DOE/EA-1719

Final Environmental Assessment

For

Novolyte Technologies, Inc.

Electric Drive Vehicle Battery and Component Manufacturing Initiative Project Zachary, LA

November 2010

Prepared for:
Department of Energy
National Energy Technology Laboratory

National Environmental Policy Act (NEPA) Compliance
Cover Sheet

Proposed Action:

The U.S. Department of Energy (DOE) proposes, through a cooperative agreement with Novolyte Technologies, Incorporated (Novolyte), to partially fund the expansion of Novolyte's current operations in Zachary, Louisiana, to increase capacity and utilization of its existing electrolytes production facility. This facility would support the anticipated growth in the lithium-ion battery industry and, more specifically, the electric drive vehicle (EDV) industry and hybrid-electric vehicle (HEV) industry. If approved, DOE would provide approximately 50 percent of the funding for the project.

Type of Statement: Final Environmental Assessment

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Abstract:

DOE prepared this Environmental Assessment (EA) to assess the potential for impacts to the human and natural environment of its Proposed Action -- providing financial assistance to Novolyte under a cooperative agreement. DOE's objective is to support the development of the EDV industry in an effort to substantially reduce the United States' consumption of petroleum, in addition to stimulating the United States' economy. More specifically, DOE's objective is to accelerate the development and production of various EDV systems by building or increasing domestic manufacturing capacity for advanced automotive batteries, their components, recycling facilities, and EDV components. DOE's program will enable market introduction of various electric vehicle technologies by lowering the cost of battery packs, batteries, and electric propulsion systems for EDVs through high-volume manufacturing.

Under the terms of the cooperative agreement, DOE would provide approximately 50 percent of the funding for the expansion of Novolyte's current operations in Zachary, Louisiana, to increase capacity and utilization of its existing electrolytes manufacturing facility (referred to as the "Proposed Project" within this EA). The Proposed Project would help to meet the growing North American demand for electrolytes as the EDV and HEV markets develop. The expansion would include increasing capacity and utilization of the existing electrolytes facility, and would include constructing a new production building, moving existing equipment into the new facility, and adding additional capabilities to meet the forecasted demand. Additionally, the Proposed Project would create 18 permanent jobs.

The environmental analysis identified that the most notable changes, although minor, to result from Novolyte's Proposed Project would occur in the following areas: air quality and greenhouse gas, noise, geology and soils, surface water and groundwater, vegetation and wildlife, solid and hazardous wastes, transportation and traffic, and

human health and safety. No significant environmental effects were identified in analyzing the potential consequences of these changes.

Public Participation:

DOE encourages public participation in the National Environmental Policy Act (NEPA) process. The draft EA was released for public review and comment on September 5, 2010. The public were invited to provide oral, written, or e-mail comments on the draft EA to DOE by the close of the comment period on October 4, 2010. Copies of the draft EA were also distributed to cognizant Federal and State agencies. Comments received by the close of the comment period were considered in preparing this Final EA for DOE's Proposed Action. The EA is also available on NETL's website at http://www.netl.doe.gov/publications/others/nepa/ea.html.

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ACRONYMS

Acronym	Definition
APE	Area of Potential Effects
AQRV	air quality related value
ASTs	Aboveground storage tanks
BMP	best management practices
CAA	Clean Air Act
CAP	Corrective Action Plan
CFR	Code of Federal regulations
CO	carbon monoxide
CO_2	carbon dioxide
CX	Categorical exclusion determination
DEQ	Department of Environmental Quality
DOE	Department of Energy
DXA	1,4-dioxane
EA	Environmental Assessment
EDV	electric drive vehicle
EERE	Energy Efficiency and Renewable Energy
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
FONSI	Finding of No Significant Impact
GHG	greenhouse gas
gpd	gallons per day
HAP	hazardous air pollutants
HEV	hybrid-electric vehicle
L	liter
$LiPF_6$	lithium hexafluorophosphate
LPDES	Louisiana Pollutant Discharge Elimination System
m	meter
mg	milligram
mtpy	metric tons per year
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NO_2	nitrogen dioxide
Novolyte	Novolyte Technologies, Incorporated
NO_x	nitrogen oxides
O_3	ozone
OpA	Oprairie silt
Pb	lead
PM	particulate matter
PM_{10}	particulate matter 10 microns
$PM_{2.5}$	particulate matter 2.5 microns
ppm	parts per million
PSD	prevention of significant deterioration
Recovery Act	American Recovery and Reinvestment Act of 2009, Public Law 111-5
RMP	Risk Management Plan
ROD	Record of Decision
SHPO	State Historic Preservation Office
SIP	State Implementation Plan

Acronym	Definition
SO_2	sulfur dioxide
SPCC	Spill Prevention, Control, and Countermeasures
SWPPP	Stormwater Pollution Prevention Plan
SR	State Route
tpy	tons per year
TSD	transport, storage and disposal
U.S.	United States
U.S.C.	United States Code
UrA	urban land
USFWS	United States Fish and Wildlife Service
VOC	volatile organic compound
VT	Vehicle Technologies

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1.0 PURPOSE AND NEED

1.1 Background

The U.S. Department of Energy's (DOE) National Energy Technology Laboratory (NETL) manages the research and development portfolio of the Vehicle Technologies (VT) Program for the Office of Energy Efficiency and Renewable Energy (EERE). A key objective of the VT program is accelerating the development and production of electric drive vehicle (EDV) systems to substantially reduce the United States' consumption of petroleum. Another of its goals is the development of production-ready batteries, power electronics, and electric machines that can be produced in volume economically to increase the use of EDVs.

Congress appropriated significant funding for the VT Program in the American Recovery and Reinvestment Act of 2009, Public Law 111-5 (Recovery Act) to stimulate the economy and reduce unemployment in addition to furthering the existing objectives of the VT Program. DOE solicited applications for this funding by issuing a competitive Funding Opportunity Announcement (DE-FOA-0000026), Recovery Act - Electric Drive Vehicle Battery and Component Manufacturing Initiative, on March 19, 2009. The announcement invited applications in seven areas of interest:

- Area of Interest 1 – Projects that would build or increase production capacity and validate production capability of advanced automotive battery manufacturing plants in the United States.
- Area of Interest 2 – Projects that would build or increase production capacity and validate production capability of anode and cathode active materials, components (e.g., separator, packaging material, electrolytes and salts), and processing equipment in domestic manufacturing plants.
- Area of Interest 3 – Projects that combine aspects of Areas of Interest 1 and 2.
- Area of Interest 4 – Projects that would build or increase production capacity and validate capability of domestic recycling or refurbishment plants for lithium-ion batteries.
- Area of Interest 5 – Projects that would build or increase production capacity and validate production capability of advanced automotive electric drive components in domestic manufacturing plants.
- Area of Interest 6 – Projects that would build or increase production capacity and validate production capability of electric drive subcomponent suppliers in domestic manufacturing plants.
- Area of Interest 7 – Projects that combine aspects of Areas of Interest 5 and 6.

The application period closed on May 19, 2009, and DOE received 119 proposals across the seven areas of interest. DOE selected 30 projects based on the evaluation criteria set forth in the funding opportunity announcement; special consideration was given to projects that promoted the objectives of the Recovery Act – job preservation or creation and economic recovery – in an expeditious manner.

This project, proposed by Novolyte Technologies, Incorporated (Novolyte), was one of the 30 projects that DOE selected for funding. DOE's Proposed Action is to provide $20.6 million in financial assistance in a cost-sharing arrangement with the project proponent, Novolyte. The cost of the project is estimated at $41.2 million.

1.2 Purpose and Need for Department of Energy Action

The overall purpose and need for DOE action pursuant to the VT Program and the funding opportunity under the Recovery Act is to accelerate the development and production of various EDV systems by building or increasing domestic manufacturing capacity for advanced automotive batteries, recycling facilities, and EDV components, in addition to stimulating the United States' economy. This work will enable market introduction of various electric vehicle technologies by lowering the cost of battery packs, batteries, and electric propulsion systems for EDVs through high-volume manufacturing. DOE intends to further this purpose and satisfy this need by providing

financial assistance under cost-sharing arrangements to this and the other 29 projects selected under this funding opportunity announcement.

This and the other selected projects are needed to reduce the United States' petroleum consumption by investing in alternative vehicle technologies. Successful commercialization of EDVs would support DOE's Energy Strategic Goal of "protect[ing] our national and economic security by promoting a diverse supply and delivery of reliable, affordable, and environmentally sound energy." This project would also meaningfully assist in the nation's economic recovery by creating manufacturing jobs in the United States in accordance with the objectives of the Recovery Act.

1.3 National Environmental Policy Act and Related Procedures

This Environmental Assessment (EA) is prepared in accordance with the National Environmental Policy Act (NEPA), as amended (42 U.S.C 4321), the President's Council on Environmental Quality regulations for implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508), and DOE's implementing procedures for compliance with NEPA (10 CFR 1021). This statute and the implementing regulations require that DOE, as a Federal agency:

- Assess the environmental impacts of any Proposed Action;
- Identify adverse environmental effects that cannot be avoided, should the Proposed Action be implemented;
- Evaluate alternatives to the Proposed Action, including a No Action Alternative; and
- Describe the cumulative impacts of the Proposed Action together with other past, present, and reasonably foreseeable future actions.

These provisions must be addressed before a final decision is made to proceed with any proposed Federal action that has the potential to cause impacts to the human environment, including providing Federal funding to a project. This EA evaluates the potential individual and cumulative effects of the Proposed Project and the No Action Alternative on the physical, human, and natural environment. The EA is intended to meet DOE's regulatory requirements under NEPA and provide DOE with the information needed to make an informed decision about providing financial assistance.

NEPA requires Federal agencies to take into account the potential consequences of their actions on both the natural and human environments as part of their planning and decision-making processes. To facilitate these considerations, a number of typical actions that have been determined to have little or no potential for adverse impacts are "categorically excluded" (CX) from the detailed NEPA assessment process. Thus, the first step in determining if an action would have an adverse effect on the environment is to assess whether it fits into a defined category for which a CX is applicable. If a CX is applied, the agency prepares a Record of Categorical Exclusion to document the decision and proceeds with the action.

For actions that are not subject to a CX, the agency prepares an EA to determine the potential for significant impacts. If through the evaluation and analysis conducted for the EA process, it is determined that no significant impacts would occur because of the action, then the determination would result in a Finding of No Significant Impact (FONSI). The Federal agency would then publish an EA and the FONSI. The NEPA process is complete when the FONSI is executed.

If significant adverse impacts to the natural or human environment are indicated or other intervening circumstances either exist at the onset of a project or are determined through the EA process, an Environmental Impact Statement (EIS) may be prepared. An EIS is a more intensive study of the effects of the Proposed Action, and requires more rigorous public involvement. The agency formalizes its decisions relating to an action for

which an EIS is prepared in a Record of Decision (ROD). Following a 30-day waiting period after publication of the Final EIS, the Agency may issue a ROD and then the NEPA process is complete.

