

**MISSISSIPPI STATE DEPARTMENT OF HEALTH  
DIVISION OF HEALTH PLANNING AND RESOURCE DEVELOPMENT  
NOVMEBER 2008**

**CON REVIEW HG-RE-0808-030  
NORTH MISSISSIPPI MEDICAL CENTER  
REPLACEMENT AND ADDITION OF ELECTRONIC INFORMATION  
& SURGERY INFORMATION SYSTEMS  
CAPITAL EXPENDITURE: \$28,000,000  
LOCATION: TUPELO, LEE COUNTY, MISSISSIPPI**

**STAFF ANALYSIS**

**I. PROJECT SUMMARY**

**A. Applicant Information**

North Mississippi Medical Center (NMMC) is a 650-bed general acute care, short-term medical/surgical hospital. NMMC is a non-profit, tax-exempt, Delaware corporation licensed in Mississippi. It is licensed to operate 554 medical/surgical beds, 20 adult chemical dependency beds, 33 adult psychiatric beds, 13 adolescent chemical dependency beds, and 30 rehabilitation beds. NMMC offers a broad scope of specialty and sub-specialty services as the major regional medical center of the area, General Hospital Service Area 1 (GHSA 1). North Mississippi Medical Center is governed by a 13-member Board. The hospital is accredited by the Joint Commission on the Accreditation of Healthcare Organizations and the Commission on Accreditation of Rehabilitation Facilities, and licensed by the Mississippi State Department of Health (MSDH).

The occupancy rates, average lengths of stay (ALOS), and the Medicaid utilization rates for NMMC are as follows for the years 2004 through 2006:

**North Mississippi Medical Center  
Utilization Data**

<b>Fiscal Year</b>	<b>Occupancy Rate (%)</b>	<b>ALOS (Days)</b>	<b>Medicaid Utilization Rate (%)</b>
2004	64.72	4.70	27.50
2005	62.66	4.91	29.77
2006	60.65	4.23	29.52

**Source:** Division of Health Facilities Licensure and Certification,  
MSDH

**B. Project Description**

North Mississippi Medical Center requests Certificate of Need (CON) authority for replacement and addition of **electronic information** and **surgery information systems** at NMMC. The applicant asserts that the proposed project will encompass the replacement of NMMC's twenty-five (25) year old electronic clinical record systems and its twenty (20) year old surgery information system. According to North Mississippi Medical Center, the electronic clinical system that will replace the current twenty-five (25) year old system contains a number of new software technologies, all designed to improved patient safety and outcomes, as well as providing evidence based ordering and charting pathways. The system is designed to facilitate computerized physician order entry. The system immediately alerts the physician to drug interactions as well as the patient's allergy to a drug being ordered, which again promotes patient safety. The new system will utilize the most current evidence-based nationally accepted practice protocols, which will ensure better outcomes for NMMC's patients.

North Mississippi Medical Center asserts that the surgery system that will replace the current twenty (20) year old system is a new technology system that combines and addresses the needs of both anesthesia and surgery within one set of software programs. The system provides for automated preference cards by surgeon for each type of surgery the surgeon does, which ensures that the surgeon always has exactly what is needed at the time of surgery. The system provides for complete electronic documentation which ensures that care givers throughout the rest of the patient's stay in the hospital will have access to the crucial information from surgery.

The applicant believes that the proposed project will improve the quality and safety of patient care with newer technology at NMMC.

The total proposed capital expenditure is \$28,000,000, which is 100 percent for the replacement of non-fixed equipment. The applicant indicates the proposed capital expenditure will be funded from the hospital's accumulated cash reserves.

This project is for replacement and addition of **electronic information** and **surgery information systems** (non-fixed equipment) at NMMC, therefore, site approval is not required.

The applicant's anticipated date for obligation of the capital expenditure and completion of the project will be 30 days after CON approval.

**II. TYPE OF REVIEW REQUIRED**

This project is reviewed in accordance with Section 41-7-191, subparagraphs (1) (j) of the Mississippi Code of 1972, Annotated, as 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 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 on December 4, 2008.

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

A. **State Health Plan (SHP)**

The *FY 2009 State Health Plan* does not contain criteria and standards for replacement of electronic information and surgery information systems. However, the application is in substantial compliance with the overall objectives of the *Plan*.

B. **General Review (GR) Criteria**

Chapter 8 of the *Mississippi Certificate of Need Review Manual, Revised February 23, 2008*; addresses general criteria by which all CON applications are reviewed. This application is in substantial compliance with general review criteria.

