

**DIVISION OF HEALTH PLANNING
AND RESOURCE DEVELOPMENT
JUNE 4, 2018**

**CON REVIEW HG-MME-0418-004
FORREST COUNTY GENERAL HOSPITAL
D/B/A FORREST GENERAL HOSPITAL
ADDITION OF LINEAR ACCELERATOR
LOCATION: HATTIESBURG, FORREST COUNTY, MISSISSIPPI
CAPITAL EXPENDITURE: \$5,654,262**

STAFF ANALYSIS

I. PROJECT SUMMARY

A. Applicant Information

Forrest County General Hospital, d/b/a Forrest General Hospital (“Forrest General”) is a 512 bed public, acute care hospital owned by Forrest County and governed by a 7-member Board of Trustees. The hospital’s bed complement consists of 400 short-term acute care beds: 24 rehabilitation beds; 64 adult psychiatric beds; 16 adolescent psychiatric beds; and 8 adult chemical dependency beds. Forrest General is licensed by the Mississippi Department of Health.

The occupancy rates, average lengths of stay (ALOS), and Medicaid Utilization for the three most recent years available are as follows for the acute care beds (ONLY):

| Fiscal Year | Occupancy Rate (%) | ALOS (DAYS) | Medicaid Utilization Rate% |
|-------------|--------------------|-------------|----------------------------|
| 2013 | 66.41 | 4.43 | N/A |
| 2014 | 65.29 | 4.33 | N/A |
| 2015 | 69.58 | 4.42 | N/A |

Source: Annual Hospital Reports for 2013, 2014 and 2015, Division of Health Facilities, Licensure and Certification, MSDH

B. Project Description

Forrest General Hospital requests CON authority for the addition of a linear accelerator at Forrest General Cancer Center. The applicant states that Forrest General Cancer Center (“Cancer Center”) is the only comprehensive community cancer center in Forrest General’s 19-county service area, and is accredited by the College of Surgeons Commission on Cancer.

The applicant states that the Cancer Center currently operates two (2) linear accelerators which are being utilized in excess of the Center’s expected level of patient services and the State Health Plan’s optimum volume threshold. However, the applicant states that the Cancer Center does not have equipment designated as backup, and the excess services being performed on the current linear accelerators cause more wear and tear than that which occurs through normal use.

Forrest General proposes to add a linear accelerator at the Cancer Center by constructing a First Floor addition to house the vault for the equipment. The applicant indicates that the addition will involve approximately 2,146 square feet of construction, as well as a newly covered entry of approximately 1,531 square feet.

The proposed capital expenditure of \$5,654,262 includes, but is not limited to, a new Varian Medical Systems linear accelerator at a cost of \$3,540,897.00 and new construction at an estimated cost of \$1,621,428 (see the Financial Feasibility Section of this Staff Analysis for a complete breakdown of expenditures). The application contains a cost estimate from Perkins & Williamson Architecture, PLLC, authorized to do business in the State of Mississippi.

The Bureau of Health Facilities Licensure and Certification approved the site for the Cancer Center, located at 1414 South 28th Street, Hattiesburg, MS on April 24, 2018. The applicant states that the capital expenditure will be obligated by July 1, 2018 and they expect the proposed project will be complete by May 31, 2019.

The applicant states that the project will not require additional personnel. However, Forrest General will acquire an addition of 51.6 full time equivalent personnel during the first year of the project. The income statement contained in the application indicates that the cost of salaries and benefits during the first year of the project will be \$423,067.

Forrest General states that the final objectives of the proposed project are: to assure the availability of comprehensive cancer services by Forrest General Hospital for its patients; to enhance the consistency and quality of health services by the Cancer Center for its patients; and to achieve the continuous goal of providing the best standard of care for patients of the Cancer Center.

II. TYPE OF REVIEW REQUESTED

The Mississippi State Department of Health will review Certificate of Need (CON) applications for the acquisition or otherwise control of therapeutic radiation therapy equipment (linear accelerator) under the applicable statutory requirements of Sections 41-7-173, 41-7-191, and 41-7-193, Mississippi Code of 1972 Annotated, as amended. MSDH will also review applications for CON according to the general criteria listed in the *Mississippi Certificate of Need Review Manual, April 9, 2017, Revision*; all adopted rules, procedures, and plans of the MSDH; and the specific criteria and standards listed below.

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 10 days of publication of the staff analysis. The opportunity to request a hearing expires June 14, 2018.