1.4 Agency Coordination

DOE conducted consultations with the U.S. Fish and Wildlife Service (USFWS), the National Heritage Program, and the State Historic Preservation Office (SHPO) per requirements of Section 7 of the Endangered Species Act, and Section 106 of the National Historic Preservation Act. Copies of the letters are included in Appendix A of this EA.

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2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 Department of Energy's Proposed Action

DOE proposes, through a cooperative agreement with Novolyte, to partially fund the expansion of an existing Novolyte facility located in Zachary, in East Baton Rouge Parish, Louisiana that would produce electrolytes needed for the manufacturing of lithium-ion batteries. This facility would support the anticipated growth in the lithium-ion battery industry and, more specifically, the EDV industry and hybrid-electric vehicle (HEV) industry. If approved, DOE would provide approximately 50 percent of the funding for the project.

2.2 Novolyte's Proposed Project

The Proposed Project is to expand Novolyte's current manufacturing facility to increase their electrolyte material capacity. The expansion would occur in two phases. Phase 1 would involve the expansion of the existing facility by 3,100 square feet (bringing the total square footage of the electrolytes 2-story production facilities and 1-story warehouse facilities to 11,400 square feet) with a low relative humidity room, and additional process equipment (gas chromatograph/mass spectrometer, ion chromatograph, weigh scales and pumps for a new larger reactor and solvent blend tank, vessel cleaning station, packaged steam boiler, new cooling tower), two 3,000-gallon above ground process vessels (solvent blend tank, reactor vessel), two 8,000-gallon finished raw material above ground storage tanks (ASTs) (ethylene carbonate, propylene carbonate), stainless steel shipping vessels, and upgrading of the pot distillation column and the utility transformer to accommodate power for the new equipment. Phase 2 would involve the construction of a contiguous building consisting of a 60,000 square feet of new production facilities (2-story), warehouse space (1-story), and laboratory facilities (1-story), with a maximum height of 40 feet with distillation skids approximately 50 feet in height. Additionally, new equipment would be installed to include a vessel cleaning station, drum filling station, packaged steam boiler, new cooling tower, salt reactor, salt dryer, nitrogen generation unit, environmental control technology, scrubber, and thermal oxidizer, five 8,000-gallon ASTs for storage of purified raw materials (ethylene carbonate, propylene carbonate, dimethyl carbonate, diethyl carbonate, ethyl methyl carbonate), five 8,000-gallon solvent blend ASTs, six new reactors, and stainless steel shipping vessels.

The basic manufacturing process involves (1) purification of liquid organic solvents by distillation, (2) blending of liquid organic solvents in an agitated vessel, (3) blending of a solid inorganic powder into the liquid organic solvents, and (4) packaging of the product in returnable stainless steel shipping vessels. There are no specific hazards associated with the processing techniques other than those common in working with organic solvents, inorganic powders, and rotating machinery.

Phase 1 would increase production capacity to 4,500 tons of electrolyte material during the period, 2010-2013. Phase 2 would begin in 2014, ending in 2015 increasing the plant capacity from 4,500 tons to 10,000 tons. After completion of the expansion project, Novolyte's facility would have capacity to supply the amount of electrolytes necessary to produce a minimum of 100,000 plug-in HEV batteries (or an equivalent amount of EDV batteries).

2.3 General Description and Location

The Proposed Project would be located at the Novolyte Technologies' Zachary facility in East Baton Rouge Parish, Louisiana; approximately 15 miles north of Baton Rouge, Louisiana (see Figure 2.3-1). Novolyte has approximately 100 acres of which 40 acres are currently developed for manufacturing specialty chemicals and electrolytes. Phase 1 would involve the expansion of an existing facility, on previously developed land, situated on the south side of West Irene Road (Figure 2.3-2 and 2.3-3). Phase 2 would occupy approximately 15 undeveloped acres bounded to the north by West Irene Road, to the east by the existing Novolyte facility, to the south by a City-Parish Firing Range used for training, and to the west by a fence line and gravel road (Figure 2.3-2 and 2.3-4). Further north is a decommissioned industrial site formerly used by BP Amoco as a gas sweetening

plant; further east are railroad tracks, State Route (SR) 61, a truck yard, and some widely dispersed residential homes; further south is the City-Parish landfill; and further west is undeveloped land and the Louisiana State Police Training Facility including a minimum security detention center (approximately 1 mile from the facility) followed by the Mississippi River.

2.4 Alternatives

DOE's alternatives to this project consist of the 45 technically acceptable applications received in response to the Funding Opportunity Announcement, Recovery Act - Electric Drive Vehicle Battery and Component Manufacturing Initiative. Prior to selection, DOE made preliminary determinations regarding the level of review required by NEPA based on potentially significant impacts identified in reviews of acceptable applications. A variance to certain requirements in 10 CFR 1021.216 was granted by DOE's General Counsel. These preliminary NEPA determinations and reviews were provided to the selecting official, who considered them during the selection process.

Because DOE's Proposed Action is limited to providing financial assistance in cost-sharing arrangements to projects submitted by applicants in response to a competitive funding opportunity, DOE's decision is limited to either accepting or rejecting the project as proposed by the proponent, including its proposed technology and selected sites. DOE's consideration of reasonable alternatives is therefore limited to the technically acceptable applications and a No Action Alternative for each selected project.

2.5 No Action Alternative

Under the No Action Alternative, DOE would not provide funds to the Proposed Projects. As a result, this project would be delayed while the applicant seeks other funding sources. Alternatively, the applicant would abandon this project if other funding sources were not obtained. Furthermore, acceleration of the development and production of various EDV systems would not occur or would be delayed. DOE's ability to achieve its objectives under the VT program and the Recovery Act would be reduced.

Although this and other selected projects might proceed if DOE decided not to provide financial assistance, DOE assumes for purposes of this environmental analysis that the project would not proceed without DOE assistance. If projects did proceed without DOE's financial assistance, the potential impacts would be essentially identical to those under DOE's action alternative (i.e., providing financial assistance that allows the project to proceed). In order to allow a comparison between the potential impacts of a project as implemented and the impacts of not proceeding with a project, DOE assumes that if it were to decide to withhold assistance from a project, the project would not proceed.

2.6 Alternatives Considered by Novolyte

Novolyte considered one site near the epicenter of the United States automotive industry and/or the primary Tier 1 automotive suppliers, in the Michigan/Ohio area possibly co-located with a battery manufacturer that supplies the United States automotive industry. The decision not to pursue this site was primarily based on the fact that the existing plant infrastructure and resources were available (or could be readily expanded) at the existing Novolyte facility in Zachary, Louisiana to meet the increased production needs associated with the Proposed Project; this includes utilities, the quality control function, warehousing, land, as well as access to vital raw materials and transportation. Additionally, the existing Novolyte facility possess a very reliable and well trained work force that could quickly adapt to meet the challenges of production and operation of the new facility

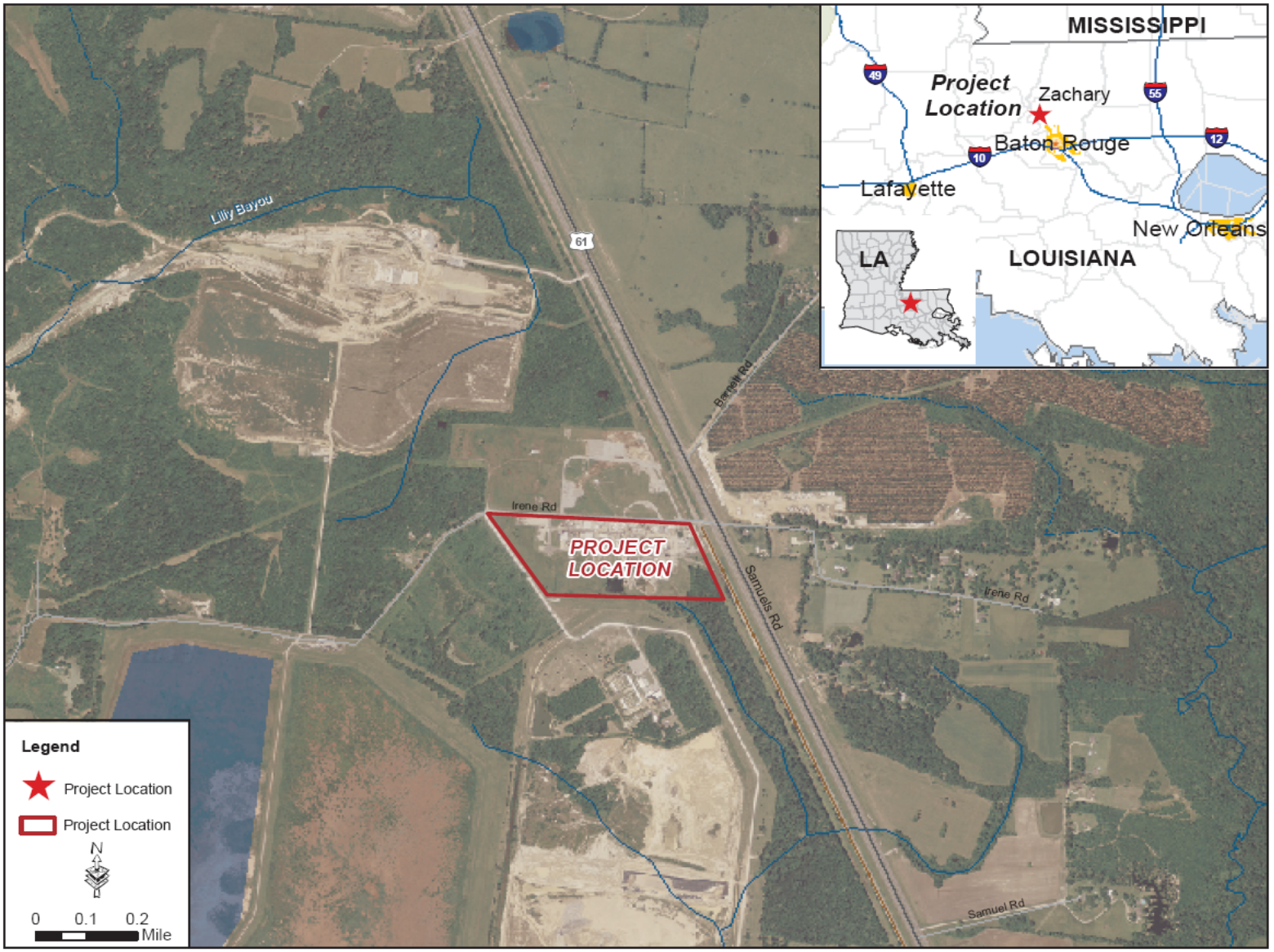

Figure 2.3-1. Regional Site Location Map

Figure 2.3-2. Site Map

Figure 2.3-3. Phase 1 Site Location

Figure 2.3-4. Phase 2 Site Location

2.7 Summary of Environmental Consequences

Table 2.7-1 provides a summary of the environmental, cultural, and socioeconomic impacts of the No Action Alternative and the Proposed Project.