**GR Criterion 3 – Availability of Alternatives**

North Mississippi Medical Center states that it has gone far beyond the normal life of computer software with the two systems planned for replacement. It is unheard of in the industry for systems to last 20 years and 25 years. The hospital is at the end of life for both of the systems and the vendors have either issued a notice that they will no longer provide software maintenance and support for the hospital's systems, or they plan on issuing a sunset order within a short period of time, meaning that within a year or so software maintenance and support will not be available. According to the applicant, the only alternative to maintaining the safety, quality and cost control of electronic health systems is to upgrade to new systems which are provided vendor software maintenance and support.

The applicant believes that by being able to convert this huge data repository, the newer technology system can provide even greater benefits in the area of quality, safety, and cost control. NMMC states that no less costly alternatives providing the same benefits are identified.

**GR Criterion 4 - Economic Viability**

Financial projections indicate losses of \$1,915,000 for the first year, \$2,300,000 for the second year, and \$2,635,000 for the third year after completion of the project. However, as all costs associated with this project represent depreciation costs, the project will not result in an overall loss for the facility. The applicant projects net income of \$23,247,184 the first year, \$26,458,612 the second year, and \$28,354,892 the third year for the overall operation of the facility.

North Mississippi Medical Center asserts that the replacement and addition of the electronic information systems and surgery information system at NMMC will not generate inpatient or outpatient revenue for the hospital.

The application contained a letter from the hospital's financial analyst attesting to the financial feasibility of the project.

#### **GR Criterion 5 - Need for the Project**

According to the applicant, the proposed replacement of the **electronic information and surgery information systems** is critical to the continued success of NMMC to provide adequate information services for its patient treatment.

North Mississippi Medical Center asserts that the project will encompass the replacement of NMMC's 25 year old electronic clinical record system and its 20 year old surgery information system. As previously mentioned, the hospital is at the end of life for both of these systems, and the vendors have either issued a notice that they will no longer provide software maintenance and support for these systems or they plan on issuing a sunset order within a short period of time, meaning that within a year or so software maintenance and support will not be available.

The applicant states that the **electronic information system** is needed to improve patient safety and outcomes, as well as providing evidence-based ordering and charting pathways. In addition, a need exists to improve the legibility of drug orders to the pharmacy to ensure that drugs dispensed by pharmacy will be the actual drug and the proper dose that was ordered by the physicians.

The applicant states that the **surgery information system** is needed to address the needs of both anesthesia and surgery within one set of software programs. This ensures a more efficient process and a shorter time in surgery for a patient. The system also provides for complete electronic documentation, which ensures that care givers throughout the rest of the patient's stay in the hospital will have access to the crucial information from surgery.

The applicant believes that failure to implement this project will have a catastrophic impact on the ability of physicians and other care givers to treat patients. Without an electronic system, these physicians will have to resort to a manual paper-based method of communicating orders and getting results. They would not have access to drug interaction and allergy alert databases. North Mississippi Medical Center asserts that failure to implement the proposed project will affect costs negatively, in that the hospital will see a dramatic increase in duplicative tests and procedures because no electronic repository will exist for physicians to access recent test and procedure results.

The application contains two letters of support from the staff of NMMC and a copy of an excerpt from the minutes of the Board of Directors of North Mississippi Health Services for the proposed project.

No adverse comments were received from the community.

#### **GR Criterion 6 - Access to the Facility or Service**

**Medically Underserved Population:** North Mississippi Medical Center asserts that all residents of the health planning service area, hospital service area or patient service area, including Medicaid recipients, charity/medically indigent patients, racial and ethnic minorities, women, handicapped persons, and the elderly have access to the services of the existing facility.

**Unmet Needs to be Served by Applicant:** The applicant submits that the percentage of gross patient revenue (GPR) and actual dollar amount of health care provided to medically indigent patients for the last three years are as follows for this project:

	GPR %	GPR Dollar Amount
Historical Year 2006	5.0	\$46,610,790
Historical Year 2007	5.52	\$54,982,855
Projected Year 1	4.78	\$64,794,151
Projected Year 2	4.90	\$ 71,873,256

**GR Criterion 7 - Information Requirement**

The applicant asserts that it will record and maintain the information required by this criterion and make it available to the Mississippi State Department of Health within 15 business days of request.

**GR Criterion 8 - Relationship to Existing Health Care System**

North Mississippi Medical Center is located in General Hospital Service Area 1 (GHSA 1), which contained 2,497 licensed acute care beds in 2007. This application does not propose new services in General Hospital Service Area 1. The project proposes the replacement and addition of the electronic information and surgery information systems at NMMC. No new services are being proposed by the applicant. Therefore, no significant effect is anticipated on existing facilities in the area.

