

**MISSISSIPPI STATE DEPARTMENT OF HEALTH  
DIVISION OF HEALTH PLANNING AND RESOURCE DEVELOPMENT  
SEPTEMBER 23, 2016**

**CON REVIEW: HG-NIS-0716-014  
NOXUBEE CRITICAL ACCESS HOSPITAL  
D/B/A NOXUBEE MEDICAL COMPLEX  
(OFFER) ESTABLISH MOBILE MRI SERVICE  
CAPITAL EXPENDITURE: \$-0-  
LOCATION: MACON, NOXUBEE COUNTY, MISSISSIPPI**

**STAFF ANALYSIS**

**I. PROJECT SUMMARY**

**A. Applicant Information**

Noxubee General Critical Access Hospital is a 25-bed public owned provider. This public owned provider has a ten (10) member Board of Trustees. Noxubee General Critical Access Hospital is based at P.O Box 480, Macon, located in Noxubee County, Mississippi 39341.

The occupancy rates, average lengths of stay (ALOS), and Medicaid utilization rates for the three most recent years for Noxubee are shown below:

**Noxubee General Critical Access Hospital  
Utilization Data**

<b>Fiscal Year</b>	<b>Occupancy Rate %</b>	<b>ALOS (Days)</b>	<b>Medicaid Utilization Rate (%)</b>
2012	33.01	3.61	91.42
2013*	N/A	N/A	N/A
2014	23.59	3.26	89.64

\*N/A- Not available.

**Source:** Division of Health Facilities Licensure and Certification, Mississippi State Department of Health, (MSDH)

**B. Project Description**

Noxubee General Critical Access Hospital requests (NGCAH) d/b/a Noxubee Medical Complex requests Certificate of Need (CON) authority to offer mobile magnetic resonance imaging (MRI) services one/half day up to one full day per week. The applicant proposes to provide mobile MRI services utilizing an Intera 1.5 mobile MRI unit through a contractual agreement with Superior MRI Services,

Inc. a Mississippi Corporation of Batesville, Mississippi (MS). The application contains a copy of the service agreement between Noxubee General Critical Access Hospital and Superior MRI Services, Inc.

The proposed project will not require a capital expenditure nor will it need additional staffing for the Noxubee Critical Access Hospital. Noxubee Critical Access Hospital included audited financial records in the CON application. The applicant received a site approval from the Mississippi State Department of Health on July 22, 2016. The applicant states that NCAH will obligate the capital expenditure by September 1, 2016 of CON approval and the proposed project will be completed on December 31, 2016 of final CON approval by the Department.

## II. TYPE OF REVIEW REQUIRED

The Mississippi State Department of Health reviews applications for the establishment of MRI services in accordance with Section 41-7-191, subparagraph (1)(d)(xii) 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 person may request a public hearing on this project within 10 days of publication of the staff analysis. The opportunity to request a hearing expires on October 3, 2016.

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

### A. State Health Plan (SHP)

The *FY 2015 State Health Plan* contains policy statements, criteria and standards which an applicant is required to meet before receiving Certificate of Need (CON) authority for the acquisition or otherwise control of magnetic resonance imaging (MRI) equipment and offering of MRI services. This application is in substantial compliance with applicable criteria and standards.

### *Certificate of Need Criteria and Standards for the Offering of Fixed or Mobile MRI Services*

#### **SHP Criterion 1- Need**

The *FY 2015 Mississippi State Health Plan* states that an entity desiring to acquire or otherwise control the MRI equipment shall demonstrate a minimum of 2,700 procedures per year by the end of the second year of operation; provided, however, that MRI equipment exclusively servicing rural hospitals (those located outside U.S. Census Bureau Metropolitan Statistical Areas with 75 or less beds)

shall be required to demonstrate a minimum of 1,700 procedures per year by the end of the second year of operation. This criterion includes both fixed and mobile MRI equipment. The applicant must show the methodology used for the projections.

The applicant states the proposed mobile MRI route will be serviced by Superior MRI Services, Inc. utilizing an Intera 1.5 mobile MRI unit. Noxubee Critical Access Hospital provided data in the CON application asserting that Superior MRI Services, Inc. performed 1,844 mobile MRI scans per year. Noxubee General Critical Access Hospital asserts adding an additional 300 MRI scans per year to Superior MRI Services, Inc.'s route will bring the total to 2,144.