III. CERTIFICATE OF NEED CRITERIA AND STANDARDS

A. State Health Plan (SHP)

The *FY 2015 Mississippi State Health Plan (MSHP)* contains policy statements, and criteria and standards, which the applicant is required to meet before receiving CON authority for the Acquisition or Otherwise Control of Therapeutic Radiation Equipment and/or the Offering of Therapeutic Radiation Services. This application, for the addition of a linear accelerator, is in compliance with applicable policy statements and criteria and standards.

Policy Statement 4, in regards to Certificate of Need Criteria and Standards for Therapeutic Radiation Services states: "The MSDH may consider a CON application for the acquisition or otherwise control of an additional therapeutic radiation unit by an existing provider of such services when the applicant's existing equipment has exceeded the expected level of patient service, i.e. 320 patients per year or 8,000 treatments per year for the two most recent consecutive years as reported on the facility's Renewal of Hospital License and Annual Hospital Report." The applicant indicates that

Forrest General has two linear accelerators, which exceeded 16,000 treatments per year for the two most recent consecutive years as reported on Forrest General's Renewal of Hospital License and Annual Hospital Report. Therefore, the applicant is in compliance with the Policy Statement regarding acquisition or otherwise control of additional therapeutic radiation equipment.

SHP Criterion 1 – Need

Current providers of therapeutic radiation services must demonstrate that the applicant's existing therapeutic equipment has exceeded the expected level of patients/service, i.e. 320 patients per year/unit or 8,000 treatments per year/unit for the most recent 24-month period.

Forrest General provided documentation that in Fiscal Year 2016 the Cancer Center's two linear accelerators performed 17,281 treatments, or an average of 8,640.5 treatments per unit. The applicant further submits that in Fiscal Year 2017, the Cancer Center's two linear accelerators performed 17,184 treatments, or an average of 8,592 treatments per unit. Therefore, the applicant is in compliance with this need criterion.

SHP Criterion 2 – Accessibility

The applicant affirms that diagnostic x-ray, CT scanner and ultrasound services are available either onsite at the Cancer Center, or at Forrest General Hospital, located less than a mile from the Cancer Center's campus.

SHP Criterion 3 – Availability of Staff

Forrest General documented and affirmed that the service will have, at a minimum, the following full-time dedicated staff: one board-certified radiation oncologist-in-chief; one dosimetrist; one certified radiation therapy technologist certified by the American Registry of Radiation Technologists; and one registered nurse; and the service will have, at a minimum, access to a radiation physicist certified or eligible for certification by the American Board of Radiology. The applicant exceeds this requirement with documentation of three (3) certified dosimetrists, a Nurse Practitioner, four (4) full-time radiation oncology registered nurses, and two (2) medical radiation physicists, who are certified by the American Board of Radiology.

SHP Criterion 4 – Access to Appropriate Staff

The applicant affirms that the Cancer Center offers all patients access to brachytherapy services, treatment aides, social workers, dietitians and physical therapists through the resources of Forrest General Hospital.

SHP Criterion 5 – Residency of Physicians

Forrest General assures that all radiation oncologists responsible for therapeutic radiation services at the Cancer Center reside within 60 minutes normal driving time of the facility.

SHP Criterion 6 – Access to Simulator

The applicant submits that Forrest General Cancer Center is an existing provider of radiation therapy services and utilizes a simulator meeting the specified requirements.

SHP Criterion 7 – Computerized Treatment Planning System

The applicant affirms that the Cancer Center utilizes a computerized planning system with the capability of simulation of multiple external beams, display of isodose distributions in more than one plane, and the performance of dose calculations for brachytherapy implants.

SHP Criterion 8 – Board Certified/Eligible Radiation Oncologist

Forrest General affirms that all radiation therapy treatments provided at the Cancer Center are under the control of a Board-certified radiation oncologist.

SHP Criterion 9 – Approval

Forrest General affirms that the proposed site, plans and equipment shall receive approval from the Division of Radiological Health prior to the implementation of the project.

SHP Criterion 10 – Quality Assurance Program

The applicant affirms that: (a) the Cancer Center currently adheres to a quality assurance program in the area of radiation therapy that meets the guidelines established by the American College of Radiology; and (b) the Cancer Center's quality assurance program complies with all standards established by the American College of Radiology.

SHP Criterion 11 – Understanding and Agreement

Forrest General affirms its understanding that failure to comply with Criterion No. 10 (a) and (b) may result in revocation of the CON (after due process) and subsequent termination of authority to provide therapeutic radiation services.

B. General Review (GR) Criteria

Chapter 8 of the *Mississippi Certificate of Need Review Manual, April 9, 2017, 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 is in compliance with the policy statements and service specific criteria and standards contained in the *2015 State Health Plan* pertaining to the acquisition or otherwise control of therapeutic radiation equipment, as discussed above.

