

**DIVISION OF HEALTH PLANNING AND RESOURCE DEVELOPMENT (THURMAN)
APRIL 2004**

**CON REVIEW HG-MME-0104-001
NORTH MISSISSIPPI MEDICAL CENTER
PICTURE ARCHIVING AND COMMUNICATION SYSTEM FOR RADIOLOGY
CAPITAL EXPENDITURE: \$9,250,000
LOCATION: TUPELO, MISSISSIPPI**

STAFF ANALYSIS

I. PROJECT SUMMARY

A. Applicant Information

North Mississippi Medical Center (NMMC), is a 650-bed general acute care, short-term medical and surgical facility located in Tupelo, Mississippi. NMMC is a non-profit, Delaware corporation which is domesticated in the State of Mississippi. NMMC is a tax-exempt institution, governed by a 35-member Board of Directors and five corporate officers. The licensed beds at the facility consist of 554 general medical/surgical beds, 33 adult psychiatric beds, 20 adult chemical dependency beds, 13 adolescent chemical dependency beds, and 30 rehabilitation beds. The hospital offers a broad scope of specialty and sub-specialty services as the major regional medical center for the area.

The occupancy rates, average lengths of stay (ALOS) and the Medicaid utilization rates for fiscal years 2001, 2002, and 2003 at NMMC are as follows (medical/surgical beds only):

<i>NORTH MISSISSIPPI MEDICAL CENTER UTILIZATION DATA</i>			
<i>Fiscal Year</i>	<i>Occupancy Rate (%)</i>	<i>ALOS (Days)</i>	<i>Medicaid* Utilization Rate (%)</i>
2001	66.48	4.77	21.37
2002	63.84	4.68	13.08
2003	65.15	4.87	27.41

Source: Division of Health Facilities Licensure and Certification, MSDH, and Division of Medicaid Cost Reports.

B. Project Description

North Mississippi Medical Center requests Certificate of Need (CON) authority for the acquisition of a Picture Archiving and Communication System for Radiology (PACs) for use in its service area. The Medical Center will implement a Picture Archiving and Communication System that will improve the efficiency and quality of patient care through digital image acquisition, storage, retrieval, transportation, and display. Imaging modalities at all locations, which are not capable of producing digitized images, will be enhanced by utilizing computed radiography (CR) technology. Imaging modalities that currently produce digital images will transmit images to the central storage location for distribution and interpretation rather than being printed on film using dry laser technology.

NMMC provides radiology services at multiple locations within the Tupelo campus and at five NMMC community hospitals throughout its service area. The current method of delivery for images to radiologists and clinicians is film-based. This method of distribution inherently slows the delivery of care to the patient by delaying interpretation of films by the radiologist, thereby delaying the results and distribution to the clinician. Also, a centrally located radiology group provides services at the majority of the imaging locations. This requires frequent radiologist travel to remote locations, including radiologists with sub-specialty best suited for a particular type of exam.

Radiologist review workstations will replace the wall-mounted view boxes currently used for film interpretation. A web-enabled application will allow clinician access to images at the point of patient care. This access will be available immediately after the exam is performed and will be independent of the delivery of images to the radiologist for interpretation. Simultaneous access to the images will be available to multiple care givers at various locations. The online storage of images will be scaled to accommodate six months to one years worth of images being immediately available for access.

The PACs system will be integrated with the Hospital Information System and Radiology Information System to enable sharing of scheduling, patient registration information, orders, results, charges, and status of exams. The non-fixed equipment includes the following:

Conversion Services	\$ 191,326.00
Computed Radiography	\$ 2,782,931.00
Installation & Training	\$ 943,996.00
Servers	\$ 853,003.00
Software	\$ 1,570,352.00
Storage	\$ 1,394,401.00
Workstations	\$ 1,513,991.00
Total	\$ <u>9,250,000.00</u>

The capital expenditure for this project will be obligated within thirty (30) days of the approval of the Certificate of Need application and is expected to be completed within approximately thirty (30) months of the date of initial approval.