Because no new services will be offered as a result of this project, staff concludes that this project would have no adverse affect on other providers in the referenced service area.

The Department received no letters of opposition concerning the proposed project.

**GR Criterion 9 - Availability of Resources**

According to the applicant, no additional full-time equivalent personnel are required for the proposed project.

**GR Criterion 16 - Quality of Care**

North Mississippi Medical Center is in compliance with the *Minimum Standards for the Operation of Mississippi Hospitals*, according to the Division of Health Facilities Licensure and Certification, MSDH. The facility is accredited by the Joint Commission on Accreditation of Health Care Organizations.

**IV. FINANCIAL FEASIBILITY**

**A. Capital Expenditure Summary**

The total estimated capital expenditure is allocated as follows:

	Item	Cost	Percent of Total
a.	Construction Cost – New	0	0
b.	Construction Cost – Renovation	0	0
c.	Capital Improvements	0	0
d.	Total Fixed Equipment Cost	0	0
e.	Total Non-Fixed Equipment Cost	28,000,000	100
f.	Land Cost	0	0
g.	Site Preparation Cost	0	0
h.	Fees (Architectural, Consultant, etc.)	0	0
i.	Contingency Reserve	0	0
j.	Capitalized Interest	0	0
k.	Other	0	0
	<b>Total Proposed Capital Expenditure</b>	<b>\$28,000,000</b>	<b>100.00</b>

The above capital expenditure is proposed for the replacement and addition of an electronic information and surgery information systems at NMMC.

**B. Method of Financing**

The applicant proposes to finance the proposed capital expenditure from accumulated cash reserves. The application contains NMMC's financial statements for the past three years, which document the applicant's ability to undertake the proposed project.

As previously mentioned, the application contained a letter from the hospital's financial analyst attesting to the financial feasibility of the project.

**C. Effect on Operating Cost**

North Mississippi Medical Center's three-year projected operating statement for this project is presented at Attachment 1. Although the three-year projected operating statement indicates losses in all three years for the project, the facility's overall operating statement indicates sufficient funds to offset the losses.

**D. Cost to Medicaid/Medicare**

North Mississippi Medical Center asserts that the replacement and addition of an electronic information and surgery information systems will not generate inpatient and outpatient revenue. Therefore, costs to Medicaid, Medicare, and third party payors will be negligible.

**V. RECOMMENDATIONS OF OTHER AFFECTED AGENCIES**

The Division of Medicaid states that effective October 1, 2005, it changed the methodology by which the Division reimburses inpatient hospital services so that cost incurred subsequent to that date no longer affects per diem rates, and that any portion of the cost which may relate to outpatient service will be paid as outlined in the *Medicaid State Plan*. The Division takes no position on the proposed project.

**VI. CONCLUSION AND RECOMMENDATION**

This project is in substantial compliance with the overall objectives of the *FY 2009 State Health Plan*; the *Mississippi Certificate of Need Review Manual, Revised February 23, 2008*; 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 replacement and addition of an electronic information and surgery information systems.

**Attachment 1**

North Mississippi Medical Center Three-Year Operating Statement (Project Only)			
	Year 1	Year 2	Year 3
<b>Revenue</b>			
Patient Revenue:			
Inpatient	0	0	0
Outpatient	0	0	0
<b>Gross Patient Revenue</b>	<b>0</b>	<b>0</b>	<b>0</b>
Charity Care	0	0	0
Deductions from Revenue		0	0
<b>Net Patient Revenue</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Expenses</b>			
Operating Expenses:			
Salaries	0	0	0
Benefits	0	0	0
Supplies	0	0	0
Services	0	0	0
Lease	0	0	0
Depreciation	1,915,000	2,300,000	2,635,000
Interest	0	0	0
Other	0	0	0
<b>Total Expenses</b>	<b>\$ 1,915,000</b>	<b>\$ 2,300,000</b>	<b>\$ 2,635,000</b>
<b>Net Income (Loss)</b>	<b>\$(1,915,000)</b>	<b>\$(2,300,000)</b>	<b>\$(2,635,000)</b>
<b>Assumptions</b>			
Inpatient days	0	0	0
Outpatient days	0	0	0
Procedures	0	0	0
Charge per outpatient day	0	0	0
Charge per inpatient day	0	0	0
Charge per procedure	0	0	0
Cost per inpatient day	0	0	0
Cost per outpatient day	0	0	0
Cost per procedure	0	0	0

North Mississippi Medical asserts that the replacement and addition of electronic information surgery information systems will not generate charity care, bad debt, inpatient and outpatient revenue for the propose project.