Based on Exhibit 5 within the CON application, Superior MRI Services, Inc. mobile performed a total of 4,200 MRI scans for CY 2015 utilizing one mobile MRI unit.

On March 21, 2016 Superior MRI Services, Inc. was approved by the Department to acquire a second mobile MRI unit through a Determination of Reviewability application. Although Noxubee Critical Access Hospital will be considered a hospital-based MRI service additional information received by the Department includes seven signed letters by physicians and certified nurse practitioners attesting that he or she will refer a total of 24 to 192 scans (patients) per year to Noxubee Critical Access Hospital, if the proposed project is granted a CON. The total number of scans (patients) that the medical professional will refer to the hospital-based mobile MRI service is estimated to be a total of 504.

The applicant further indicates that the proposed mobile MRI unit at the proposed location is expected to perform the following MRI procedures for the first year through the third years of operation, respectively.

Year 1	Year 2	Year 3
240	300	360

As reported in the *MSHP*, the MRI use rate is based on a total of 258,189 scans for FY 2013 compared to the State's population of 3,156,054. The proposed mobile, MRI unit NCAH is requesting approval for is located in Noxubee County, which is in GHSA 4. The 2020 population projections for Noxubee County and GHSA 4 are 10,698 and 341,996, respectively. Also, based on the current *Mississippi State Health Plan*, the Mississippi MRI use rate is 82.12. This rate is determined by taking the total number of scans performed (258,189) for the state and dividing it by the state's projected population (3,156,054) multiplied by 1,000, which equates to 81.80754 or 82.

The *FY 2015 Mississippi State Health Plan* reports that a total of 27,201 MRI procedures were performed in 2013 for GHSA 4. According to the MSDH's MRI use rate, staff determined that Noxubee County would be expected to generate

approximately 877 MRI scans and GHSA 4 is expected to produce 28,044 procedures (see formula listed below).

**Population-Based Formula for Projection of MRI Service Volume**

**$X*Y \div 1,000=V$**

**Where, X = Applicant's Defined Service area population**

**Y = Mississippi MRI Use Rate**

**V = Expected Volume**

Projected MRI procedures for Noxubee County, the location for the proposed mobile, MRI unit and GHSA 4 are shown below:

**10,698 (Noxubee County's population projections)** = **10.698**  
**1,000**

**10.698\*82 (MS MRI Use Rate) 877.24**

**341,996 (GHSA 4 population projections)** = **341.996 or 342**  
**1,000**

**341.996\* 82 (MS MRI Use Rate) = 28,043.672**

The applicant shall demonstrate that all existing units within its defined service area have performed an average of 1,700 procedures for the most recent 12-month period.

Based on the *FY 2015 Mississippi State Health Plan*, staff determined that there were 13.34 FTE units operating in GHSA 4 during FY 2013, which performed an average of 2,039.05 procedures per FTE unit (see Attachment 2). The average MRI procedures for FY 2013 and NCAH's projected number of procedures are 1,962.49 per 13.49 FTE units (see Attachment 3). Thus, the average number of MRI procedures for FY 2013 and the projected MRI numbers in Attachment 3 exceed the requirement of 1,700 minimum procedures.

The applicant states that there are currently no MRI services available in Noxubee County.

Based on NCAH's projected first and second years of operation and the entire GHSA 4, NCAH would meet the required number of MRI scans per MRI unit (see Attachment 3).

The applicant affirms that based on the projected population and projected number of MRI scans for GHSA 4, the numbers support the proposed mobile MRI unit/service in Macon, Noxubee County, MS.

The applicant submits that NCAH is requesting approval for a mobile MRI unit in Noxubee County.

### **SHP Criterion 2 – Documentation of Diagnostic Imaging Modalities**

The applicant states it currently provides hospital based conventional radiology, CT, and Ultrasound imaging services.

### **SHP Criterion 3 – Accessibility**

The applicant certifies that it does not exclude patients because of race, color, age, sex ethnicity or ability to pay.

