APPENDIX L – HISTORICAL SIGNIFICANCE OF THE ENVIRONMENTAL RESEARCH CENTER

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BUILT FOR THE PEOPLE OF THE UNITED STATES
The Environmental Research Center Building
(Formerly The Chemical Engineering Building)
Muscle Shoals, Alabama

In a November 12, 1950 letter addressed to the editor of the *Florence Times*, Charles H. Young, Director of TVA's Division of Chemical Engineering, invited the public to attend an open house to inspect TVA's new Chemical Engineering Building, now known as the Environmental Research Center. "This fine new laboratory and office building, designed primarily for functional efficiency, has long been needed to consolidate the research, engineering, and administrative staffs which formerly were housed in widely scattered laboratories and offices. We—my staff and I—are proud of this splendid new building, and we are looking forward to the opportunity of showing you the many unusual features which make it in our opinion one of the best equipped and most attractive work places in the southeastern United States." (*Florence [AL] Times*, November 12, 1950)

The *Florence-Times*, in an accompanying article, encouraged attendance at the open house. They wrote that those who attended the event were "due for an eye-opening treat for they will see scientific equipment as advanced as any in the field of chemistry today." The article pointed out that the "modern, architecturally attractive new building houses scientific apparatus which would excite the admiration of a Buck Rogers or a Flash Gordon." But the article goes on to point out the purpose of the new laboratory is essentially practical. In fact, Chief of TVA's Research and Engineering Branch summed up the importance of the new lab: "Today's research feeds tomorrow's hunger." (*Florence [AL] Times*, "Eye-Opening Treat In Store – TVA's Open House Wed., November 13, 1950)

By the time the Division of Chemical Engineering occupied their new building, TVA had accumulated a substantial pool of chemical research, process development, and chemical plant design facilities and skills. It probably had more "know-how" in electric phosphorus furnace technology than any other organization in the United States. TVA's technical and production resources were called upon for national defense, both during World War II and in the 1950s for the Korean Conflict. TVA supplied more than sixty percent of the elemental phosphorus required by our armed forces during World War II for use in smoke and incendiary bombs, shells, tracer bullets and other munitions.

Post-war development resulted in the rapid growth of fertilizer technology. TVA created a fertilizer and agriculture program that was national, and eventually, international in scope. In 1963, TVA's fertilizer and munitions facility changed its name to the National

Fertilizer Development Center (NFDC) to better reflect TVA's achievements. In 1988 the NFDC announced its Environmental Initiative, placing top priority on environmentally-related research, development and demonstration programs with emphasis on pollution prevention. In 1990 the NFDC was renamed the National Fertilizer and Environmental Research Center to better reflect corporate changes and program emphasis on environmental problems facing agriculture, agribusiness and industry. This same year, TVA closed its large-scale fertilizer production facilities. TVA renamed the facility the Environmental Research Center (ERC) in 1994.

TVA's fertilizer program stands as one of the agency's great successes. TVA's inventiveness contributed to our nation's bountiful food supply, as well as that of the world. Many, including Dr. Norman Borlaug, Nobel Prize winner and Father of the Green Revolution, credit TVA with being responsible for many countries' self-sufficiency in food production. Much of this world-renowned work took place at the Chemical Engineering Building (Environmental Research Center).

While the work conducted at this facility is important on a regional, national, and international level, the building is significant, too. Whether you prefer to call it the Chemical Engineering Building, the Rotunda Building, or the ERC, it was described at its opening as "the finest of its kind" and "one of the most interesting buildings in the world." It was the first TVA architectural project designed by an outside firm. The New York City firm of Alfred Fellheimer & Steward Wagner, Architects and Engineers, designed the building in 1944. Best known for their design of train stations, including the Art Deco-styled Cincinnati Union Terminal and the Buffalo, New York, Terminal, they held a reputation for creating handsome structures with a strong sense of function and practicality. While an outside firm designed the structure, TVA constructed the building beginning in 1946. Employees moved into the building in 1950.

Principal design features were established by Roland Wank, an employee of Fellheimer & Wagner at the time of design. Before joining this private practice, Wank held the position of TVA's Chief Architect. By all accounts, the structure was architecturally impressive. Featured in *Progressive Architecture* in November 1951, the magazine highlighted the structural design and architectural features of the Chemical Engineering Building including the circular entrance hall with its two-story window wall and transparent plastic stair-rail panels and its laboratories with the most modern features of the time.

One of the most amazing features of the new lab was a system of vertical service shafts extending from basement to penthouse on both sides of the laboratory wing corridors. Each shaft carries a complete set of services needed for lab workers including gas, vacuum, air under pressure, hot and cold water, steam, several types of electrical and communications current and chemical drains. The architects, with a respectful gesture to the rapid strides of science, included additional piping for services that might be useful in the future.