II. TYPE OF REVIEW REQUIRED

Projects which propose the acquisition or replacement of non-medical equipment are reviewed in accordance with Section 41-7-191, subparagraphs (1)(j) and Section 41-7-173 (c) (ii), Mississippi Code of 1972, amended, and duly adopted rules, procedures, plans, criteria, and standards of the Mississippi State Department of Health.

In accordance with Section 41-7-197(2) of the Mississippi Code of 1972 Annotated, as amended, any affected person may request a public hearing on this project within 20 days of publication of the staff analysis. The opportunity to request a hearing expires April 28, 2004.

III. CONFORMANCE WITH THE STATE PLAN AND OTHER ADOPTED CRITERIA AND STANDARDS

A. State Health Plan (SHP)

The *FY 2004 State Health Plan* does not contain criteria and standards for the acquisition of non-medical equipment. However, this application is in substantial compliance with the overall objectives of the *State Health Plan*.

B. General Review (GR) Criteria

Chapter 8 of the *Mississippi Certificate of Need Review Manual, 2000 revisions*, addresses general criteria by which all CON applications are reviewed. This application is in substantial compliance with general review criteria.

GR Criterion 2 - Long Range Plan

The applicant states that the acquisition and implementation of PACs has been in NMMC's Clinical Information Systems Plan since the mid-90's. The acquisition cost has been included in the Capital Formation Plans for the past two fiscal years.

GR Criterion 3 - Availability of Alternatives

According to the applicant, PACs is essentially the only alternative to continuing to acquire, interpret, and archive radiology images using film.

GR Criterion 4 - Economic Viability

The applicant has determined that this project is financially feasible. The three-year operating projections reflect a first-year operating expense of \$2,316,077, \$2,648,039 the second year, and \$2,657,744 the third year.

According to NMMC's financial analyst, the administration believes that there would be sufficient funds to meet NMMC's operating expenses and other financial requirements during the projection periods.

In response to additional information in reference to the financial analyst signing the Feasibility Study, the applicant submitted the following statement:

The Financial Feasibility Study (Exhibit D) was prepared by a senior staff financial analyst under the direction of the Vice President/Controller (senior fiscal officer). To comply with your stated stipulations, I have attached a new Financial Feasibility Study signed by the VP/Controller.

NMMC does not plan to alter its charges for radiology imaging procedures nor does it expect levels of utilization of radiology procedures to change as a result of the implementation of PACs.

GR Criterion 5 - Need for the Project

According to the applicant, the proposed PACs system will be used uniformly in the acquisition, interpretation, and archiving of radiology images for all residents of the service area who elect to use NMMC's radiology services. The implementation of the proposed

technology should be virtually transparent to the community. NMMC expects that any reaction from the community will be a positive one since PACs will facilitate both patient's and provider's access to radiology images acquired at the center.

GR Criterion 6 - Access to the Facility or Service

The applicant states that as a non-profit community-owned medical center, it is committed and expected to provide services to the entire service area population, including the medically under-served. The applicant states that it is the largest single provider of uncompensated care in its service area (FY2002 in excess of \$400M) and charity care (FY 2002 in excess of \$16M).

Applicant provided the following dollar amounts and percentages to medically indigent patients for 2001, 2002, and 2003:

<i>Fiscal Year</i>	<i>Gross Patient Revenue</i>	<i>Charity</i>	<i>Percent</i>
2001	\$ 622,684,943	\$ 18,827,917	3.0%
2002	\$ 660,295,899	\$ 20,828,785	3.2%
2003	\$ 747,126,226	\$ 26,799,855	3.6%

GR Criterion 7 - Information Requirement

The applicant affirms that it will record and maintain the required utilization data and make it available to the Mississippi State Department of Health as required by the Department.

GR Criterion 8 - Relationship to Existing Health Care System

NMMC expects implementation of the PACs project to have an extremely positive impact on the existing health care system. Not only will PACs improve the efficiency and effectiveness of the Radiology Departments and Radiologists utilizing the PACs, it will also improve non-NMMC providers' access to images and study interpretations through web-based access.