### **SHP Criterion 4 – Staffing**

The applicant asserts that it will have a qualified physician available at all times to ensure compliance with all healthcare standards and laws. Also, Noxubee General Critical Access Hospital has a contract with Radiologist, David Dunigan, as Medical Director for MRI service. Superior MRI Services, Inc. asserts it will provide experienced technicians in MRI imaging.

### **SHP Criterion 5 – Research Staffing**

Noxubee asserts that the mobile MRI unit will not be used for experimental procedures.

### **SHP Criterion 6 – Data Requirement**

Noxubee states that it certifies it will record and maintain MRI volume data and will make the information available to the Mississippi State Department of Health.

### **SHP Criterion 7 – CON Approval**

Superior MRI Services, Inc. states that it is an approved mobile MRI service provider in Mississippi.

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

Chapter 8 of the *Mississippi Certificate of Need Review Manual, 2011 revision*, addresses general criteria by which all CON applications are reviewed. This application is in substantial compliance with general review criteria.

### **GR Criterion 1 –State Health Plan**

The application was reviewed for compliance with the *FY 2015 State Health Plan* as discussed above.

## **GR Criterion 2 - Long Range Plan**

The applicant states that Noxubee Critical Access Hospital currently offers a wide range of imaging modalities. The applicant states that the additional mobile MRI unit will better serve the imaging needs of patients, referring physicians and the patient's doctors in one location. The proposed project will seek to promote a long range plan to provide affordable, quality treatment and imaging services for its patients.

## **GR Criterion 3- Availability of Alternatives**

The applicant states that Noxubee Critical Access Hospital considered the alternative of purchasing a mobile MRI unit to park on site for availability, but determined that the potential volume was too low to offset the cost. Noxubee asserts that utilizing a mobile MRI service for up to one day per week provides the most efficient use of cost to volume and provides convenient access to MRI services for the residents of Noxubee County. Also, the additional MRI services will better serve the needs of patients and physicians, because patients and their physicians will be able to have most of their imaging needs met in one convenient location. Furthermore, MRI services have become a common diagnostic tool for patient care and a necessary service for community healthcare providers.

## **GR Criterion 4 - Economic Viability**

According to the applicant, Noxubee Critical Access Hospital projects an average charge of \$2,000 per MRI scan for the first, second, and third year of services. Also, Noxubee Critical Access Hospital projects it will perform 240, 300 and 360 MRI scan(s) for years one through three, respectively. The applicant asserts that these projections are consistent with the survey of MRI referrals currently being sent out by the staff physicians.

Noxubee Critical Access Hospital states that actual expenses are directly variable to actual volume and revenues. The applicant states that since the projected volume of MRIs are currently being performed at referral centers outside the community; there is no anticipated impact on the overall cost of healthcare. Also, due to the limited scope of the new service volume, revenues, and expenses have minimal impact on overall revenues and expense per patient day or per procedure.

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

According to Noxubee Critical Access Hospital the proposed MRI service will promote healthcare quality as patients are able to access most of the imaging needs in one convenient location. Noxubee Critical Access states that it is a public owned provider and is committed to serving the needs of all the county

residents, including the underserved. The applicant states that often these populations cannot access services outside the county.

The applicant states that since the projected volume of MRIs are currently being performed at referral centers outside the service area, the projected utilization and justification is already determined. Noxubee Critical Access Hospital asserts that it believes that the proposed project will address the needs of the residents of Noxubee County by providing greater access to MRI services currently unavailable in the county. Furthermore, this proposal will not be an unnecessary duplication of services.

The application contains approximately two (2) letters supporting this proposed project.

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

The applicant states that the proposed project will provide patients and their physicians with a local choice for MRI services. Also, all residents of Noxubee County will have access to the proposed services. The applicant states that it will operate regularly four to eight hours per week and emergency only operation will not be provided.

#### **GR Criterion 7- Information Requirement**

Noxubee Critical Access Hospital affirms that it will record and maintain, at a minimum, the information stated in this criterion regarding charity care, care to the medically indigent, and Medicaid populations and make it available to the Mississippi State Department of Health within 15 days of request.

