MEMORANDUM

TO: Dr. R. Bowen Loftin
    President

SUBJECT: Recommendation from the Council of Built Environment: Construction of Addition to Building 1171 (Radioactive Waste Building)

At its June 14, 2011 meeting, the Council of Built Environment reviewed a request received from Environmental Health and Safety, approved by Dr. Rodney McClendon, to construct a 750 square foot addition to the Radioactive Waste Building (1171). The space will be used for storage of liquid radioactive material waste, work area and restroom to facilitate waste disposal operations. An estimate of $122,500 (including 10% contingency) to construct the addition was provided by Facilities Services. The funds to construct the addition are available in reserve within Environmental Health & Safety accounts.

The Facilities Utilization Review Sub-Council (FURsc) met on June 3, 2011, and reviewed the recommendation. FURsc analysis shows that the addition is needed to consolidate the liquid radioactive waste storage and disposal operations. The Facilities Utilization Review Sub-Council made the recommendation to the CBE to support the request for the addition to Building 1171.

The Design Review Sub-Council found no concerns for this addition and recommends approval of the request to construct the addition to the Radioactive Waste Building.

The Technical Review Sub-Council met on June 13, 2011, with John Salsman and James Rainer from Environmental Health and Safety to review the request. The sub-council recommended approval for the addition if the CIS Networking and Telecommunications concerns are addressed and funded.

CBE unanimously approved the construction of the proposed addition to the Radioactive Waste Building (1171) and recommends approval by the President.

Karan L. Watson  Date  Rodney P. McClendon  Date
Provost and Executive Vice President  Vice President for Administration
for Academic Affairs  Co-Chair, Council of Built Environment
Co-Chair, Council of Built Environment

Recommendation Approved:

R. Bowen Loftin  Date
President

Enclosures

cc: Members, Council of Built Environment
    Charley Clark
    Chris Meyer
    John Salsman

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May 11, 2011

MEMORANDUM

TO: Dr. Karan L. Watson, Co-Chair
    Dr. Rodney P. McClendon, Co-Chair Council of Built Environment

THRU: Dr. Rodney P. McClendon
       Vice President for Administration

THRU: Charley B. Clark
       Associate Vice President, University Risk and Compliance

THRU: Christopher M. Meyer
       Assistant Vice President, Safety and Security

FROM: John M. Salsman
      Director, Environmental Health and Safety

SUBJECT: Request for Addition at Building 1171

Environmental Health and Safety is requesting approval to construct a 750 ft\(^2\) addition to the Radioactive Waste Building (1171) per the attached document.

Your favorable consideration of this request is greatly appreciated.

Attachment
Proposed Addition – Radioactive Waste Building (1171)

Summary

Environmental Health and Safety (EHS) is requesting approval to construct a 750 ft² addition to the Radioactive Waste Building (1171). The space will be used for storage of liquid radioactive material waste, work area and restroom to facilitate waste disposal operations. An estimate of $122,500 (including 10% contingency) to construct the addition was provided by Facilities Services. The funds to construct the addition are available in reserve within EHS accounts.

History and Departmental Needs

Building 1171 was constructed in 1985 for the purpose of storage and disposal operations of solid radioactive material waste collected from laboratory operations at Texas A&M University. The building was constructed with a drain that was plumbed to an underground liquid waste holding tank only; the tank was not connected to any drain lines or sanitary sewer. This meant that liquid radioactive waste could not be disposed at Building 1171. Since the time of construction, state regulations have changed to allow some liquid radioactive wastes which are not chemically hazardous and contain concentrations of radioactive materials within prescribed regulatory limits, to be disposed via release to a sanitary sewer system. A recent project by TAMU Utilities and Energy Management extended a new sanitary sewer line from the area of Building 1171 to a connection point with the university’s main sanitary sewer line that feeds our wastewater treatment facility. Building 1171 drains have now been connected to the sanitary sewer.

