activity base relate directly with the elements of the operation that drive costs (i.e. labor or output) to keep rate calculations as simple as possible while yielding reasonable and consistent results.

EXAMPLE 1: ESTIMATING LABOR HOURS (CONSUMPTION)

A machine shop estimates that total expenses for the next year will be \$225,000. Given that there are 2 full time and 1 half time employees working in this service center and that the operations run Monday through Friday during normal University business hours, the following method could be used to develop a reasonable rate to be charged, based upon the "consumption" of the machinists' time:

1. Calculate estimated production hours per person @ 100% time:

37.5 hours/week * 38 academic weeks	1,425 hours
35.0 hours/week * 14 non-academic weeks	490 hours
Subtotal	1,915 hours
Less: Vacation (22 days * 7.37 hours/day)	162 hours
Holidays (10 days * 7.37 hours/day)	74 hours
Estimated contingency for sick and down time (10 days * 7.37 hours/day)	74 hours
Total estimated production hours per person	1,605

2. Multiply times the number of employees:

Number of employees = 2.5 * 1,605 hours/year	4,013 billable hours
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3. Divide total estimated annual costs of operation by the number of billable hours to arrive at an hourly rate:

$$\text{Consumption Rate} = \frac{\$225,000 \text{ Total Costs}}{4,013 \text{ Billable Hours}} \quad \mathbf{56.07 \text{ per hour}}$$

EXAMPLE 2: ESTIMATING UNIT COST (OUTPUT APPROACH)

A department/research center with several copiers determines that the total cost of operating the machines for a year is \$72,000 and that 1.2 million copies are made by various users. The method below may be used to determine a unit cost per copy to charge users:

$$\text{Unit Cost} = \frac{\$72,000 \text{ Total Costs}}{1,200,000 \text{ Copies}} \quad \mathbf{\$ 0.06 \text{ per copy}}$$

EXHIBIT D1	Fund 270555 - Machine Shop Proposed Budget & Rates FY 2024				
User	machine hours	Cost of Operations	Cost per Base Hour	Indirect Cost (IDC)	Charge Per Machine Hour
Base - Internal User	4,014	\$ 225,000.00	\$ 56.06	\$ -	\$ 56.06
Base + IDC			\$ 56.06	\$ 22.03	\$ 78.09
Plus FMV Adj.					11.91
External User Cost					\$ 90.00

Production Hours	Hours	Pe ople
37.5 hours/week * 38 academic weeks	1,425	
35.0 hours/week * 14 non-academic weeks	490	
Subtotal	1,915	
Less: Vacation (22 days * 7.37 hours/day)	162	
Holidays (10 days * 7.37 hours/day)	74	
Estimated contingency for sick and down time (10 days * 7.37 hours/da	74	
Estimated production hours/person	1,605	times 2.5
		4,013.65

Costs of Operation:

Student labor - routine paperwork/support (100 hrs * \$7.5/hr = \$750+2%FB) \$	765.00
Labor (2 full-time and 1 half-time machinist) + fringe benefits	99,235.00
Materials	30,000.00
Maintenance & Repairs	50,000.00
Travel & training	15,000.00
Depreciation	30,000.00
Total proposed operating costs for FY2024	\$ 225,000.00

* **FMV** = Fair Market Value

External user is one who cannot supply a NMT index/fund number to charge for the transaction.

EXHIBIT D2						
Fund 270555 - By-the-Page Service Center Proposed Budget & Rates FY 2024						
User	# of pages	Assistant Cost	Materials Cost	Cost Recovery	Indirect Cost (IDC)	Cost per Sample
Internal Unassisted	600,000	\$ -	\$0.04	\$24,525.00		\$ 0.04
Internal Assisted	590,000	\$ 0.04	\$ 0.04	\$46,683.75		\$ 0.08
External Assisted	10,000	\$ 0.04	\$ 0.04	\$ 791.25	\$ 214.43	\$ 0.10
* Plus FMV Adj.						\$ 0.05
# External User Cost						\$ 0.15
Est. annual samples:	1,200,000			\$72,000.00		

Assisted Jobs	<u>User Type</u>	<u>#</u>	<u>Cost</u>
Two students (3000 hrs * \$7.5/hr = \$750+2%FB)	Assisted	600,000	<u>\$ 22,950</u>
All jobs (including assisted jobs)			
Routine labor (1600 hrs * \$10 = \$5,000+23%FB)			21,120
Paper (\$5/reem of 500 pages)			12,000
Software upgrades			900
ITC Charges [(14 + 24) X 12] times 3 connections			1,368
ITC long distance			2,500
Copier leases			11,162
	Unassisted	1,200,000	<u>\$ 49,050</u>
Average per sample excluding IDC or FMV (not used as rate - check figures)	Average	1,200,000	\$ 0.06

* **FMV** = Fair Market Value

External user is one who cannot supply a NMT index/fund number to charge for the transaction.