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

Noxubee Critical Access Hospital is located in General Hospital Service Area (GHSA) 4, Noxubee County, Mississippi. The applicant asserts that there is not another existing comparable mobile MRI services in Noxubee service area.

The applicant asserts that Noxubee County will continue to travel out of the service area for essential healthcare needs that are commonly available at hospitals and not view the local hospital as a quality provider of standard of care.

Staff concludes that this project should have no significant adverse affect on existing MRI providers in GHSA 4.

The Department has not received any letters of opposition for the proposed project.

### **GR Criterion 9 - Availability of Resources**

The applicant states that the MRI services will be provided by the mobile MRI services provider. Noxubee states that it purchased service fees from Superior MRI Services Inc. for the period of three years, effective upon contract execution.

### **GR Criterion 10 – Relationship to Ancillary or Support Services**

According to the applicant, Noxubee Critical Access Hospital will contract mobile MRI services and supported through the existing Radiology Department. Also, direct variable change in costs and charges related to the utilization of MRI scans will be provided, and additional costs are directly offset by additional charges.

### **GR Criterion 11- Health Professional Training Programs**

According to the applicant, Noxubee Critical Access Hospital asserts there will not be any effect of the proposed service and/or facility on the clinical needs of health professional training programs.

### **GR Criterion 16 - Quality of Care**

Noxubee Critical Access Hospital is in compliance with the *Minimum Standards for the Operation of Mississippi Hospitals*, according to the Division of Health Facilities Licensure and Certification, MSDH.

Noxubee Critical Access Hospital is certified to participate in the Medicare and Medicaid programs.

Noxubee Critical Access Hospital is a licensed Mississippi hospital in good standing.

## **IV. FINANCIAL FEASIBILITY**

### **A. Capital Expenditure Summary**

According to the applicant, no capital expenditure is associated with this project.

### **B. Method of Financing**

The proposed project requires no financing.

### **C. Effect on Operating Costs**

Noxubee Critical Access Hospital's three-year projected operating statement is provided in Attachment 1 for the proposed project.



**D. Cost to Medicaid/Medicare**

The applicant's projections to third party payors are as follows (based on gross patient revenue):

Payor	Utilization Percentage	First Year Revenue
Medicaid	6%	\$1,427,400
Medicare	47%	11,887,800
Commercial	18%	4,570,350
Self-Pay	4%	1,005,740
Charity Care	1%	144,430
Other	25%	6,489,250
<b>Total</b>	<b><u>101%*</u></b>	<b><u>25,524,970</u></b>

Based on the staff's calculations, third party payors are as follows (based on gross patient revenue):

Payor	Utilization Percentage	First Year Revenue
Medicaid	6.00%	\$1,531,498.20
Medicare	47.00%	\$11,996,735.90
Self Pay	4.00%	\$1,020,998.80
Commercial	18.00%	\$4,594,494.60
Charity	1.00%	\$255,249.70
Other	25.00%	\$6,381,242.50
<b>Total</b>	<b><u>101%*</u></b>	<b><u>\$25,780,219.70</u></b>

\*Utilization percentage is over by 1% due to rounding in both tables.

**V. RECOMMENDATION OF OTHER AFFECTED AGENCIES**

The Division of Medicaid indicates that outpatient services are paid based on a facility's cost to charge ratio, as outlined in the Medicaid State Health. Any services resulting from this project will be reimbursed using that methodology. Consequently, any additional cost to the Division of Medicaid cannot be determined at this time. The Division of Medicaid opposes this project.

## VI. CONCLUSION AND RECOMMENDATION

This project is in substantial compliance with the criteria and standards for the acquisition or otherwise control of magnetic resonance imaging (MRI) equipment and offering of mobile MRI services as contained in the FY 2015 *Mississippi State Health Plan*, Chapter 8 of the *Mississippi Certificate of Need Review Manual, 2011 revision*; and all adopted rules, procedures, and plans of the Mississippi State Department of Health.