Table 2.7-1. Summary of Environmental, Cultural, and Socioeconomic Impacts

Impact Area	No Action Alternative		Proposed Project	
	Construction	Operations	Construction	Operations
Land Use	Negligible	Negligible	Negligible	Negligible
Meteorology	Negligible	Negligible	Negligible	Negligible
Socioeconomics (Population and Housing)	Negligible	Negligible	Negligible	Negligible
Socioeconomics (Taxes, Revenue, Economy, Employment)	Negligible	Negligible	Beneficial	Beneficial
Environmental Justice	Negligible	Negligible	Negligible	Negligible
Visual Resources	Negligible	Negligible	Negligible	Negligible
Wetlands and Floodplains	Negligible	Negligible	Negligible	Negligible
Cultural Resources	Negligible	Negligible	Negligible	Negligible
Utilities and Energy Use	Negligible	Negligible	Negligible	Negligible
Air Quality	Negligible	Negligible	Minor	Minor
Greenhouse Gases	Negligible	Moderate	Minor	Beneficial
Noise	Negligible	Negligible	Minor	Minor
Geology and Soils	Negligible	Negligible	Negligible/Minor	Minor
Surface Water and Groundwater	Negligible	Negligible	Minor	Negligible
Vegetation and Wildlife	Negligible	Negligible	Negligible/Minor	Negligible
Solid and Hazardous Wastes	Negligible	Negligible	Minor	Minor
Transportation and Traffic	Negligible	Negligible	Minor	Minor
Human Health and Safety	Negligible	Negligible	Minor	Minor

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3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Chapter 3 provides a description of the affected environment (existing conditions) at the project site and a discussion of the environmental consequences of the No Action Alternative and the Proposed Project. Additionally, cumulative impacts and mitigation measures are discussed where appropriate. The methodology used to identify existing conditions and to evaluate potential impacts on the physical and human environment involved the following: review of the Environmental Questionnaire and the Project Narrative prepared by Novolyte; review of documentation provided by Novolyte (Novolyte, 2009a); searches of various environmental databases; agency consultations; and a site visit conducted on December 4, 2009.

3.1 Resource Areas Dismissed from Further Consideration

DOE has determined that various resources would either not be affected or would sustain negligible impacts from Novolyte's Proposed Project and do not require further evaluation. They include land use, meteorology, socioeconomics, environmental justice, visual resources, wetlands and floodplains, cultural resources, and utilities and energy use; therefore, these resource areas are briefly discussed in this section of the EA and will not be carried through for further consideration.

Land Use: The Proposed Project would not result in direct impacts to land use and zoning. According to the East Baton Rouge Parish Planning Department, the land use designation for the site is industrial (BRPPD, 2009). No change in land use designation would be required under the Proposed Project. Surrounding land uses would not be affected.

Meteorology: Zachary, Louisiana, is characterized by a warm climate. Average annual temperature ranges from lows of about 44 degrees Fahrenheit (°F) to highs of approximately 83°F. Winter months (December through February) are the coolest with average monthly low temperatures ranging from 34° to 40°F and high temperatures range from 55° to 62°F. The warmest months are the summer months of April through October. During those months, average monthly low temperatures range from 55° to 63°F and high temperatures range from 77° to 92°F. The maximum average monthly precipitation, which is 6.37 inches, typically occurs in January (NOAA, 2009). For the period between 1980 and 2006, there have been 63 days of severe weather events (i.e., hail, wind, and tornados) (NOAA, 2009). The last Category 4 tornado (i.e., maximum wind speeds 207-260 mph) nearby, which resulted in fatalities and costly damages, occurred on December 6, 1983.

The Gulf Coast is prone to severe weather. In 2005, six tropical systems made landfall along the Gulf Coast including four major hurricanes. Hurricane Katrina, which occurred in August 2005, resulted in significant impacts to the New Orleans area and has been rated the most destructive hurricane in United States history. Zachary, Louisiana, is about 150 miles from the coast and is likely to be affected by severe weather in the region. Because of potential flooding as a result of hurricane events, the regional climate may have a minor impact on the Proposed Project. However, the Proposed Project would have no direct impact on climate.

Socioeconomics: The Proposed Project would result in approximately 18 permanent jobs for both Phase 1 and Phase 2. It is assumed that the majority of the workforce would be drawn from local candidates; therefore, no increase in local population or need for local housing is anticipated. Negligible impacts to local housing and population are anticipated.

Under the Proposed Project, taxes would continue to be paid on the property and no adverse impacts would occur. Workers employed for the Phase 1 construction period (approximately 25-35 construction workers) and the Phase 2 construction period (approximately 60 - 65 construction jobs) are assumed to be currently employed, and residing and paying taxes in the East Baton Rouge Parish area. Increased sales transactions for the purchase of materials and supplies would generate some additional revenues for local and State governments, which would have a negligible but beneficial impact on taxes and revenue.

Secondary jobs related to the increased economic activity stimulated by the Proposed Project may be created. Additional retail services and business employment may result through a multiplier effect, yielding additional sales and income tax revenues for local and State governments, thus having a minor but beneficial impact.

Construction of the project would not result in direct impacts to community facilities, services, school systems, or emergency services of East Baton Rouge Parish because significant numbers of employees are not anticipated to relocate as a result of the Proposed Project. Therefore, negligible impacts to community facilities and services are anticipated.

Environmental Justice: The Proposed Project was evaluated in accordance with *Executive Order 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.* While there are minority and low-income populations in the study area, the Proposed Project would not have a disproportionately adverse impact on these groups.

Visual Resources: The Proposed Project is located on a major roadway in an industrial corridor that houses several major chemical and plastic manufacturers. The site is bounded to the north by West Irene Road, to the east by SR 61, to the south by a City-Parish Firing Range used for training and to the west by a fence line and gravel road. Impacts to identified views and vistas were determined based on an analysis of the existing quality of the landscape views, the sensitivity of the view, and the anticipated relationship of the scale and massing of the proposed buildings to the existing visual environment. Although the new construction would be noticeable, the scale and massing of the proposed building would be consistent with the other buildings on the site.

Wetlands and Floodplains: National Wetland Inventory mapping does not indicate the presence of wetlands within the project site. In addition, the East Baton Rouge Parish Soil Survey did not indicate the presence of hydric soils within the project site (see Section 3.2.3.1), a potential indicator that wetlands could be present. The December 3, 2009 site visit verified no apparent wetlands were located within the project site. A man-made swale (constructed in upland soils; see Section 3.2.3.1) was observed within the project site to facilitate site drainage. As this feature was constructed in uplands and the dominant vegetation is maintained grass, this feature would not be considered jurisdictional.

The Federal Emergency Management Agency, Flood Insurance Rate Map, Map Number 22033C0155E does not indicate the presence of floodplain within the project site. Due to the lack of wetland and floodplain resources within the project site, negligible impacts to these resources would occur from the construction or operations of the Proposed Project.

Cultural Resources: The Area of Potential Effects (APE) for historic structures has been determined to be a quarter of a mile beyond the project limits. This was determined due to somewhat limited sight distances as a result of surrounding industrial structures to the east and northeast, SR 61 and the railroad to the east, and general topography. A review of the National Register of Historic Places (National Register Information System database) and the Louisiana Cultural Resources Map GIS system revealed no historic places within one-half mile of the project site, well beyond the APE for the project. A field survey confirmed that no structures 50 years or older are present within the APE for the project.

A review of the National Register of Historic Places (National Register Information System database) and the Louisiana Cultural Resources Map GIS system revealed four archeological sites within one-half mile of the project site; these are 16EBR128, 16EBR134, 16EBR136, and 16EBR144. There are no recorded archeological sites within the Proposed Project boundaries. The East Baton Rouge Parish Soil Survey (NRCS, 2007) indicates two soil types within proximity to the project site, which includes urban land (UrA), and Oprairie silt (OpA). Urban soils are those soils, which have been previously disturbed and are characteristic of the built-up environment.

Due to the industrial nature of the site, which contains disturbed soils, lack of known archeological sites within the APE, and no known historic properties for architectural resources, DOE made a finding of No Historic Properties Affected for structures or archeological resources. On January 28, 2010, a response from the Louisiana Office of Cultural Development, SHPO concurred with these findings. This determination, however, could change in the event of new information (i.e., archaeological site or historic structure identified or discovered) (see Appendix A).

Utilities and Energy Use: The Novolyte property is located within the service area of the City of Zachary Water System from which the facility receives its potable water supply. The City of Zachary Water System takes its water supply from the Chicot Equivalent Aquifer System through five groundwater wells. Currently, the average daily output of the Zachary water facility is approximately 2.4 million gallons per day (gpd) (Zachary City Public Works, 2009). Process water for the Novolyte facility is drawn from a private onsite groundwater well, which the project proponent estimates is capable of producing 184,000 gpd. All wastewater from the Novolyte facility is routed to an existing onsite biological wastewater treatment facility through a system of drains, sumps, pipes and other collection devices; it is treated then discharged to the Mississippi River under a Louisiana Pollutant Discharge Elimination System (LPDES) permit. During construction for, both Phase 1 and Phase 2 of the Proposed Project, utilities would be supplied by existing services at the Novolyte facility, which would not be adversely impacted by the small increases in temporary demand.

The proposed Phase 2 process to be added by the Novolyte expansion would increase process water demand by approximately 19,000 gpd and the facility expansion would require approximately 2,600 gpd of potable water for use by the new employees. Of these totals, approximately 6,000 gpd of process water and 800 gpd of potable water would be required for Phase 1, while approximately 13,000 gpd of process water and 1800 gpd of potable water would be required for Phase 2. The process water would be provided by the company's onsite groundwater well, which has adequate capacity (184,000 gpd) for this approximate 10 percent increase (refer to Section 3.2.4 for further discussion on the impact to groundwater). The potable water for employee usage and sanitary purposes would be supplied by the City of Zachary Water System. This increase in potable water demand would be negligible to the water utility, which has a capacity of approximately 2.4 million gpd.

Wastewater from the Novolyte facility would be treated at an existing onsite wastewater treatment facility prior to discharge to the Mississippi River. The Louisiana Department of Environmental Quality would ensure that onsite wastewater capacities and discharges are appropriately addressed by Novolyte in accordance with an LPDES permit, which would require modification to accommodate the proposed Phase 1 and 2 facilities (refer to Section 3.2.4 for further discussion on the impact to surface waters). The expansion of the Novolyte facility would have no impact on municipal wastewater utilities.