Liquid radioactive waste storage and disposal has occurred in several locations over the years, most recently at the Hazardous Waste Building (1165) on Dairy Center Road. Due to a slow increase in hazardous waste disposal volumes over the past several years, there is a need for additional space for storage and processing of hazardous waste at Building 1165. Additionally, EHS needs to find a permanent, safe home for liquid radioactive waste disposal operations.

Justification

EHS continues to experience an increase in hazardous waste disposal volumes, which is causing overcrowding issues at Building 1165. By constructing an addition to Building 1171, two problems can be solved. EHS can move the liquid radioactive waste storage and disposal out of Building 1165. This will provide more consolidation and storage space at Building 1165 for the disposal operations of hazardous waste (non-radioactive). In addition, the proposed expansion at Building 1171 will allow safe liquid and solid radioactive waste material handling/consolidation/disposal to take place in a single location, thus increasing efficiency and establishing a permanent home for all radioactive waste storage. As indicated above, the sanitary sewer connection at Building 1171 will allow liquid radioactive waste to be disposed within regulatory limitations.
EHS intends to construct 750 ft\(^2\) of new space. Based on the estimate provided by Facilities Services, the construction will cost $122,500. EHS has the necessary funds for the construction in accounts 242509 and 871070.

**Details for Building Addition**

It is proposed that a 750 ft\(^2\) addition to Building 1171 be constructed. Building 1171 (see attached photograph) is located on Nuclear Science Road next to the Nuclear Reactor. The additional space will be added to the east side of the building. See the attached drawing for details of the proposed addition. The storage portion of the expansion will be semi-conditioned, to remain between 60 \(^\circ\)F and 85 \(^\circ\)F. The restroom and work area will be maintained at a range between 65 \(^\circ\)F and 75 \(^\circ\)F, due to requirements of equipment associated with the disposal of radioactive liquids. There will be a door installed to connect the existing facility with the addition. An automatic fire alarm and fire sprinkler system will be installed in the addition and be retrofitted into the existing facility. The security system installed in the existing facility will be expanded to cover the proposed addition.

**Cost Details**

We have received a cost estimate from Facilities Services for the design and construction of the facility. The total cost is estimated at $122,500. A breakdown is as follows:

- Design Fees $ 9,000
- Construction Cost $ 90,000
- Facilities Services Administration & Support $ 14,500
- Contingency $ 9,000

Building 1171 Addition
Radioactive Waste Building (1171)
Proposed Expansion - Building 1171

Existing

Proposed
Location of Building 1171
MEMORANDUM

TO: Dr. Karan Watson
    Provost and Executive Vice President for Academic Affairs

    Dr. Rodney McClendon
    Vice President for Administration

FROM: Prof. Ward Wells
      Design Review Sub-Council

DATE: May 26, 2011

RE: Design Review Sub-Council Report
    Addition at Buildings 1247 and 1171

On May 25, 2011 the Design Review Sub-Council (DRsc) reviewed the request from Environmental Health & Safety and University Police Department to construct an addition to Building 1247, Hazardous Waste Office and Support Building, located on Dairy Center Road. The DRsc also reviewed the request from Environmental Health & Safety to construct an addition to Building 1171, Radioactive Waste Building, located on Nuclear Science Road. There were no comments and the DRsc recommends both projects for approval by the CBE.

cc: Design Review Sub-Council Members
    John Salsman
    Elmer Schneider
    Jo Williams
MEMORANDUM

To: Dr. Karan Watson  
   Chair, Council for the Built Environment

Dr. Rodney McClendon  
   Chair, Council for the Built Environment

Subject: Proposed Building Addition – Radioactive Waste Building (#1171)

RECOMMENDATION

The Council for the Built Environment’s (CBE) Facilities Utilization Review sub-committee (FURsc) recommends that the CBE support the request by the Environmental Health & Safety Department (EHSD) to construct a 750 square foot addition to the Radioactive Waste Building (#1171).