<b>ATTACHMENT 1</b>			
<b>Noxubee Critical Access Hospital (With Project)</b>			
<b>Three-Year Operating Statement</b>			
	Year 1	Year 2	Year 3
<b>Revenue</b>			
Inpatient Care Revenue	\$12,349,775	\$12,473,273	\$12,598,005
Outpatient Care Revenue	\$13,175,195	\$13,422,147	\$13,670,368
Gross Patient Care Revenue	\$25,524,970	\$25,895,420	\$26,268,374
Charity	\$144,430	\$145,874	\$147,333
Deductions from Revenue	6,302,240	6,442,792	6,583,942
<b>Net Patient Care Revenue</b>	<b>\$19,078,300</b>	<b>\$19,306,753</b>	<b>\$19,537,099</b>
Other Operating Revenue	\$1,629,130	\$1,645,421	\$1,661,876
<b>Total Operating Revenue</b>	<b>\$20,707,430</b>	<b>\$20,952,175</b>	<b>\$21,198,974</b>
<b>Net Operating Income (Loss)</b>	<b>\$1,371,100</b>	<b>\$1,301,752</b>	<b>\$1,228,995</b>
<b>Operating Expenses</b>			
Salaries	\$9,931,740	\$10,130,375	\$10,332,982
Benefits	\$2,142,000	\$2,184,840	\$2,228,537
Supplies	\$1,620,800	\$1,638,160	\$1,655,682
Services	\$72,000	\$ 90,000	\$108,000
Lease	\$0	\$0	\$0
Depreciation	\$703,000	\$703,000	\$703,000
Interest	\$135,000	\$125,000	\$115,000
Other	\$4,731,790	\$4,779,048	\$4,826,778
<b>Total Operating Expense</b>	<b>\$19,336,330</b>	<b>\$19,650,423</b>	<b>\$19,969,995</b>
<b>Assumptions</b>			
Inpatient days	27,477	27,752	28,029
Outpatient visits	55,723	56,280	56,843
Procedures	92,339	93,280	94,310
Charge per outpatient day	\$236	\$238	\$240
Charge per inpatient day	\$449	\$449	\$449
Cost per procedure	\$276	\$277	\$279
Cost per inpatient day	\$704	\$708	\$712
Cost per outpatient day	\$347	\$349	\$351
Cost per procedure	\$209	\$211	\$212

**ATTACHMENT 2**  
**General Hospital Service Area 4**  
**Location and Number of MRI Procedures**  
**FY 2015 State Health Plan**

Facility	Type of Providers	City	County	Type/No. of Equipment	Number of MRI Procedures Performed 2012	Number of MRI Procedures Performed 2013	Days/Hours of Operation 2013	FTE Units
Baptist Memorial Hospital - Golden Triangle	H	Columbus	Lowndes	F(2)	4,535	4,910	M-F, 110 Hrs.	2
Baptist Memorial Hospital - North MS	H	Oxford	Lafayette	F	2,158	2,624	Sun.-Sat., 140+ Hrs.	1
Calhoun Health Services	H	Calhoun City	Calhoun	M	286	293	M. & Thr., 10 Hrs.	0.25
Gilmore Memorial Hospital, Inc.	H	Amory	Monroe	F	1,211	1,114	M-F, 40 Hrs.	1
Imaging Center of Columbus	FS	Columbus	Lowndes	F(2)	5,331	6,051	M-F, 80+ Hrs.	2
Imaging Ctr. of Excellence Institute - MSU	FS	Starkville	Oktibbeha	F	1,544	1,452	M-F, 40 Hrs.	1
North Miss. Medical Center - Eupora	H	Eupora	Webster	M	907	795	M-F, 40 Hrs.	1
North Miss. Medical Center - West Point	H	West Point	Clay	M	843	684	M-F, 40 Hrs.	1
Oktibbeha County Hospital	H	Starkville	Oktibbeha	F	2,451	2,446	M-F, 40 Hrs.	1
Pioneer Community Hospital	H	Aberdeen	Monroe	M	431	451	M,T & W, F, 20 Hrs.	0.5
Oxford Diagnostic Center	FS	Oxford	Lafayette	F	2,981	3,257	M-F, 78 Hrs.	1
Trace Regional Hospital	H	Houston	Chickasaw	M	463	464	Tu.-F, 16 Hrs.	0.9
Tyler Holmes Memorial Hospital	H	Winona	Montgomery	M	322	272	W, 4 Hrs.	0.1
University of MS Medical Center - Grenada*	H	Grenada	Grenada	F	2,505	2,219	M-F, 40 Hrs.	1
Yalobusha Hospital	H	Water Valley	Yalobusha	M	266	169	M, 3.5 Hrs.	0.09
<b>Total MRI Procedures</b>					<b>26,234</b>	<b>27,201</b>		<b>13.34</b>
<b>Average Procedures FTE/MRI</b>					<b>1,966.57</b>	<b>2,039.05</b>		