The City of Zachary is located within the service area of Entergy Power Company, which has over 15,500 miles of high-voltage transmission lines and 1,550 transmission substations and spans portions of four states. Entergy owns and operates power plants with a total electric generating capacity of approximately 30,000 megawatts (Entergy Power, 2009). The Proposed Project (both phases combined) would have an estimated power consumption of approximately 1,088-megawatt hours per month (an average demand of approximately 1.5-megawatt hours). This demand would represent less than 0.005 percent of Entergy Power's generating capacity. Phase 2 of the project would have the potential to triple production within the facility; this would increase power consumption to about 0.015 percent of Entergy Power's generating capacity. The estimated power consumption is estimated to be 0.5 megawatt hours for Phase 1 and 1.0-megawatt hours for Phase 2. Therefore, the impact on electrical utilities from either phase would be negligible (Novolyte, 2009a; Entergy Power, 2009).

3.2 Resource Areas Considered Further

Environmental resource areas carried through for further consideration of the potential impact of the Proposed Project include air quality and greenhouse gases (GHGs), noise, geology and soils, surface water and

groundwater, vegetation and wildlife, solid and hazardous wastes, transportation and traffic, and human health and safety.

3.2.1 Air Quality and Greenhouse Gases

Air Quality Management

The purpose of the air quality analysis is to determine whether emissions from a proposed new or modified source of air pollution, in conjunction with emissions from existing sources, would cause or contribute to the deterioration of the air quality in the area. The Clean Air Act (CAA) requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. NAAQS include two types of air quality standards (40 CFR 50.1(e)). Primary standards protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. EPA has established NAAQS for six principal pollutants, which are called "criteria pollutants": ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter (PM) (particulate matter 10 microns or less [PM_{10}], particulate matter 2.5 microns or less [$PM_{2.5}$]), sulfur dioxide (SO_2), and lead (Pb). A state's air quality regulations may further regulate concentrations of the criteria pollutants. Table 3.2.1-1 lists the NAAQS and Louisiana Ambient Air Quality Standards.

Table 3.2.1-1. National Ambient Air Quality Standards

Pollutant	Standard	Averaging Time	Standard Type
CO	35 ppm (40 mg/m^3)	1-hour	None
	9 ppm (10 mg/m^3)	8-hour	
Pb	0.15 µg/m^3	Rolling 3-Month Average(1)	Primary and Secondary
	1.5 µg/m3	Quarterly Average	
NO_2	0.053 ppm (100 µg/m^3)	Annual (Arithmetic Mean)	Primary and Secondary
PM_{10}	150 µg/m^3	24-hour	Primary and Secondary
$PM_{2.5}$	35 µg/m^3	24-hour	Primary and Secondary
	15.0 µg/m^3	Annual (Arithmetic Mean)	
O_3	0.12 ppm	1-hour(2)	Primary and Secondary
	0.075 ppm (2008 std)	8-hour	
	0.08 ppm (1997 std)	8-hour(3)	
SO_2	0.5 ppm (1300 µg/m^3)	3-hour	Secondary
	0.14 ppm	24-hour	Primary
	0.03 ppm	Annual (Arithmetic Mean)	

(1) Final rule signed October 15, 2008.
(2) As of June 15, 2005. 1-hour O_3 was revoked in all areas except 14 8-hour O_3 nonattainment Early Action Compact Areas. East Baton Rouge Parish, Louisiana, is not an Early Action Compact Area.
(3) The 1997 standard and its implementation rules would remain in place as EPA undertakes rulemaking to address the transition to the 2008 standard. Louisiana Department of Environmental Quality (DEQ) made recommendation for nonattainment area designations to EPA in March 2009 for the 2008 standard.
µg/m^3 – microgram/per cubic meter; ppm – parts per million; std – standard.
Source: EPA, 2009a

To determine compliance with the NAAQS, emissions of criteria pollutants from a new or modified source(s) are modeled to determine their air dispersion concentrations. In addition to the six criteria pollutants outlined in the CAA, several other substances raise concerns with regard to air quality and are regulated through the CAA Amendments of 1990. These substances include hazardous air pollutants (HAPs), and toxic air pollutants such as metals, nitrogen oxide (NO_X), and volatile organic compounds (VOCs). NO_X and VOCs are precursors for O_3.

Areas that meet the air quality standard for the criteria pollutants are designated as being in attainment. Areas that do not meet the air quality standard for one or more of the criteria pollutants are designated as being in nonattainment for that standard. The CAA requires nonattainment states to submit to the EPA a State Implementation Plan (SIP) for attainment of the NAAQS (40 CFR 51.166, 40 CFR 93). Maintenance areas are those that at one point had not met the NAAQS but are currently maintaining the standards through the requirements in the SIP.

The 1990 Amendments to the CAA require Federal actions to show conformance with the SIP. Federal actions are those projects that are funded by Federal agencies and include the review and approval of a Proposed Project through the NEPA process. Conformance with the SIP means conformity to the approved SIP's purpose of eliminating or reducing the severity and number of violations of the NAAQS, and achieving expeditious attainment of such standards (40 CFR, 51 and 93). The need to demonstrate conformity is applicable only to nonattainment and maintenance areas.

Class I Areas and Sensitive Receptors

For areas that are already in compliance with the NAAQS, the Prevention of Significant Deterioration (PSD) requirements provide maximum allowable increases in concentrations of pollutants, which are expressed as increments (40 CFR 52.21). Allowable PSD increments currently exist for three pollutants: SO_2, NO_2, and PM_{10} (Table 3.2.1-2).

Table 3.2.1-2. Allowable Prevention of Significant Deterioration Increments (µg/m^3)

Pollutant--Averaging Period	Class I Area	Class II Area
SO_2--3-Hour	25	512
--24-Hour	5	91
--Annual	2	20
NO_2--Annual	2.5	25
PM_{10}--24-Hour	8	30
--Annual	4	17

µg/m^3 – microgram/per cubic meter.
Source: 40 CFR 52.21(c)

One set of allowable increments exists for Class II areas, which covers most of the United States and another set of more stringent allowable increments exists for Class I areas. Because of their pristine environment, Class I areas require more rigorous safeguards to prevent deterioration of their air quality. For the purposes of PSD review, the Federal government has identified mandatory Class I areas, which as defined in the CAA, are the following that were in existence as of August 7, 1977: national parks over 6,000 acres, national wilderness areas and national memorial parks over 5,000 acres, and international parks (NPS, 2009a). In general, proposed projects that are within 62 miles (100 kilometers) of Class I areas must evaluate impacts of the project on air quality related values (AQRVs) such as visibility, flora/fauna, water quality, soils, odor, and any other resources specified by the Federal Land Manager (NPS, 2009b).

Areas that are not in attainment with the NAAQS are subject to the Nonattainment New Source Review. Overall, for the purposes of air quality analysis, any area to which the general public has access is considered a sensitive receptor site, and includes residences, day care centers, educational and health facilities, places of worship, parks, and playgrounds.

Greenhouse Gases

GHGs are pollutants of concern for air quality and climate change. GHGs include water vapor, carbon dioxide (CO_2), methane, NO_X, O_3, and several chlorofluorocarbons. Water vapor is a naturally occurring GHG and

accounts for the largest percentage of the greenhouse effect. Next to water vapor, CO_2 is the second-most abundant GHG and is typically produced from human-related activities. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities and other sources. Additionally, a number of specialized industrial production processes and product uses such as mineral production, metal production and the use of petroleum-based products can also lead to CO_2 emissions. The manufacturing of lithium-ion battery cathode material could produce CO_2 emissions.

Although regulatory agencies are taking actions to address GHG effects, there are currently no State or Federal standards or regulations limiting CO_2 emissions and concentrations in the ambient air. In response to the *FY2008 Consolidated Appropriations Act* (H.R. 2764; Public Law 110–161), EPA issued the *Final Mandatory Reporting of Greenhouse Gases Rule* (GHG Reporting Rule), which became effective on January 1, 2010. The GHG Reporting Rule requires annual reporting of GHG emissions to EPA from large sources and suppliers in the United States, including suppliers of fossil fuels or industrial GHGs; manufacturers of vehicles and engines; and facilities that emit greater than 25,000 metric tons per year (mtpy) (27,558 tons per year [tpy]) each of CO_2 and other GHGs. The intent of the rule is to collect accurate and timely emissions data to inform future policy decisions and programs to reduce emissions, as well as fight against the effects of climate change.

Additionally, on September 30, 2009, EPA proposed, under the CAA New Source Review and Title V operating permit programs, new GHG thresholds that would trigger review and permitting. This proposed requirement would cover nearly 70 percent of the nation's largest stationary source GHG emitters (including power plants, refineries, and cement production facilities), while shielding small businesses and farms from permitting requirements. The proposed thresholds and requirements are currently being reviewed by Congress.

3.2.1.1 Affected Environment

Air Quality

Ambient air monitoring for each of the criteria pollutants and assessing compliance are the responsibility of the Louisiana Department of Environmental Quality (DEQ), Air Quality Assessment Division, Air Analysis Section. The Louisiana DEQ air pollution regulations are located in Title 33 Environmental Regulatory Code, Part III (LAC 33:III). East Baton Rouge Parish is in moderate nonattainment for the 1997 8-hour O_3 standard and severe nonattainment for the 1-hour O_3. The Louisiana DEQ has also recommended that East Baton Rouge Parish be designated nonattainment for the 2008 8-hour O_3 standard (EPA, 2009b).

Because Zachary, Louisiana is within the East Baton Rouge Parish nonattainment area, Federal actions within Zachary, Louisiana must show conformity with the SIP, and the Proposed Project would fall under the General Conformity Rule; however, for this EA, DOE would not need to demonstrate SIP conformity because in Louisiana, Federal actions covered under the General Conformity Rule because they are in nonattainment areas, do not have to demonstrate conformity if their total direct and indirect emissions would be less than 100 tpy for all criteria pollutants (except VOC, NO_X, and Pb at less than 25 tpy) (40 CFR Part 6, 51, and 93) (see Table 3.2.1-3). The section below provides further discussions on the current and projected emissions from the Novolyte facility.

Current Air Emissions

Novolyte currently owns the facilities at this site where it manufactures electrolytes for lithium-ion batteries under a Louisiana DEQ-issued State Air Permit, Permit Number 0840-00023-14 (issued to predecessor, Ferro Corporation). A State Air Permit is granted to a minor source facility that has the potential to emit less than 100 tpy of any of the six criteria pollutants, or less than 10 tpy of any single HAP or less than 25 tpy of any combination of HAPs. The facility's State Air Permit would be required to be amended to include the emissions for the Proposed Project. Table 3.2.1-3 provides the air emissions from the current operations at the Novolyte facility. Additionally, the potential emissions from the operation of both Phase 1 and Phase 2 of the Proposed

Project are also provided. Further discussions of impacts from the emissions of pollutants from the Proposed Project are in Section 3.2.1.2.