SCOPE

The FURsc met this morning to consider the request by the Environmental Health & Safety Department (EHSD) to construct a 750 square foot addition to the Radioactive Waste Building (#1171). As stated in their request, “The space will be used for storage of liquid radioactive material waste, work area and restroom to facilitate waste disposal operations.”

The funds needed to construct the addition are available in EHSD reserve accounts. The total project costs for the addition have been estimated by Facilities Services to be approximately $122,500.

ANALYSIS

The building is located on Nuclear Science Road near the University’s Nuclear Reactor and the addition is needed to consolidate the liquid radioactive waste storage and disposal operations. The enlarged facility will also facilitate the better utilization of building #1165 for non-radioactive wastes operations and the addition will improve the safe handling of liquid and solid radioactive waste in a single location, thus increasing efficiency and establishing a permanent home for all radioactive waste storage.

We are pleased to offer this recommendation and welcome further inquiries related to this analysis.

Sincerely,

James Massey
   Chairman, CBE-Facilities Utilization Review sub-council
   Interim Associate Vice President for Facilities

Attachments

CC: CBE-FURsc members
MEMORANDUM

TO: Dr. Karan Watson
    Provost and Executive Vice President

    Dr. Rodney McClendon
    Vice President for Administration

SUBJECT: Request for addition to Building 1171

On June 13, 2011, John Saisman and James Rainer from Environmental Health and Safety (EHS) presented to the CBE-Technical Review Sub-council.

Project
The proposal requested approval to construct a 750-sq. ft. addition to the Radioactive Waste Building (1171). The space will be used for storage of liquid radioactive material. The funds to construct the addition are available in reserve within EHS accounts.

EHS continues to experience an increase of hazardous waste disposal volumes, which is causing overcrowding at other facilities (building 1165). By constructing an addition to building 1171, two problems can be solved. EHS can move liquid radioactive waste storage and disposal out of the 1165 facility. This will provide more consolidation and storage space at 1165 for the disposal operations of nonradioactive hazardous waste. In addition, the proposed expansion at building 1171 will allow safe liquid and radioactive waste material handling/consolidation/disposal to take place in a single location, thus increasing efficiency and establishing a permanent home for all radioactive waste storage.

The following details were submitted by members of the Technical Review Sub-council. The Sub-council recommends approval if the concerns below are addressed and funded.

CIS Networking
EHS expressed a desire that there be provision for connecting 1171 to the campus data network and to either the campus Siemens fire alarm network or to the Nuclear Science Complex fire alarm system. That would mean:

1. Conduit would need to be placed during construction to connect back to the nearest hardhole.
2. Fiber (and possibly copper) pulled in and terminated.

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3. A location be defined in the new building for fiber termination, data network equipment, and any needed fire panel expansion.

Items 1 & 2 would need to be coordinated with Telecommunications, and they would be the ones to provide cost estimates. For CIS to build out fiber circuits for the data network connection, and for the fire panel connection and then to provide a network switch and cabling inside the building for data network connectivity for a couple of data drops, would be approximately $1000 in addition to the costs from Telecommunications.

For this small a building, the fiber and network equipment can mount flat on the wall, preferably in appropriately sized metal enclosures.

A separate wiring closet is not needed. At a minimum, I would recommend that there be a location defined for fiber and network equipment termination and a conduit run from that location stubbed out in the ground ready to connect back to the nearest handhole at some future date.

Telecommunications
We have fiber and a handhole outside of the building. If the project will provide a conduit (at least 2” but we prefer a 4”) from one of the two rooms to the handhole, we will install a fiber optic cable that will connect to the Brayton ORM building. This will support VoIP for voice, any CIS network drops requested and a fiber pair to a Siemens area aggregation point. The project share of this fiber will be $5,000.00. The balance will come from Telecommunications Infrastructure funds. We ask that Facilities coordinate with Deb Duncan for the fiber placement and voice/security requirements and CIS for data connections.

Tom Reber
Chair, Technical Review Sub-Council
Associate Vice President for Student Affairs

Attachments
Xc: Technical Review Sub-council