Source: FY 2015 MS State Health Plan

F – Fixed MRI Unit

M - Mobile MRI unit

FTE – Full-Time Equivalent

Type of providers: H-Hospitals, FS-Freestanding and MP-Mobile Providers

\*Grenada Lake Medical Center changed name to University of MS Medical Center – Grenada

**ATTACHMENT 3**  
**General Hospital Service Area 4**  
**Location and Number of MRI Procedures**  
**FY 2015 State Health Plan**

Facility	Type of Providers	City	County	Type/ No. of Equip.	Number of MRI Procedures Performed 2012	Number of MRI Procedures Performed 2013	Days/Hours of Operation 2013	Year 1 Proposed MRI Scans	Year 2 Proposed MRI Scans	Proposed FTE Units For Year 1 & Year 2
Baptist Memorial Hospital - North MS	H	Oxford	Lafayette	F	2,158	2,624	Sun.-Sat., 140+ Hrs.	2,624	2,624	2
Calhoun Health Services	H	Calhoun City	Calhoun	M	286	293	M. & Thr., 10 Hrs.	293	293	0.25
Gilmore Memorial Hospital, Inc.	H	Amory	Monroe	F	1,211	1,114	M-F, 40 Hrs.	1,114	1,114	1
Imaging Center of Columbus	FS	Columbus	Lowndes	F(2)	5,331	6,051	M-F, 80+ Hrs.	6,051	6,051	2
Imaging Ctr. of Excellence Institute - MSU	FS	Starkville	Oktibbeha	F	1,544	1,452	M-F, 40 Hrs.	1,452	1,452	1
North Miss. Medical Center - Eupora	H	Eupora	Webster	M	907	795	M-F, 40 Hrs.	795	795	1
North Miss. Medical Center - West Point	H	West Point	Clay	M	843	684	M-F, 40 Hrs.	684	684	1
<b>Applicant</b> Noxubee Critical Access Hospital	<i>H</i>	<i>Macon</i>	<i>Noxubee</i>	<i>M</i>				240	300	0.15
Oktibbeha County Hospital	H	Starkville	Oktibbeha	F	2,451	2,446	M-F, 40 Hrs.	2,446	2,446	1
Pioneer Community Hospital	H	Aberdeen	Monroe	M	431	451	M,T & W, F, 20 Hrs.	451	451	1
Oxford Diagnostic Center	FS	Oxford	Lafayette	F	2,981	3,257	M-F, 78 Hrs.	3,257	3,257	1
Trace Regional Hospital	H	Houston	Chickasaw	M	463	464	Tu.-F, 16 Hrs.	464	464	0.40
Tyler Holmes Memorial Hospital	H	Winona	Montgomery	M	322	272	W, 4 Hrs.	272	272	0.1
University of MS Medical Center - Grenada*	H	Grenada	Grenada	F	2,505	2,219	M-F, 40 Hrs.	2,219	2,219	1
Yalobusha Hospital	H	Water Valley	Yalobusha	M	266	169	M, 3.5 Hrs.	169	169	0.09
<b>Total MRI Procedures</b>					<b>26,234</b>	<b>27,201</b>		<b>26,474</b>	<b>27,501</b>	<b>13.49</b>
<b>Average Procedures FTE/ MRI</b>								<b>1,962.48</b>	<b>2,038.62</b>	

Source: FY 2015 MS State Health Plan

F – Fixed MRI Unit

M - Mobile MRI unit

FTE – Full-Time Equivalent

Type of providers: H-Hospitals, FS-Freestanding and MP-Mobile Providers

\*Grenada Lake Medical Center changed name to University of MS Medical Center – Grenada