Table 3.2.1-3. Current and Projected Emissions for Novolyte, Zachary Facility

Pollutant	Emissions (tpy) from Current(1) Operations	Emissions (tpy) from Phase 1 and Phase 2 of Proposed(2) Operations	Emissions (tpy) from Phase 1 of Proposed(2) Operations	Emissions (tpy) from Phase 2 of Proposed(2) Operations
CO	31.83	*0.88*	*0.27*	*0.61*
NO_X	20.55	*0.33*	*0.10*	*0.23*
SO_2	0.19	*0.006*	*0.002*	*0.004*
VOC	22.90	*1.53*	*0.47*	*1.06*
$PM_{2.5}$	NR	*0.08*	*0.02*	*0.06*
PM_{10}	6.05	*0.08*	*0.02*	*0.06*
Pb	NA	NR	NR	NR
Total HAP	22.90	0.02	0.0*1*	0.0*1*
CO_2	*11,007*	*1,228.68*	*372.55*	*856.13*

(1) Current emissions are based on 2008 emissions from the Novolyte facility.
(2) Projected Pb emissions are not reported in the Environmental Questionnaire. The estimates for other pollutants are based on controlled emissions.
NA is data not available; NR is data not reported; and tpy is tons per year.
Source: Novolyte 2009a and 2009b

3.2.1.2 Environmental Consequences

3.2.1.2.1 No Action Alternative

The No Action Alternative is treated in this EA as the "No-Build" Alternative. That is, under the No Action Alternative, Novolyte would not construct and operate the lithium-ion based electrolyte manufacturing facility in Zachary, Louisiana because of the absence of DOE funding assistance. The facility would continue to emit air pollutants as described in the Section 3.2.1.1.

With the No Action Alternative, DOE would not fully meet its goal for supporting United States based manufacturing to produce advanced EDV batteries and components. With reduced DOE funding, industries may be less willing to invest in the advanced technology that would help increase production of these batteries, especially the lithium-ion batteries and their components. Because of the greater energy density and lighter weight than other batteries, lithium batteries are proving to be most promising for the commercial viability of electric vehicles (DOE, 2001). Without alternative fuel sources for automobiles, the United States would continue its dependence on and consumption of petroleum and other fossil fuels; consequentially, the current trends of increased CO_2 concentrations in the Earth's atmosphere would continue, increasing the effect on climate change.

3.2.1.2.2 Proposed Project

Construction

The Novolyte facility is located on 40 acres of a 100-acre property in Zachary, Louisiana, the remainder of which is currently undeveloped. Phase 1 would involve the expansion of an existing facility on a previously developed area and Phase 2 would involve new construction on a 15 acre undeveloped parcel. Phase 1 would require demolition activities to provide for the construction of 3,100 square feet of expansion to the existing production facility and warehouse facilities. Phase 2 planned construction would involve 60,000 square feet of new production facilities (process building with control room, warehouse and storage sheds), which would include bulk chemical storage, materials handling, purification, mixing, reactors and ancillary equipment to produce up to 10,000 tpy of electrolyte material.

During the actual construction of the Phase 1 and Phase 2, which would occur over a five-year period, the equipment and vehicles used to construct the proposed facilities would intermittently emit quantities of five criteria air pollutants: CO, NO_X, SO_2, PM_{10}, and VOCs. In addition to tailpipe emissions from heavy equipment and vehicles, ground surface disturbances during excavation and grading activities could potentially generate fugitive dust. Fugitive dust, such as dirt stirred up from construction sites, can affect both environmental quality and public health. The type and severity of the effects depend in large part on the size and nature of the dust particles. The types of effects that can occur to humans include inhalation of fine particles that can then accumulate in the respiratory system causing various respiratory problems including persistent coughs, wheezing, and physical discomfort. DOE expects the overall impacts from fugitive dust emissions would be temporary in duration and of minor intensity.

Exhaust emissions from equipment used in construction, coupled with likely fugitive dust emissions, could cause minor, short-term degradation of local air quality. DOE expects the overall impacts to air quality from the construction of the Proposed Project would be short-term and minor.

Operations

The Phase 1 of the Proposed Project is an expansion of the current manufacturing operation at the Novolyte facility, while Phase 2 of the Proposed Project involves the construction and operation of new production facilities. The planned process-related activities of both phases at the Novolyte facility would include: processing lithium salts including purification of liquid organic solvent, upgrading organic solvents, producing electrolyte formulations, storing of materials, and cleaning of reusable electrolyte shipping containers. Based on estimates for the proposed facility, DOE does not expect that emissions would increase significantly beyond the current emissions rates. Potential emissions from the Proposed Project would be a result of fugitive dust from material handling and CO, NO_X, PM, SO_2 and toxic air pollutants from the process equipment. Routine VOC emissions from storage tanks and other vessels such as mixing/blending vessels would be vented to a flare or thermal oxidizer. Emissions from loading/unloading operations would be recovered and treated in the same way. Particulate emissions from the salt dryers would be controlled by a scrubber, cyclone, or bag filter. The facility has always demonstrated compliance with it's' air operating permit. The permitted air emissions limits were established by the Louisiana DEQ at levels, such that deterioration of the surrounding air quality would not occur. The facility, whether as currently operated or with growth from electrolytes expansion under both phases of the Proposed Project, does not anticipate any barriers to future compliance. There is one Federal mandatory Class I area, Brenton Wilderness Area, within Louisiana and a few in neighboring states: Arkansas, two; Texas, two; and Oklahoma, one. There are no Class I areas within 62 miles (100 kilometers) of the Proposed Project location. Therefore, because there are no Class I areas nearby and because the facility would emit less than 100 tpy, a PSD increment and AQRV analysis for Class I areas would not be required. All other areas within the Louisiana border would be considered Class II. Sensitive receptors within 1 mile of the Novolyte facility include a residential trailer park and a minimum-security detention center. Overall, no measureable adverse impacts to air quality are expected to occur near the Novolyte facility as a result of the Phase 1 or Phase 2 of the Proposed Project.

Carbon Footprint

According to 1996 estimates, Louisiana emitted 59.26 million metric tons of carbon-equivalent GHG (CESLSU, 1999). The principal GHG was CO_2, comprising approximately 89 percent of the overall GHG emissions. The major source of CO_2 emissions was fossil fuel combustion (99 percent), with minor emissions from production and consumption processes, coal mining, municipal waste management, and agricultural solid management. The CO_2 sinks, including an increase in forest carbon storage, offset about 10 percent of the total CO_2 emissions.

In 200*8*, the processes at the Novolyte facility emit*ted* approximately *11,007* tpy (*9,985* mtpy) of CO_2 emissions. *No* other GHGs *were* emitted. *CO_2 will* be emitted from *both* phases of the Proposed Project *see Table 3.2.1-3.* The facility would have no reporting requirements under the *Final Mandatory Reporting of Greenhouse Gases*

Rule, which became effective in January 1, 2010, because the Novolyte facility would emit less than 25,000 mtpy of CO_2 from its processes. Implementation of the Proposed Project would not raise the facility above this threshold and would not affect the facility's compliance with this rule.

The manufacture of EDV batteries and components would increase production of EDVs in the United States. Electric vehicles emit no tailpipe pollutants. Therefore, they can provide significant air-quality benefits to targeted regions (DOE, 1999). Overall, there would be beneficial impacts on climate change, as the Proposed Project would help the viability of the commercial market for EDVs, thereby reducing the carbon footprint of the transportation sector.

3.2.1.3 Cumulative Impacts

Other than Phase 1 and Phase 2 of the Proposed Project, no other projects are planned in this area. Therefore, no reasonably foreseeable actions have been identified that would interact with either phase of the Proposed Project to generate cumulative adverse impacts to local air quality.

3.2.1.4 Proposed Mitigation Measures

During construction, typical mitigation measures to minimize air quality issues caused by fugitive dust and tailpipe emissions would include the following:

- Require all construction crews and contractors to comply with the State regulations for fugitive dust control during construction.
- Maintain the engines of construction equipment according to manufacturers' specifications.
- Minimize the idling of equipment while the equipment is not in use.
- Implement reasonable measures, such as applying water to exposed surfaces or stockpiles of dirt, when windy or dry conditions promote problematic fugitive dust emissions. Adhering to these best management practices (BMPs) would minimize any fugitive dust emissions and therefore reduce the adverse impacts from fugitive dust emissions.

During operations at the Novolyte facility, actions would be taken to ensure that the facility continues to meet the requirements of its air-operating permit. Because of the control devices used on the equipment and BMPs employed at the facility, actual emissions would be well below permitted limits.

3.2.2 Noise

3.2.2.1 Affected Environment

The property is located in an industrial area approximately 15 miles north of Baton Rouge, Louisiana (see Figure 2.3-1), near the small City of Zachary and in a low-population density area. The property is located on West Irene Road, which borders the site to the north. Along the eastern border of the existing Novolyte facility is a railroad line and SR 61, which run parallel to each other. The nearest sensitive receptors to the site are the inhabited homes about 0.5 miles away to the east. The nearest subdivision, a trailer park, is about 1 mile away. The nearest schools and churches are between 2 to 3 miles away, predominantly to the east of SR 61 (EPA, 2009c).

The existing facility currently operates 24 hours a day, seven days a week, with four employee shifts. Approximately 44 people work 9:00 am to 5:00 pm and another 43 employees work the shift schedules (nearly evenly split between the shifts). Currently, 22 trucks per day on average access the existing facility site during normal operations. The site is located within the vicinity of various existing noise sources that contribute to the baseline noise level, including: other chemical and manufacturing businesses; the City-Parish light weapons training range adjacent to the site on the south; the City-Parish Landfill about 0.5 miles away; the Louisiana State Police training facility about 1 mile away; a truck yard located directly across SR 61 from the site; and the Baton

Rouge Metropolitan – Ryan Field Airport approximately 5 miles to the southeast. Furthermore there is general background noise related to traffic on the adjacent SR 61, as well as noise from the railroad line (EPA, 2009c), and from current employee vehicle and truck traffic.

3.2.2.2 Environmental Consequences

3.2.2.2.1 No Action Alternative

Under the No Action Alternative, construction and operations would not occur, therefore, no impacts would occur regarding noise levels.

3.2.2.2.2 Proposed Project

Construction

Short-term but measurable adverse noise impacts are expected during the construction of Phase 1 of the Proposed Project. Phase 1 would involve the expansion of the existing facility by 3,100 square feet on previously developed land situated on the south side of West Irene Road (Figure 2.3-2). Phase 1 would include the installation of various storage tanks, a new cooling tower (or chiller unit), utility upgrades, and indoor handling and industrial process equipment. There would be some minor demolition activities associated with the construction (involving one wall, and possibly part of the roof) that would generate additional noise. Construction trucks and construction workers' personal vehicles would add to the regional traffic noise. Approximately 25 to 35 construction workers would be hired to complete the construction of the facility during Phase 1, and the site would be accessed on average by one construction truck every two days. During the construction phase, noise levels would be localized, intermittent, and temporary. Increases in noise levels during construction would mainly result from the use of heavy construction equipment and delivery trucks. The typical noise levels from any construction site would be expected to be within the range of 75 to 90 decibels. Construction noise levels onsite would primarily be limited to the immediate vicinity of the project site. Because the property is in an industrial area, sufficiently far from any sensitive noise receptors, the temporary impact from increased noise during construction would be minor.