Exhibit E: Allowable and Unallowable Costs in Rate Calculation

EXHIBIT E		NEW MEXICO TECH			
CALCULATION					
	External	Federal	Recharge	SSF and	
Salaries	\$ 45,000	\$ 45,000			
Fringe Benefits	13,500	13,500			
Materials & Supplies	4,050	4,050	1		1
Travel	2,250	2,250			
Insurance	300	300			2
Rental or service contracts	500	500			
Other Expenses - Allowable	400	400			
Operations & Maintenance	1,000	1,000			2
Equipment repair	1,550	1,550			
Equipment depreciation	2,500	2,500	3		3
Allocation of related Space	-	-			2 and 4
Sub Total	<u>\$ 71,050</u>	<u>\$ 71,050</u>			
Add					
Sales tax if/when applicable	500	-	6		6
Amt. Invoiced/JV'ed	<u>\$ 71,550</u>	<u>\$ 71,050</u>			
Less					
Unallowable Expenses		(10,000)	5		5
Sales tax if/when applicable	<u>(500)</u>		6		6
Cost of Operation	<u><u>71,050</u></u>	61,050			
Estimated units of service	1,550	1,550	7		7
External User Billing Rate	\$ 46			(Cost of Operation divided by Units of Service)	
Internal/Federal Billing Rate		\$ 39			
Indirect Cost:					
<ul style="list-style-type: none"> > Indirect cost is generated at the time the restricted fund burdens MTDC. > For External Users, call the Cost Accounting and Reporting Office to find out what rate to use. 					

Exhibit F: Operating Report – Blank

EXHIBIT F	New Mexico Tech	
Service Center Name: Responsible Department: Annual Operating Report: From: _____ To: _____		
Income:		
External Billings		
Direct Cost	plus +	\$ _____ -
Indirect Cost		minus -
GGRT		minus -
FRV	minus -	
Total External		<u><u>\$ _____ -</u></u>
Internal Billings		
NMT Internal Departments	plus +	\$ _____ -
Federal Awards		plus +
Non-Federal Awards		plus +
Project Funds	plus +	_____ -
Subsidy (if appropriate)	plus	_____ -
Total Internal		<u><u>\$ _____ -</u></u>
Total Income		<u><u>\$ _____ -</u></u>
Expenses:		
Salaries	plus +	\$ _____ -
Fringe Benefits		plus +
Materials & Supplies		plus +
Services		plus +
Travel		plus +
Other Direct _____		plus
_____	+ Other Direct	_____
_____	plus	+ _____
Subcontracts		plus +
External Rentals	plus	+ _____
Equipment (Depreciation Only)	plus +	_____
Total Expenses		<u><u>\$ _____ -</u></u>
New Operating (Surplus)Deficit		<u><u>\$ _____ -</u></u>
Service Center Fund: _____	Capital Reserve Fund: _____	
Contact Person: _____	Office/Cell Telephone: _____	
E-mail: _____	Location Address: _____	
Notes:		

EXHIBIT F1	New Mexico Tech	
Service Center Name: <u>Biology Research Lab</u>		
Responsible Department: <u>Biology Department</u>		
Annual		
Operating Report:	From: <u>July 1, 2023</u>	To: <u>June 30, 2024</u>
Income:		
External Billings		
Direct Cost	plus +	\$ <u>293.60</u>
Indirect Cost	minus -	<u>(78.60)</u>
GGRT	minus -	<u>(10.00)</u>
FRV	minus -	<u>(5.00)</u>
Total External		\$ <u>200.00</u>
Internal Billings		
NMT Internal Departm	plus +	\$ <u>800.00</u>
Federal Awards	plus +	<u>1,000.00</u>
Non-Federal Awards	plus +	<u>1,200.00</u>
Project Funds	plus +	<u>200.00</u>
Subsidy (if appropriate)		<u>-</u>
Total Internal		\$ <u>3,200.00</u>
Total Income		\$ <u>3,400.00</u>
Expenses:		
Salaries	plus +	\$ <u>1,500.00</u>
Fringe Benefits	plus +	<u>345.00</u>
Materials & Supplies	plus +	<u>800.00</u>
Services	plus +	<u>100.00</u>
Travel	plus +	<u>500.00</u>
Other Direct _____	plus +	<u>20.00</u>
Other Direct _____	plus +	<u> </u>
_____ Subcontracts		<u> </u>
	plus +	<u> </u>
External Rentals	plus +	<u> </u>
_____ Equipment (Depreciation		<u> </u>
Only)	plus +	<u>65.00</u>
Total Expenses		\$ <u>3,330.00</u>
New Operating (Surplus)Deficit		\$ <u>(70.00)</u>
Contact Person: <u>Dr. Smith</u>	Capital Reserve Fund:	_____
	Office/Cell Telephone:	<u>555-5555</u>
E-mail: Smith@nmt.edu	Location Address:	<u>Bio Bldg Rm 555</u>
Notes: The surplus is minor so there will be no change in rates for FY25. We anticipate about the same level of users and expenses.		