GR Criterion 2 - Long Range Plan

The applicant submits that Forrest General Hospital is the flagship facility of Forrest Health, a network of hospitals and clinics across 19 counties in South Mississippi. Forrest General further submits that Forrest Health's long-range plan includes the assurance that a comprehensive range of health services are available to and accessible by all residents of the service area. Consistent with this long-range plan, the applicant states that this proposed project is the result of a process that included discussions with the Cancer Center's radiation oncologists and staff, as well as the governing Board of Trustees of Forrest Health.

GR Criterion 3- Availability of Alternatives

Forrest General states that there are no viable alternatives to the proposed project that would meet the health care needs of the community served by the Forrest General Cancer Center. The applicant states that the Cancer Center's existing linear accelerators are currently operating in excess of optimum capacity, and the proposed project, which involves the installation of an additional linear accelerator, is the only way to address a clear community health need.

The applicant maintains that this project is not a duplication of existing services. Forrest General asserts that the project has been developed in response to consistently high utilization of the linear accelerators at the Cancer Center. The applicant expects that the project will promote and enhance quality assurance by increasing the availability of radiation therapy services at the Cancer Center. In addition, the applicant states that the addition of a linear accelerator will significantly reduce the wear and tear on the Center's existing radiation therapy units, thereby prolonging the useful life of these medical assets.

GR Criterion 4 - Economic Viability

The applicant states that the projected charges are based on Forrest General's existing charge structure for radiation therapy services. Forrest General believes that the consistently high utilization of radiation therapy services at the Cancer Center demonstrates the need for the addition of a linear accelerator.

The project will be financed by a loan with 4% interest over a five (5) year period. The application contains a financial feasibility letter, prepared by Forrest General's Chief Financial Officer, which indicates that Forrest General has the ability to undertake this project.

GR Criterion 5 - Need for the Project

The applicant submits that as a Mississippi community hospital, Forrest General Hospital is accessible to all residents of the services area, including low-income persons, racial and ethnic minorities, women, handicapped persons and other underserved groups, and the elderly.

Forrest General Hospital is located in General Hospital Service Area 8 ("GHSA"), wherein there is one other freestanding provider of radiation therapy services. However, according to the applicant, the proposed project will not have an adverse impact on the other provider of radiation therapy services in GHSA 8 as the proposed project was submitted in direct response to an institutional need demonstrated by the high utilization of radiation therapy services at Forrest General Cancer Center. The applicant documents that the Cancer Center's two linear accelerators performed 17,281 treatments in Fiscal Year 2016 for an average of 8,640.5 treatments per unit, and 17,284 treatments in Fiscal Year 2017 for an average of 8,592 treatments per unit. Therefore, Forrest General Cancer Center's radiation therapy equipment has performed in excess of 8,000 treatments per unit per year for the most recent 24-month period, in compliance with Need Criterion

1(c) stated in the *2015 State Health Plan*.

The applicant received one letter of support for the proposed project.

GR Criterion 6 –Accessibility

Forest General submits 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 and will continue to have access. A copy of the applicant’s admissions policy is included in the application.

The percentage of gross patient revenue and actual dollar amount of healthcare provided to medically indigent and charity care patients for the last two years are presented below:

| | FY 2017 | FY 2016 |
|---|----------------|----------------|
| Charges Forgone, based on established rates | \$22,985,242 | \$27,646,912 |
| Estimated Cost to Charity Care | \$6,797,582 | \$7,986,300 |
| Equivalent percentage (%) to Charity Care | <u>1.29%</u> | <u>1.60%</u> |

Note: The applicant expects that the level of charity care provided in the two (2) years following projected completion will be in the same range as provided in FY 2016 and FY 2017.

GR Criterion 7- Information Requirement

Forrest General affirms that they will record and maintain the information required by this criterion and shall make the data available to the Mississippi Department of Health within fifteen (15) business days of request.

GR Criterion 8 - Relationship to Existing Health Care System

Forrest General submits that the only other provider of radiation therapy services in GHSA 8 is a freestanding cancer center in Laurel, approximately 35 miles from Forrest General’s Cancer Center. The applicant further submits that the Forrest General Cancer Center is hospital-based and serves a large, 19-county service area.

GR Criterion 9 - Availability of Resources

The applicant states that Forrest General Hospital will be able to staff the expansion of radiation therapy services with existing personnel. Forrest General submits that the applicant is an accredited institution with a long history of health service excellence, and that the Cancer Center complies with all accreditation standards and regulatory requirements with respect to staffing.