GR Criterion 15 - Available Resources

The applicant has available, or in the case of health personnel, will obtain adequate resources for continuation of clinical services and anticipated volume increases. The applicant prepares, maintains, and adheres to a human resources development and recruitment plan and a physician recruitment plan to ensure adequate resources. In addition, the applicant experiences consistent staffing levels with a turnover rate lower than the industry average. The applicant anticipates an increase of three (3) FTE technicians as a result of the proposed project.

GR Criterion 16 - Relationship to Ancillary or Support Services

The applicant provides a full range of ancillary and support services on NMMC's campus. These services are appropriately organized and made available to all clinical service functions.

GR Criterion 17 - Quality of Care

NMMC is in compliance with the Minimum Standards of Operation for Mississippi Hospitals, according to the Division of Health Facilities Licensure and Certification. NMMC is accredited by the Joint Commission on Accreditation of Health Care Organizations, and is licensed and certified by the Mississippi State Department of Health and certified for participation in the Medicare and Medicaid programs.

IV. FINANCIAL FEASIBILITY

A. Capital Expenditure Summary

NMMC submitted the following capital expenditure summary:

New Construction	\$	0.00
Total Non-Fixed Equipment	\$	9,250,000.00
Other Cost	\$	0.00
Total Expenditure	\$	9,250,000.00

The proposed capital expenditure is for PACs system.

The applicant submitted the following depreciation schedule:

DESCRIPTION	COST	METHOD OF DEPRECIATION	USEFUL LIFE	ANNUAL DEPRECIATION EXPENSE
Non-Fixed Equipment	\$ 9,250,000	S/L	5 Years	\$1,850,000
Total	\$ 9,250,000			\$1,850,000

B. Method of Financing

The applicant proposes to finance this project with cash reserves. No additional debt is projected.

C. Effect on Operating Cost

The applicant projects the following expenses, utilization, and results from operation for the first three years following completion of the project:

EXPENSES		YEAR 1	YEAR 2	YEAR 3
Salaries & Wages	\$	174,096.00	\$ 181,060.00	\$ 188,302.00
Benefits	\$	59,193.00	\$ 61,560.00	\$ 64,023.00
System Maintenance	\$	555,419.00	\$ 555,149.00	\$ 555,419.00
*Depreciation/Amortization	\$	1,527,369.00	\$ 1,850,000.00	\$ 1,850,000.00

TOTAL EXPENSES	\$ 2,316,077.00	\$ 2,647,769.00	\$ 2,657,744.00
NET INCOME (LOSS)	\$ -2,316,077.00	\$ -2,647,769.00	\$ -2,657,744.00

* Note: The depreciation expense discrepancy is due to phased implementation of the PACS program. The operating expense table presents financial data for the 1st year of operation @ \$1,527,369. The 2nd year, if requested, would have shown \$1,850,000 as is shown on the depreciation schedule, which reflects annual depreciation for the fully implemented PACS project.

D. Cost to Medicaid/Medicare

<u>Patient Mix by Type Payor</u>	<u>Utilization Percentage</u>	<u>First Year Expenses</u>
Medicaid	11.7%	\$ 270,981
Medicare	54.0%	\$ 1,250,682
Private Pay	7.0%	\$ 162,125
Commercial	27.3%	\$ 632,289
TOTAL	100.0%	\$ 2,316,077

V. RECOMMENDATIONS OF OTHER AFFECTED AGENCIES

The Division of Medicaid (DOM) was provided a copy of this application for review. No comments from DOM have been received.

VI. CONCLUSION AND RECOMMENDATION

This project is in substantial compliance with criteria and standards contained in the 2004 State Health Plan; the Certificate of Need Review Manual, revised 2000; and duly adopted rules, procedures, and plans of the Mississippi State Department of Health.

The Division of Health Planning and Resource Development recommends approval of the application submitted by North Mississippi Medical Center for the acquisition of a Picture Archiving and Communication System for Radiology.