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MEMORANDUM FOR NEPA FILE

FROM:

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SUBJECT:

Supplement Analysis for Celgard's Proposed Project Change under the Electric Drive Vehicle Battery and Component Manufacturing Initiative (DOE/EA-1713)

New Information: Proposed Change to Celgard's Project

Location: Celgard's Plant in Concord, North Carolina

Proposed by: Celgard LLC

1. Introduction

This project was one of 30 projects the Department of Energy (DOE) selected for financial assistance from the March 19, 2009, funding opportunity announcement DE-FOA-0000026, *Recovery Act – Electric Drive Vehicle Battery and Component Manufacturing Initiative*. DOE's proposed action was to provide a \$49.3 million in financial assistance via a cost-sharing arrangement with Celgard LLC. The total cost of the proposed project was estimated at \$101.8 million. On April 30, 2010, DOE concluded that its proposed action and Celgard's proposed project would not have any significant impacts on the human environment, and therefore issued a Finding of No Significant Impact (FONSI).

The original project analyzed in DOE's Environmental Assessment (EA) DOE/EA-1713 [April 30, 2010] involved construction of an industrial facility (approximately 135,000 square feet) on approximately 20.6 acres of land for the manufacturing of separator materials for commercial hybrid-electric vehicle batteries. The project would build a manufacturing plant with sufficient capacity to manufacture at least 1,000,000 square meters of separator material to support the assembly of at least 20,000 plug-in hybrid-electric vehicle batteries per year. The project included warehouse space, five truck docks, and an ancillary building of approximately 5,000 square feet. The facility would also include manufacturing equipment, shipping and receiving docks and warehousing facilities, product test laboratories, quality assurance laboratories, administrative offices, common areas, and maintenance shops.

## 2. NEPA Analysis to Date

The EA DOE/EA-1713 was prepared in accordance with the Council on Environmental Quality's *National Environmental Policy Act* (NEPA) regulations (40 CFR Parts 1500 to 1508) and DOE NEPA implementing regulations (10 CFR Part 1021). It analyzed the potential environmental impacts of providing funding to Celgard and Celgard's proposed project to construct the industrial facility. The EA determined that the proposed project would increase air emissions; disturb soils, vegetation, and wildlife; increase the potential for groundwater contamination; and increase energy use, noise and traffic. However, all of these impacts would be minor. Celgard would be required to adhere to applicable permit requirements during construction and operations. All other environmental impacts analyzed in the EA were determined to be negligible. Based on the analysis in the EA, DOE determined that providing funding to Celgard, and Celgard's proposed project, would result in no significant adverse impacts to the human environment. DOE issued the final EA and FONSI on April 30, 2010.

In July 2010, DOE completed a supplemental analysis due to Celgard's expansion of the manufacturing building from the original project plans. Celgard added 11,000 square feet of floor space at its Concord, NC, location in order to optimize the floor plan. The change was due to: (1) a need for increased spacing around the manufacturing equipment to improve product flow and manning effectiveness; (2) a need for increased maintenance workspace to allow for additional staging of refurbished parts; (3) a need for a stand-alone battery lab in the manufacturing area and additional floor space for testing stations of the larger format electric drive vehicle battery cells; and (4) a need for a larger conference room. The manufacturing elements were unchanged in the method or scale of operation from the original proposal. Additionally, the volume of separator material produced did not change.

## 3. Description of the Proposed Change

Celgard intends to create an additional 69,000 square feet of floor space in the manufacturing building at its Concord, NC, location in order to optimize the floor plan. The manufacturing building would be increased from the previous estimate to approximately 220,000 square feet. The increased building space would include process equipment workspace, maintenance workspace and storage of equipment spares. The expansion project would increase the building footprint and approximately double the separator manufacturing capacity. The original site (land) size remains the same at approximately 20.6 acres.

## 4. Analysis

- The EA analyzed potential impacts for construction of a small industrial facility for manufacturing of advanced batteries for automotive applications. The changes proposed by Celgard would occur within the existing site footprint and would not impact any of the resource areas evaluated in the EA. The proposed expansion is designed to meet all current state and local zoning restrictions. The expansion would not require new permitting or site facility reviews. DOE has determined that this expansion is a connected action and this supplement analysis includes a review of the associated potential impacts.
- The proposed expansion would result in only minor changes to impacts from air emission and greenhouse gases. Air emission calculations show that expected emissions would remain significantly lower than any permit triggers for criteria pollutants or hazardous air

pollutants. The additional equipment, or emission sources, is of the same type and process method as the original equipment. A small increase in the duration of potential construction-related air emissions would occur for approximately 2 additional months.

- The expansion would result in no change to noise impacts. The short term minor impacts to noise levels are expected during the additional construction phase of the proposed facility.
- The proposed expansion, still within the original maximum footprint, would result in no change to soils and geology impacts. Overall, the impacts would be localized and minor.
- The proposed expansion, still within the maximum original footprint, would result in no change to groundwater impacts as the construction and post-construction Stormwater Pollution Prevention Plan was based on the original building and potential future expansion. Although, during construction and operations, there is a potential for groundwater contamination from a potential spill, spill control devices and best management practices would minimize any potential impacts.
- The expansion would result in no change to vegetation and wildlife impacts. The landscaping plan would be implemented in compliance with the business park's covenants.
- The expansion would result in changes to potential socioeconomic impacts. The build out of this expansion would result in additional production and staff positions. Similarly, an additional small number of temporary construction workers may be needed for this work, with a similar small increase in the deliveries needed for construction materials. These potential changes in impacts would be minor.
- The expansion would result in a minor change in of utilities and energy use impacts.
- The expansion would result in a minor change to transportation and traffic impacts. Construction would have minor impacts to traffic lasting for approximately 2 additional months.
- There would be no change to occupational health and safety impacts. The existing Celgard facility located in Charlotte, NC, has an Environmental Health & Safety Plan in place that was most recently updated in February 2009. This plan would be modified to address health and safety issues associated with the proposed expansion at the new Concord facility.

## 5. Findings

The changes proposed by Celgard would occur well within its existing plant boundary and would not significantly change the impacts for any of the resource areas evaluated in the EA. DOE has therefore determined that the proposed changes to the project fall within the scope of the analyses documented in the EA completed in April 2010. DOE has further determined that the potential impacts that may be associated with Celgard's proposed project, as well as the proposed minor changes to that project, have been adequately evaluated by the EA and the FONSI issued in April 30, 2010, remains valid. Therefore, a supplement to the EA, or any other additional NEPA analysis, is not needed at this time.