Short-term but measurable adverse noise impacts are expected during the construction of Phase 2 of the Proposed Project. The construction phase would involve the construction of 60,000 square feet of warehouse, production, and laboratory buildings. Phase 2 would include the installation of storage tanks, a new cooling tower (or chiller unit), new and upgraded utilities, and various other handling and industrial process equipment. Approximately 60 to 65 construction workers would be hired to complete the construction during Phase 2, and approximately four trucks per day would access the site for construction purposes. Similar to Phase 1, construction noise levels from Phase 2 would primarily be limited to the immediate vicinity of the project site, and have only temporary minor impact because the property is in an industrial area with existing noise sources, and is sufficiently far from sensitive noise receptors.

Operations

The main sources of noise during Phase 1 and Phase 2 operations would be from the new mechanical equipment, and from the increase in truck and employee-vehicle traffic. Most of the mechanical equipment would be located indoors, though some equipment would be outdoors (cooling tower/chiller unit; electrical transformer, distillation units, vacuum pump, etc); however, this equipment would not likely cause noise levels to exceed levels generated by the current facility. The Proposed Project would also generate a minor long-term increase in local noise from truck and personal vehicle traffic. Together Phases 1 and 2 of the Proposed Project would be expected to result in an increase of six trucks trips per day accessing the property, and additional vehicles due to the hiring of approximately 18 additional permanent employees. These new workers would be split among the four operation shifts, thus reducing the number of vehicles accessing the site concurrently (Novolyte, 2009b). Because the property is in a current industrial area, sufficiently far from any sensitive noise receptors, the impact from noise

would be minor. Furthermore, there are other existing comparable or louder noise sources in the vicinity, including the railroad line, highway, light weapons training range, State police training facility, and landfill.

3.2.2.3 Cumulative Impacts

Other than Phase 1 and Phase 2 of the Proposed Project, no other projects are planned in the area. Therefore, no reasonably foreseeable actions have been identified that would interact with either phase of the Proposed Project to generate cumulative impacts to noise.

3.2.2.4 Proposed Mitigation Measures

No mitigation measures would be required for noise.

3.2.3 Geology and Soils

3.2.3.1 Affected Environment

The main geological landforms present within the project site are interfluves, characterized by a relatively undissected upland or ridge between two adjacent valleys containing streams flowing in the same general direction (NRCS, 2007). The East Baton Rouge Parish Soil Survey (NRCS, 2007) indicates two soil types within proximity to the project site that include urban land (UrA) and Oprairie silt (OpA). Table 3.2.3-1 contains the properties of each soil unit and their respective geological landform.

Table 3.2.3-1. Study Area Soils

Soil Unit	Geologic Landform	Slope (percent)	Flooding Frequency	Hydric Rating	Commercial Building Construction
OpA	Interfluves	0-1	None	Not hydric	Somewhat limited
UrA	Not rated	Not rated	Not rated	Not rated	Not rated

Source: NRCS, 2007

As shown in Table 3.2.3-1, soils within the project site are not prone to flooding. A “none” frequency rating means that flooding is not probable; the chance of flooding is nearly 0 percent in any year and flooding occurs less than once in 500 years. No mapped hydric soils occur within the project site.

Overall, soils within the project site are somewhat limited for commercial building construction (e.g., structures typically less than three stories high and lacking basements). The construction ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs (i.e., depth to a water table, ponding, flooding, subsidence, shrink-swell potential, and compressibility). “Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use and limitations can be overcome or minimized by special planning, design, or installation. In addition, fair performance and moderate maintenance can be expected. OpA soils are somewhat limited for commercial building construction due to the depth to the saturated zone (NRCS, 2007).

Urban soils are those soils that have been previously disturbed and are characteristic of the built-up environment. In regards to the project site, this soil unit includes the existing 40 acres of developed land associated with the location of Phase 1, which occur within the northeastern corner of the project site, and the 15 acres of undeveloped land adjacent associated with Phase 2.

3.2.3.2 Environmental Consequences

3.2.3.2.1 No Action Alternative

Under the No Action Alternative, plant construction and operations would not occur, therefore, no impacts would occur to existing geology and soil resources.

3.2.3.2.2 Proposed Project

Construction

Phase 1 would involve the expansion of an existing facility, on previously developed land (UrA soils associated with development of the existing plant), situated on the south side of West Irene Road; therefore, negligible impacts to geology and soils would be anticipated.

Under Phase 2, a direct permanent adverse impact would occur to soils from the loss of up to 15 acres due to the establishment of impervious surfaces. Construction activities associated with the proposed facility would require site grading, paving, and excavation to support the facility and associated infrastructure (i.e., parking and storm water management). These impacts, however, would be localized and minor. BMPs such as sediment control devices and seeding or sodding of temporarily disturbed areas following construction would reduce the potential for adverse indirect impacts such as soil erosion.

As stated within Section 3.2.3.1, OpA soils within the project site of Phase 2 are somewhat limited for commercial building construction due to the depth to the saturated zone. Design and engineering of the facility and associated infrastructure would take into account the soil engineering properties onsite, avoiding impacts.

Operations

Operations of Phase 1 and Phase 2 of the Proposed Project would have no impacts to either geology or soil resources. Manufacturing would occur within the facility and the product would be transferred offsite using existing road infrastructure.

3.2.3.3 Cumulative Impacts

Industrial, farm and residential uses adjacent to the project site have caused localized and adverse disturbances to soils. Other than Phase 1 and Phase 2 of the Proposed Project, no other projects are planned in this area. Therefore, no reasonably foreseeable actions have been identified that would interact with either phase of the Proposed Project to generate cumulative adverse impacts to local geology and soils.

3.2.3.4 Proposed Mitigation Measures

No mitigation measures would be required for geology and soils.

3.2.4 Surface Water and Groundwater

3.2.4.1 Affected Environment

Surface Water

The Phase 1 and Phase 2 project sites are located within the Bayou Sara-Thompson Watershed, which is adjacent to and east of the Lower Mississippi-Baton Rouge Watershed. The Mississippi River lies approximately 2.5 miles to the west of the site within the Lower Mississippi-Baton Rouge Watershed (EPA, 2009). The Mississippi River is one of the world's major river systems in terms of size and habitat diversity. It is the third longest river in North America, flowing 2,350 miles from its source at Lake Itasca through the center of the continental United States, to the Gulf of Mexico (NPS, 2009).

The Novolyte facility currently discharges treated wastewater effluent to the Mississippi River and storm water to an unnamed canal that flows to the Baton Rouge Bayou as per the requirements of a LPDES permit (Permit No. LA0004057). As part of the permit requirements, Novolyte operates the facility under an approved Stormwater Pollution Prevention Plan (SWPPP).

Groundwater

The principal aquifers in the area of the Phase 1 and Phase 2 project sites are the Chicot Equivalent Aquifer system, which is part of the larger Southern Hills Aquifer system. Water use trends within the Chicot Equivalent Aquifer system showed large increases in water levels from 1980 to 1990, from approximately 65 feet below ground surface to 20 feet below ground surface. From 1990 through 2002, water levels generally declined, with some upward and downward variation, to about 42 feet below ground surface (Louisiana Groundwater Management Commission, 2002). In general, in the area of the project site, the Chicot Equivalent Aquifer system has shown a trend of reducing water levels from 1990 to 2002; however, more recent information is not readily available.

Ferro Corporation, the owner of the site prior to Novolyte, has been operating under a Groundwater Corrective Action Plan (CAP) at the site since July 1995. The CAP is associated with historic onsite groundwater contamination by 1,4-dioxane (DXA). Initially, the DXA plume was located beneath the central portion of the facility at depths of 25 to 45 feet below ground surface. A network of 10 wells was installed to address the need for remedial action (Novolyte, 2010):

- One recovery well at a depth of 38 to 48 feet below ground surface to collect groundwater for treatment (well MW-2A);
- Five monitoring wells at depths of 38 to 48 feet below ground surface to collect samples for analysis (wells MW-1A, MW-3A, MW-4A, MW-CS, and IR-1); and
- Four monitoring wells at depths of 80 to 86 feet below ground surface, also to collect samples (wells MW-1B, MW-2B, MW-3B, and MW-CD).

As part of the CAP, a risk-based cleanup level of 1.2 milligrams per liter (mg/L) was established. Over the years, water samples have been taken quarterly and there has been considerable fluctuation in the DXA concentrations. The overall high concentration was at the start of the remedial activities in July 1995 of 240 mg/L (for well MW-3A) to lows of being undetectable. Overall, DXA concentrations detected in the shallower wells (38 to 48 feet below ground surface; wells MW-2A, MW-3A, MW-CS, and IR-1 have shown detectable concentrations) have generally showed a trend of slight decline or steadiness since 1995. Only two of the deeper wells (80 to 86 feet below ground surface) have shown detectable concentrations of DXA (MW-3B and MW-CD). A detected concentration in one of the deeper wells (MW-3B) has risen steadily, though at considerably lower concentrations than the shallower wells (a maximum of 22 mg/L was measured in August 2005). In addition, the other deeper monitoring well (MW-CD) has shown detected concentrations staying relatively steady at 1 to 2 mg/L with a few instances of drastic increases up to 14 mg/L. In 2009, the shallower well that measured the greatest DXA concentrations (MW-2A) exhibited measured values of 161 to 202 mg/L. In 2009, the deeper well that measured the greatest concentrations (MW-3B) exhibited measured values of 12 to 14 mg/L (Novolyte, 2010).

Pumping of the recovery well (MW-2A) has drawn the DXA plume south to a point of generally being centered around the recovery well. Due to the fluctuations in collected data and the plume movement, current plans are to maintain the existing remedial activities (Novolyte, 2010).

In addition, groundwater remediation activities began onsite in 1985 to address 2-Chlorotoluene contamination. When the recovery well for the DXA remediation activities (MW-2A) was activated the 2-Chlorotoluene recovery and treatment system operations were terminated. The concentration of 2-Chlorotoluene has declined

significantly since the inception of treatment operations (Novolyte, 2010). See Section 3.2.6 for additional information concerning the existing onsite groundwater contamination.

3.2.4.2 Environmental Consequences

3.2.4.2.1 No Action Alternative

Under the No Action Alternative, plant construction and operations would not occur; therefore, no impacts would occur to surface water or groundwater resources.