TVA was proud of this new building. In a brochure, most likely produced for the open house, TVA touts the "permanence and ease of maintenance evident in features such as tile walls, terrazzo floors, plastic panels, and aluminum fittings. Excellent lighting is provided by the high, double-pane windows and rows of fluorescent lights." The *Florence Times* pronounced that "the exterior of buff, smooth-faced brick strikes a refreshing note in an industrial area, while the careful use of pleasing and varied colors in walls, floors, and entrance hall;

splendidly-equipped locker rooms and lavatories; acoustical tile for laboratory and office ceilings; air-conditioning and attention paid to safety and fire protection—all contribute to making the new building one of the pleasantest places to work in the southeast." (*Florence [AL] Times*, "Muscle Shoals Residents Invited to Attend Chemical Engineering Building Open House," November 12, 1950)

TVA's new building attracted much attention and with its large auditorium, it hosted many chemical and engineering conferences.

But one of the most important events to take place at the Chemical Engineering Building was the celebration of TVA's 30th Anniversary. On May 18, 1963, President John F. Kennedy, standing in front of the Chemical Engineering Building, addressed a crowd of 15,000. He remarked on the prosperity

TVA had brought to the region and to the nation. As part of this trip, President Kennedy also spoke at Vanderbilt University's 90th anniversary celebration and, to promote his fledgling space program, at Redstone Arsenal in Huntsville, Alabama.

Besides these very public events, there was another reason that President Kennedy traveled to the South on that spring day. By 1963, the civil rights movement was at the forefront of national issues. Two weeks prior, Birmingham, Alabama's Commissioner of Public Safety, Eugene "Bull" Connor, had turned fire hoses and dogs on civil rights demonstrators in Birmingham. Around the same time, Alabama Governor George Wallace issued his threat to "stand in the schoolhouse door" to keep black students from enrolling at the University of Alabama. President Kennedy's visit to the south was an opportunity to celebrate high profile milestones publicly while speaking privately with Wallace.

President Kennedy never spoke the words "civil rights" in his speeches that day. His remarks were much more subtle. At Vanderbilt he stated: "We live in an age of movement and change, both evolutionary and revolutionary, both good and evil . . . A special burden rests on the educated men and women of our country—to reject the temptations of prejudice and violence, and to reaffirm the values of freedom and law on which our society depends." He went on to say that [the educated citizen] knows that for one man to defy a law or court order he does not like is to invite others to defy those which they do not like, leading to a breakdown of all justice and order. He knows, too, that every fellow man is entitled to be regarded with decency and treated with dignity."

Kennedy's trip to Alabama brought him into a rather cold, face-to-face meeting with Wallace. The Governor had been extremely critical of the President for sending 3,000 federal troops into Alabama earlier in the month when rioting swept through Birmingham. It was widely reported that, during the helicopter flight from Muscle Shoals to Huntsville, the President and the Governor had what was described as "a brief discussion" touching on racial matters and the growing tensions in Birmingham. (*St. Louis [MO] Post-Dispatch*, "Appeal in Tennessee; Omits It in Alabama: Says Southern Leaders Must Be Responsible, Avoid Violence," May 19, 1963)

Less than one month later, on June 11, 1963, Wallace stood in the door-way to block the attempt of two black students, Vivian Malone and James Hood, to register at the University of Alabama. President Kennedy federalized the Alabama National Guard, and ordered its units to the university campus. Wallace then stepped aside and returned to Montgomery allowing the students to enter.

It has been demonstrated that the Chemical Engineering Building has played a role in our nation's history, and it is a significant historic structure. The National Register of Historic Places (NRHP) lists our nation's cultural resources worthy of preserving. To be eligible for listing in the NRHP, a historic property must meet one of four criteria:

(1) associated with events that have made a significant contribution to the broad patterns of our history;
(2) associated with the lives of persons significant in our past;
(3) embody distinctive characteristics of a type, a period, or method of construction, or that represent the work of a master, or that possess high artistic values; and
(4) have yielded, or are likely to yield information important in prehistory or history.

The Chemical Engineering Building meets three of the four criteria. TVA, as a federal agency, is required by law to preserve its historic properties [National Historic Preservation Act, Section 110(a)(1)]. Executive Order 13827 (Preserve America) is an effort by the Bush Administration to improve the stewardship of federal real property assets. This Executive Order's guidelines instruct federal agencies to provide leadership in preserving America's heritage by actively advancing the protection, enhancement, and contemporary use of the historic properties of the Federal Government and to increase their knowledge of historic properties under their care and to enhance the management of these assets.

The Preserve America initiative also offers grants for federal-community partnerships. When the Chemical Engineering Building opened in 1950, the community, and TVA, celebrated this state-of-the-art building. With its use as a lab and its role in the Green Revolution, there may be a possibility of a community partnership involving the sciences. Alabama has a Civil Rights Trail, a heritage tourism effort, and this structure could be a stop on that trail interpreting the meeting between Kennedy and Wallace. There are many opportunities that could be pursued other than the current proposal to mothball this truly historic property.