GR Criterion 10 - Relationship to Ancillary or Support Services

The applicant asserts that Forrest General currently offers all necessary support and ancillary services for the provision of radiation therapy.

GR Criterion 11- Health Professional Training Programs

The applicant states that Forrest General Hospital's Family Medicine Residency Program offers on-site training and experience for medical residents and the proposed project's enhancement of radiation therapy services will further the clinical needs of this program.

GR Criterion 12 – Access by Health Professional Schools

The applicant states that the proposed project will not affect the clinical needs of health professional training programs. The applicant further states that the project will serve the clinical needs of Forrest General's Medicine Residency Program.

GR Criterion 13 – Access to Individuals Outside Service Area

The applicant states that the Criterion 13 is not applicable to the proposed project.

GR Criterion 14 – Construction Projects

The proposed project is not for construction of a facility.

GR Criterion 15 – Competing Applications

The applicant states that Forrest General Hospital is not aware of any competing applications.

GR Criterion 16 - Quality of Care

The applicant asserts that Forrest General Hospital is accredited by DNV GL (Det Norske Veritas Germanischer Lloyd), licensed by the Mississippi State Department of Health, and certified for participation in the Medicare and Medicaid programs.

Forrest General believes that the proposed project will improve the quality of care by increasing the availability and accessibility of radiation therapy services to cancer patients in need on treatment.

IV. FINANCIAL FEASIBILITY

A. Capital Expenditure Summary

| Cost Item | Projected Cost | Percentage (%) of Total* |
|------------------------------------|-----------------------|---------------------------------|
| Construction Cost - New | \$1,621,428 | 29% |
| Construction Cost - Renovation | \$0 | 0% |
| Capital Improvements | \$0 | 0% |
| Total Fixed Equipment Cost | \$0 | 0% |
| Total Non-Fixed Equipment Cost | \$3,540,897 | 63% |
| Land Cost | \$0 | 0% |
| Site Prep Cost | \$0 | 0% |
| Fees | \$143,610 | 3% |
| Contingency Reserve | \$68,100 | 0% |
| Capitalized Interest | \$154,227 | 3% |
| Other | \$126,000 | 2% |
| Total Proposed Expenditures | \$5,654,262 | 100% |

Note: Percentages have been rounded.

The above capital expenditure is allocated for the addition of a linear accelerator at Forrest General Cancer Center. The project involves 3,677 sq. ft. of construction, which includes 1,531 sq. ft. for a covered entry. (See Attachment 2). The cost of construction for this project (\$540.49 per sq. ft.) is above the high range of projects listed in the 2018 Edition of *Building Construction Costs – with RSMeans data*. However, the RSMeans data estimates may not allow for the costs of shielding necessary for radiation therapy services.

B. Cost to Medicaid/Medicare

The applicant's projections of gross patient revenue percentage and actual dollar amount to Medicaid and Medicare payor sources for the first year of operation is presented below (With Project):

| Payor Mix | Utilization Percentage (%) | First Year Revenue (\$) |
|---------------------|-----------------------------------|--------------------------------|
| Medicare | 50 | \$773,495,200 |
| Medicaid | 16 | 253,182,854 |
| Commercial | 23 | 360,474,197 |
| Self Pay | 7 | 101,776,161 |
| Charity Care | 1 | 19,287,872 |
| Other | 3 | 41,169,597 |
| Total | 100 | \$1,549,385,882 |

C. Effect on Operating Cost

The applicant's projections of gross revenues for the first, second, and third years of operation, expenses and net income are shown in Attachment 1. Utilization, cost, and charges are also included in the applicant's Three-Year Projected Operating Statement (see Attachment 1).

V. RECOMMENDATION OF OTHER AFFECTED AGENCIES

The Division of Medicaid was provided a copy of this application for review and comment. No comments had been received from the Division of Medicaid regarding this project as of this staff analysis.

VI. CONCLUSION AND RECOMMENDATION

This project is in substantial compliance with the criteria and standards for the addition of therapeutic radiation therapy equipment as contained in the *FY 2015 Mississippi State Health Plan*; Chapter 8 of the *Mississippi Certificate of Need Review Manual, April 9, 2017, Revised*; and all adopted rules, procedures, and plans of the Mississippi Department of Health.

The Division of Health Planning and Resource Development recommends approval of this application submitted by Forrest County General Hospital dba Forrest General Hospital for the addition of a linear accelerator.