3.2.4.2.2 Proposed Project

Surface Water

Construction

Construction of Phase 1 and Phase 2 facilities would have minor temporary impacts from runoff to surface waters, which would be minimized through compliance with the SWPPP. There are no surface water features at the Phase 1 and Phase 2 sites; therefore, no alterations to drainage pathways of a watercourse would occur during construction.

Operations

Stormwater discharges for Phase 1 and 2 are regulated under the existing LPDES permit, which would require modification to accommodate the Proposed Project. Impacts would be minimized through the implementation of the SWPPP. As reported by the project proponent, during operations, the Proposed Project would cause a minor increase in the amount of storm water and treated wastewater effluent (less than a 1.4 percent increase) that would be generated onsite. Treated wastewater effluent would continue to be discharged to the Mississippi River and storm water would continue to be discharged to the unnamed canal that flows to the Baton Rouge Bayou, which would result in minor impacts to these receiving waters assuming compliance with all permit conditions.

Groundwater

Construction

Construction of the Phase 1 and Phase 2 facilities would not occur in areas of existing groundwater contamination; therefore, no impacts would be expected with respect to the existing contamination. To comply with applicable State and Federal regulations, the existing facility operates under a Spill Prevention, Control, and Countermeasures (SPCC) Plan to guide the avoidance, minimization, and response to pollutant spills that could affect groundwater during construction. This plan would be modified to accommodate the proposed facilities, reducing the potential of groundwater contamination during construction to negligible or minor.

Operations

Novolyte estimates that their existing onsite groundwater well is capable of producing more than 184,000 gpd. The process water requirements of the Proposed Project would be approximately 19,000 gpd; therefore, the use of this well to obtain process water would represent approximately 10 percent of the well's capacity. In general, groundwater levels have shown declines since 1990 in the Chicot Equivalent Aquifer system; however, the onsite well production rate indicates that adequate water would be available locally to support the proposed facilities. Thus, minor impacts on groundwater levels would be expected.

Novolyte's water supply well is not located within an area of the existing groundwater contamination; therefore, no impacts would be expected with respect to the existing contamination. In addition, Ferro Corporation currently is responsible for the remedial activities and would continue to be responsible in the future. As discussed in the above section on Construction, the existing facility operates under a SPCC Plan, which would be modified to accommodate the proposed facilities, reducing the potential of groundwater contamination from operations to negligible or minor. Thus, no greater than a minor potential for groundwater contamination to occur would be expected.

3.2.4.3 Cumulative Impacts

Industrial, farm and residential uses adjacent to the project site have caused localized and adverse impacts to surface water and groundwater resources, including the contamination of groundwater as previously discussed. Other than Phase 1 and Phase 2 of the Proposed Project, no other projects are planned in this area. Therefore, no reasonably foreseeable actions have been identified that would interact with either phase of the Proposed Project to generate cumulative impacts to local surface water and groundwater.

3.2.4.4 Proposed Mitigation Measures

No mitigation measures would be required for surface water and groundwater.

3.2.5 Vegetation and Wildlife

3.2.5.1 Affected Environment

3.2.5.1.1 Vegetation

The December 3, 2009, site visit of the project site verified the majority of the site is regularly maintained grass. A few young shrubby tree species of sweetgum (*Liquidambar styraciflua*) and willow oak (*Quercus phellos*) were also observed.

3.2.5.1.2 Wildlife

No wildlife species were observed within the study area during the December 3, 2009, site visit. Common wildlife species within the region that utilize this type of habitat include white-tailed deer (*Odocoileus virginianus*), red foxes (*Vulpes vulpes*), raccoons (*Procyon lotor*), cottontail rabbits (*Sylvilagus floridanus)*, squirrels (*Sciurus sp.*), and various other small mammal species such as white-footed mice (*Peromyscus Leucopus*) and shrews (*Sorex sp.)*. The facility staff also indicated snakes have been periodically observed within the project site.

3.2.5.2 Environmental Consequences

3.2.5.2.1 No Action Alternative

Under the No Action Alternative, plant construction and operations would not occur and, therefore, no impacts to vegetation and wildlife.

3.2.5.2.2 Proposed Project

The following sections discuss the potential impacts to vegetation and wildlife as a result of the Proposed Project. Informal coordination letters were sent to both the USFWS and the Louisiana Natural Heritage Program to verify the project would have no impact on any Federally- or State-listed threatened, endangered, or candidate species, or critical habitat within the vicinity of the Proposed Project. In a letter dated November 18, 2009, the USFWS stated the Proposed Project would have no effect on Federally protected, threatened, endangered or candidate species, or critical habitat. In addition, the Louisiana Natural Heritage Program stated that according to their database, no known records exist of these resources within the project site (see Appendix A).

Vegetation

Construction

Phase 1 would involve the expansion of an existing facility, on previously developed land (i.e., impervious surfaces associated with development of the existing plant lacking vegetation); therefore, negligible impacts to vegetation would be anticipated.

Under Phase 2 of the Proposed Project, a direct adverse impact would occur to vegetation from the loss of up to 15 acres of maintained meadow. Construction activities associated with Phase 2 of the Proposed Project would require site grading and removal of vegetation. This vegetation community, however, would not be considered rare or of high value within the region. In addition, this community already experiences human disturbance from mowing of the meadow; therefore, overall impacts from construction would be minor. Following construction, those areas temporarily disturbed would be either seeded or sodded with grass and maintained as lawn areas.

Operations

Other than maintenance of lawn area surrounding the Proposed Project, operations of Phase 1 and Phase 2, are not anticipated to cause adverse impacts to vegetation.

Wildlife

Construction

Phase 1 would involve the expansion of an existing facility, on previously developed land (i.e., impervious surfaces associated with development of the existing plant lacking wildlife habitat); therefore, negligible impacts to wildlife would be anticipated.

Under Phase 2, an indirect adverse impact would occur to wildlife from the loss of approximately 15 acres of meadow. Construction activities associated with the proposed facility would require site grading and removal of vegetation. These activities could destroy small mammal burrows (if present) within the construction footprint. These animals would likely move to similar habitat available adjacent to the site. Noise from construction activities (see Section 3.2.2, Noise) would have the potential to disturb wildlife species within proximity to the study area. Overall adverse impacts, however, would be minor as the area already contains disturbance to habitat within the project site from routine mowing and the site is adjacent to an existing industrial activity that contains human activity and existing associated disturbances.

Operations

Operation of Phase 1 and Phase 2, is not anticipated to create additional disturbance to wildlife other than the mowing of established grassy areas.

3.2.5.3 Cumulative Impacts

Industrial, farm and residential uses adjacent to the project site have caused localized and adverse disturbances to biological resources. Other than Phase 1 and Phase 2 of the Proposed Project, no other projects are planned. Therefore, no reasonably foreseeable actions have been identified that would interact with either phase of the Proposed Project to generate cumulative adverse impacts to vegetation and wildlife.

3.2.5.4 Proposed Mitigation Measures

No mitigation measures would be required for vegetation and wildlife.

3.2.6 Solid and Hazardous Wastes

3.2.6.1 Affected Environment

The primary raw materials used at the facility include organic solvents, acids, lithium compounds, nitrogen, and argon. Due to the quantity of materials stored at the facility, the facility must comply with Emergency Planning and Community Right-to-Know Act requirements and submit an annual Emergency and Hazardous Chemical Inventory Form (Tier I or Tier II form) to the Local Emergency Planning Committee, the State Emergency Response Commission, and the local fire department. The facility's most recent Tier II form for reporting year 2008, reported 138 compounds at the facility (Novolyte, 2009b).

The site is located in EPA Region 6 and operates as a large-quantity generator of hazardous waste (EPA Identification Number LAD092104389), which means the facility generates more than 2,200 pounds of hazardous waste or more than 2.2 pounds of acute hazardous waste per calendar month. The facility generates approximately 165 tons of hazardous waste annually. Hazardous waste streams generated include ignitable waste (D001), corrosive waste (D002), reactive waste (D003), chromium-containing waste (D007), benzene-contaminated waste (D018), waste acetone (U002) and waste ethyl acetate (U112) (Novolyte, 2009c). Wastes are collected and hauled offsite by licensed contractors for treatment or disposal. Most of the hazardous waste generated is incinerated or fuel-blended. In addition, the facility generates Universal Wastes, including used antifreeze, mercury-containing equipment, and electronics that are sent offsite for recycling. Currently, the facility generates approximately 824 tpy of plant trash, non-hazardous bio-sludge and other non-hazardous process waste. Solid waste is landfilled offsite at a permitted landfill in Sorrento, Louisiana. The Louisiana DEQ implements Louisiana's hazardous waste management and solid waste programs and enforces the hazardous and non-hazardous waste management rules. Waste management activities must comply with Environmental Regulatory Code (Louisiana Administrative Code Title 33) administered by the Louisiana DEQ, as well as all applicable Federal regulations under 40 CFR 260-268, 273, and 279 and 29 CFR 1910.

There is currently no underground storage tanks located at the facility. The facility has numerous ASTs that store raw materials indoors at the facility. Approximately 100 ASTs are located outdoors at the facility. Secondary containment is provided in the form of concrete dikes, earthen berms or curbs. Containment systems are equipped with storm water and process sewer systems that flow to either of two 600,000-gallon ASTs or directly to the wastewater treatment system (Novolyte, 2007).

In 1990, Ferro Corporation (Novolyte's predecessor) received notice from the Louisiana DEQ granting official closure of the following areas at the property: Special Waste Pond (OC-0052-A1), Drum Washing Pond (OC-0056-A1), East and West Pond (OC-0064-A1), Treated Effluent Diversion Pond (OC-0128), Treated Diversion Pond (OC-0128-A1), and Treatable Stormwater Basin (OC-0147) (Novolyte, 1990). Based on an environmental assessment conducted at the site in 2008, in addition to the five ponds and basin, listed above, there were five landfills, two incinerators, and three buried or partially buried tanks formerly located at the property.

Historic operations at the property resulted in onsite groundwater contamination of DXA and 2-chlorotoluene. Groundwater extraction and monitoring has been conducted at the property since 1995. The previous owner of the property, Ferro Corporation, under a CAP approved by the Louisiana DEQ, Groundwater Protection Division on November 30, 1994, began groundwater recovery and treatment in 1995. Novolyte currently operates the groundwater treatment system in accordance with the CAP, and Ferro Corporation submits Quarterly Reports to the Louisiana DEQ. The CAP identified groundwater recovery and treatment as the most viable corrective action, which consisted of recovering groundwater from a down-gradient monitoring well (MW-2A) and transferring the water through an aboveground piping system to the groundwater treatment system, which destroys recovered 1,4-dioxane and discharges the treated groundwater into the wastewater treatment plant effluent. As part of the CAP, a risk-based cleanup level for DXA of 1.2 mg/L was calculated. As described in Section 3.2.4.1, the Novolyte facility has a monitor well network that consists of nine monitoring wells and one recovery well. The most recent Quarterly Report prepared in January 2010, reported groundwater sampling results for August 2009 to October 2009 (Novolyte, 2010). A review of the Quarterly Report indicates that pumping of the recovery well (MW-2A) has drawn the DXA plume south to a point of generally being centered around the recovery well. Due to the fluctuations in collected data and the plume movement, current plans are to maintain the existing remedial activities (Novolyte, 2010). In addition, the concentration of 2-Chlorotoluene has declined considerably since the inception of treatment operations (Novolyte, 2010).