Exhibit G: Sample JV for Internal Users

EXHIBIT G					Page 1 of 1
Rule Code	JOURNAL VOUCHER			Document Number	
				J	
				Transaction Date	
				MO / DAY / YEAR	
DESCRIPTION (30 CHARACTERS AND SPACES)					
ORIGINATED BY _____				Entered	
REQUESTED BY _____					
INDEX	ACCT	DEBIT	CREDIT	DESCRIPTION	
DOCUMENT		TOTAL		0.00	0.00
EXPLANATION				BUSINESS OFFICE AUTHORIZATIONS	

EXHIBIT G-1					Page 1 of 1
Rule Code	JOURNAL VOUCHER			Document Number	
J					Transaction Date
Service Center charges for April 2024					05/13/24
DESCRIPTION(30 CHACTERSAND SPACES)					MO / DAY / YEAR
ORIGINATED BY <u>Admin Name</u>				Entered	
REQUESTED BY <u>Dr. Smith</u>					
INDEX	ACCT	DEBIT	CREDIT	DESCRIPTION	
103022	710001*	80.00		1 - Unassisted	
103022	710001*	80.00		1 - Unassisted	
ABCD10	710001*	220.00		1 - Assisted	
PXR90	710001*	160.00		2 - Unassisted	
A15010	710001*	160.00		2 - Unassisted	
A15010	710001*	160.00		2 - Unassisted	
270555	560106		860.00		
DOCUMENT	TOTAL	860.00	860.00	1,720.00	
EXPLANATION				BUSINESS OFFICE AUTHORIZATIONS	
April 2024 Internal User charges for					
Thermal Analysis Service Center					
*may use account code 710003 if providing lab services					

Exhibit H: Sample Invoice for External Users


		Invoice # _____			
		Date: _____			
Service Center Department: _____		Service Center Manager: _____			
Service Center Name: _____					
Customer Billing Information:		Terms of Payment: <u>Due upon receipt</u>			
Name: <u>XYZIndustry</u>		Make payable to: <u>New Mexico Tech</u> Mail to: <u>New Mexico Tech</u> <u>801 Leroy Place</u> <u>Wells Hall Suite 124 – CAR</u> <u>Socorro, NM87801</u>			
Address: <u>Accounts Payable, POBox 1234</u>					
City/State/ZIP: <u>Albuquerque, NM 87196</u>					
Phone: <u>505-555-5555</u>					
Contact: <u>John Doe</u>					
Service Date	Service Description	Quantity	Price	Amount	
7/9/2022	Sample analysis	1	\$ 320.00	\$ 320.00 ←	
Please send a copy of invoice with payment.			Total Due	320.00	
\$					
NMT Distribution Purposes:					
Credit Index-Acct	Amount	Credit Index-Acct	Amount	If Applicable	Total Distribution
<u>270555 - 560000</u>	219.30	<u>R56007-560007</u>	43.09	G RTPAY - 210004	-
<u>122XXX - 560006</u>	14.52	<u>122XXX - 560007</u>	43.09	For Tangible Items	\$ 320.00

Exhibit I: Annual Rate Validation Form

EXHIBIT I		Cost Accounting and Reporting Office	
Service Center Annual Rate Validation Form - FY _____ (Most recent Fiscal Year end) (To be prepared annually for all approved Service Centers)			
			Fund #
Service Center Name:			
Current Location/Building:			
Department:			
Financial Manager:			
E-Mail Address:			
Phone number:			
Date of Latest Rate Study	Date:	(See attached page for current rates)	
Type of Service Center			
To be completed by Service Center Manager			Amount
FY__ Revenue Collections:	Revenue Account Code:		
	Revenue Account Code:		
	Revenue Account Code:		
	Revenue Account Code:		
	Total Revenues		-
Fy__ Expenditures:	Expense Account Code:		
	Expense Account Code:		
	Expense Account Code:		
	Expense Account Code:		
	Expense Account Code:		
	Expense Account Code:		
	Expense Account Code:		
	Expense Account Code:		
	Expense Account Code:		
	Expense Account Code:		
	Total Expenditures		-
Results of Operation (Revenues - Expenditures)			-
Description of changes:			
Equipment Changes:			
Location Changes:			
Submitted by:	Name:	Date:	
To be completed by Cost Accounting and Reporting Office			
Review Procedures:	Service Center Rates are Acceptable: Yes:() No:()		
	Service Center Rates must be revised: Yes:() No:()		
	Service Center Rates to be cancelled: Yes:() No:()		
	Other Comments:		
Reviewed By:	Name:	Date:	
Approved By:	Name:	Date:	