ATTACHMENT 1
Forrest County General Hospital, d/b/a Forrest General Hospital
Addition of Linear Accelerator
Three-Year Projected Operating Statement
(With Project)

| | Year 1 | Year 2 | Year 3 |
|----------------------------------|-----------------------|-----------------------|-----------------------|
| Revenue | | | |
| Patient Revenue: | | | |
| Inpatient | \$ 892,627,940 | \$ 901,554,220 | \$ 910,569,762 |
| Outpatient | 656,757,941 | 663,325,521 | 669,958,776 |
| Gross Patient Revenue | 1,549,385,882 | 1,564,879,740 | 1,580,528,538 |
| Charity Care | 19,287,862 | 19,480,741 | 19,675,548 |
| Deductions from Revenue | 1,094,097,978 | 1,105,038,958 | 1,116,089,347 |
| Net Patient Revenue | \$ 436,000,041 | \$ 440,360,042 | \$ 444,763,642 |
| Other Operating Revenue | \$ 12,691,408 | \$ 12,818,322 | \$ 12,946,505 |
| Total Operating Revenue | \$ 448,691,449 | \$ 453,178,364 | \$ 457,710,147 |
| Expenses | | | |
| Operating Expenses: | | | |
| Salaries | \$ 167,626,253 | \$ 169,302,515 | \$ 170,995,541 |
| Benefits | 42,812,857 | 43,240,985 | 43,673,395 |
| Supplies | 105,435,163 | 106,489,515 | 107,554,410 |
| Services | 61,154,832 | 61,766,381 | 62,384,045 |
| Lease | 6,923,864 | 6,993,103 | 7,063,034 |
| Depreciation | 29,622,089 | 29,913,252 | 30,207,326 |
| Interest | 5,296,335 | 5,305,267 | 5,313,192 |
| Other | 29,659,160 | 29,955,752 | 30,255,309 |
| Total Expenses | \$ 448,530,553 | \$ 452,966,769 | \$ 457,446,251 |
| Net Income (Loss) | \$ 160,896 | \$ 211,595 | \$ 263,897 |
| Assumptions | | | |
| Inpatient days | 137,391 | 138,765 | 140,153 |
| Outpatient days | 100,684 | 101,691 | 102,708 |
| Procedures | 262 | 265 | 267 |
| Charge per outpatient day | \$6,523 | \$6,523 | \$6,523 |
| Charge per inpatient day | \$6,497 | \$6,497 | \$6,497 |
| Charge per procedure | \$5,913,687 | \$5,913,687 | \$5,913,687 |
| Cost per inpatient day | \$3,262 | \$3,264 | \$3,264 |
| Cost per outpatient day | \$4,455 | \$4,454 | \$4,454 |
| Cost per procedure | \$1,711,949 | \$1,711,763 | \$1,711,575 |

**ATTACHMENT 2
 Forrest County General Hospital, d/b/a Forrest General Hospital
 Addition of Linear Accelerator**

Computation of Construction and Renovation Cost

| <u>Cost Component</u> | <u>Total</u> | <u>New Construction</u> | <u>Renovation</u> |
|---|--------------------|-----------------------------|-------------------|
| New Construction Cost | \$1,621,428 | \$1,621,428 | |
| Renovation Cost | \$0 | | \$0 |
| Total Fixed Equipment Cost | \$0 | | |
| Total Non-Fixed Equipment Cost | \$3,540,897 | \$0 | |
| Capital Improvement | \$0 | | |
| Land Cost | \$0 | \$0 | |
| Site Preparation Cost | \$0 | \$0 | |
| <i>Fees (Architectural, Consultant, etc.)</i> | \$143,610 | \$143,610 | \$0 |
| <i>Contingency Reserve</i> | \$68,100 | \$68,100 | \$0 |
| <i>Capitalized Interest</i> | \$154,227 | \$154,227 | \$0 |
| <i>Other</i> | \$126,000 | | |
| Total Proposed Capital Expenditure | \$5,654,262 | \$1,987,365 | \$0 |

| | | | |
|--------------------|--------------|---------|-------|
| Square Footage | 3,677 | 3,677 | |
| Allocation Percent | | 100.00% | 0.00% |

| | | | |
|---|--------------------|--------------------|------------|
| Costs Less Land, Non-Fixed Eq., Cap. Improvement & Other | \$2,113,365 | \$1,987,365 | \$0 |
|---|--------------------|--------------------|------------|

| | | | |
|-----------------------------|-----------------|-----------------|----------------|
| Cost Per Square Foot | \$574.75 | \$540.49 | #DIV/0! |
|-----------------------------|-----------------|-----------------|----------------|