The site is not listed on the EPA's National Priority List, which designates high-priority cleanup sites under the Comprehensive Environmental Response Compensation and Liability Act, more commonly known as the Superfund Program. There are no National Priority List sites within at least 1.5 miles of the site.

3.2.6.2 Environmental Consequences

3.2.6.2.1 No Action Alternative

Under the No Action Alternative, the facility would continue its current operations and would generate the same type and quantity of hazardous and non-hazardous wastes. Wastes would continue to be collected and transported for offsite disposal or recycling in accordance with Federal, State and local regulations. Groundwater recovery and treatment would continue pursuant to the CAP and Louisiana DEQ requirements.

3.2.6.2.2 Proposed Project

Construction

Phase 1 involves the expansion of the existing facility to include new and upgraded processing equipment, two 3,000-gallon above ground process vessels (solvent blend tank, reactor vessel), two 8,000-gallon ASTs to store finished raw material (ethylene carbonate, propylene carbonate. Phase 1 expansion would not be located in areas where historical operations at the property have affected soil and groundwater. The area was the former location for a manufacturing unit. Use of this manufacturing unit was discontinued in 1996, and it was decommissioned and demolished; the existing processing building was constructed in its place. No contamination is known to exist in this area. There are no monitoring wells in the location of the proposed construction. As part of the expansion under Phase 1, some renovation would be required. The existing facility was constructed in 1969; therefore, asbestos-containing material or lead-based paint could be present. If renovations would be performed in an area where asbestos-containing material or lead-based paint is suspected to be present, an assessment for these materials would have to be performed prior to renovations, and if present, properly handled and disposed of. Construction would generate solid waste from removing existing building materials (piping, drywall, etc.). These materials could be landfilled offsite at a permitted solid waste landfill. Solid waste and sanitary waste generated during construction would be limited to common construction-related waste streams. In-state or out-of-state landfills or recycling facilities would have the capability and capacity to accept these wastes.

Phase 2 involves the construction of 60,000 square feet of new production facilities, including five 8,000-gallon ASTs for storage of purified raw materials (ethylene carbonate, propylene carbonate, dimethyl carbonate, diethyl carbonate, and ethyl methyl carbonate), five 8,000-gallon solvent blend ASTs, six new reactors, and stainless steel shipping vessels. Construction of the new facilities would generate common solid waste associated with construction (e.g., scrap wood and metal) as well as pavement and asphalt that currently exists on a small portion of the proposed expansion site. These materials could be landfilled offsite at a permitted solid waste landfill. Solid waste and sanitary waste generated during construction would be limited to common construction-related waste streams. In-state or out-of-state landfills or recycling facilities would have the capability and capacity to accept these wastes.

Construction would not be located in areas where historical operations at the property have affected soil and groundwater. The area for the Phase 2 construction, between the existing warehouse and the north perimeter fence along Irene Road, has never been developed. No contamination is known to exist in this area. There are no monitoring wells in the location of the proposed construction.

Operations

Proposed operations under both Phase 1 and Phase 2 would increase the quantity of raw materials from what is currently used at the facility but would generally include the same types of raw materials presently at the facility. The quantity of hazardous waste generated would increase due to the increase in operations. The facility estimates that 1,224 tpy of solid municipal waste would be generated (Novolyte, 2009a), an increase of approximately 400 tpy from what is currently generated. The handling and storage of non-hazardous waste would be similar to current operations, namely, the waste would be collected in containers, dumpsters, or large cloth bags for offsite disposal or for recycling.

The quantity of hazardous waste generated would increase from approximately 165 tpy to 281 tpy, but would be the same types of wastes as currently generated. Hazardous waste generated would either be reclaimed or recycled offsite or treated and disposed of at a permitted landfill (Novolyte, 2009a). The facility has agreements in place with transport, storage and disposal (TSD) facilities and would likely continue to use these facilities under the Proposed Project. The quantity and type of hazardous waste that would be generated during operations would be accepted by TSD facilities, and therefore, commercially available treatment or disposal would be available. Waste would not be treated or disposed of onsite. The facility currently operates as a large quantity generator of hazardous waste regulated by Federal and State regulations; therefore, an increase of hazardous waste generated could be accommodated through adequate management, accumulation area(s), and collection for offsite disposal.

The new ASTs would contain raw material and finished product and would be contained by diking. Spill containment would also be provided around reactors, blending tanks, transfer pumps and product packaging areas.

The existing facility has an SPCC Plan in place to guide the avoidance, minimization, and response to an accidental release of a material from the facility. This plan would be modified to include the storage, containment and handling of additional liquid materials, including materials stored in the additional ASTs, reducing the potential of a release to the environment during operations to minor.

The facility would likely require modifications to its existing LPDES and SPCC permits; however, no change to the existing CAP would likely be required because no changes would occur that would alter the CAP conditions.

3.2.6.3 Cumulative Impacts

Other than the Phase 1 and Phase 2 of the Proposed Project, no other projects are planned in this area. Therefore, no foreseeable actions in this area have been identified that would interact with either phase of the Proposed Project to generate adverse impacts to solid and hazardous wastes.

3.2.6.4 Proposed Mitigation Measures

Waste materials would be sent offsite for recycling, or treated and disposed of at a hazardous waste disposal facility or landfill. As a large-quantity generator of hazardous waste, the facility is required to have a Preparedness and Prevention Program and a Contingency Plan in accordance with 40 CFR 262.34(a)(4) and provide training to its employees on the safe and proper handling of hazardous waste. These plans and training could be expanded during the planning, construction, and operational phases to include the new facility. The plans would include an evaluation of alternatives to eliminate, reduce, or minimize the amounts of hazardous materials used and hazardous wastes generated and procedures to take in the event of a release.

During construction, preventative measures such as providing fencing around the construction site, establishing contained storage areas, and controlling the flow of construction equipment and personnel would reduce the potential for a release to occur. In the event that a release should occur, immediate action would be taken to contain and clean up a release in accordance with Federal, State, and local regulations. Furthermore, an asbestos survey and lead-based paint survey would be conducted prior to demolition or renovations to the existing facility (Phase 1). If present, these materials would be abated in accordance with Federal and State regulations.

3.2.7 Transportation and Traffic

3.2.7.1 Affected Environment

The Proposed Project is located in an industrial area about 15 miles north of Baton Rouge, Louisiana (see Figure 2.3-1), near the small City of Zachary in a low-population density area. The property is located on West Irene Road, which runs east-west and borders the north edge of the existing Novolyte plant site and proposed expansion. The existing facility is bordered on the east by SR 61 (Samuels Road), which is a major roadway in

this industrial corridor that houses several major chemical and plastic manufacturers. A railroad runs adjacent to the property alongside SR 61, with a spur into the existing Novolyte facility site. Barnett Road intersects SR 61 from the northeast, across from the Novolyte site. The next nearest accessible roads are east-west oriented Highway 64 (Mt. Pleasant-Zachary Road) located approximately 2.2 miles on SR 61 to the north; and Highway 964 (Old Scenic Highway) that meets at a T-junction approximately 2.2 miles on SR 61 to the south. SR 61 joins with Interstate I-10 approximately 5 miles south of the site.

The existing facility currently operates 24 hours a day, seven days a week, with four employee shifts. Approximately 44 people work 9:00 am to 5:00 pm and another 43 employees work the shift schedules (nearly evenly split between the shifts). Currently, 22 trucks per day on average access the existing facility site during normal operations. These trucks are easily accommodated within the existing road and intersection network (Novolyte, 2009a).

3.2.7.2 Environmental Consequences

3.2.7.2.1 No Action Alternative

Under the No Action Alternative, construction and operations would not occur; therefore, no impacts would occur to transportation and traffic within the study area.

3.2.7.2.2 Proposed Project

Construction

Short-term but measurable adverse impacts to traffic are expected during the construction of Phase 1 of the Proposed Project. Phase 1 would involve the expansion of the existing facility by 3,100 square feet (and associated installation of equipment) on previously developed land situated on the south side of West Irene Road. Construction trucks and construction workers' personal vehicles would add to existing local traffic and would potentially cause minor congestion, higher traffic noise, and increased vehicle emission levels along the routes. Approximately 25 to 35 construction workers would be hired to complete the construction during Phase 1, and an average of one truck per every two days would access the site for construction purposes (Novolyte, 2009a). Construction worker traffic would occur primarily at the beginning and ending of each workday. The roads most impacted would be SR 61 and West Irene Road. Construction-related impacts to existing transportation resources would be minor, temporary, and localized (i.e., limited to the proximity of the project site), and would be accommodated through the existing road network.

Short-term but measurable adverse impacts to traffic are expected during the construction of Phase 2 of the Proposed Project. Phase 2 would involve the construction of 60,000 square feet of warehouse, production, and laboratory buildings, as well as associated utility infrastructure, storage facilities, and mechanical equipment. Approximately 60 to 66 construction workers would be hired to complete Phase 2, and approximately four trucks per day would access the site for construction purposes. Construction worker traffic would occur primarily at the beginning and ending of each workday, and construction truck traffic would be sporadic throughout the day, with occasional truckloads arriving with equipment or materials during the course of the project. Similar to Phase 1, construction trucks and construction workers' personal vehicles would add to existing local traffic and would potentially cause minor congestion, higher traffic noise, and increased vehicle emission levels along the routes. Construction-related impacts to existing transportation resources during Phase 2 would be minor, temporary, and localized (i.e., limited to the proximity of the project site), and would be accommodated through the existing road network.

Operations

Phase 1 of the Proposed Project would be expected to result in a slight increase in employee-vehicle and truck traffic in the immediate region of the Novolyte property. After Phase 1 and 2 are operational, Novolyte expects an increase in personal vehicles from the hiring of approximately 18 new employees, and an increase of

approximately six trucks per day accessing the property (Novolyte, 2009a). The additional trucks would use the established truck routes currently in place. The additional vehicles and trucks accessing the site would be easily accommodated within the existing roadway and intersection network.

The operation of both Phase 1 and Phase 2 of Proposed Project would generate a minor long-term increase in personal vehicle traffic due to the hiring of approximately 18 additional permanent employees (Novolyte, 2009a). These new workers would be split among the four operation shifts, thus reducing the number of vehicles accessing the site concurrently, and thereby reducing impact on traffic. Because this Proposed Project is an addition to an existing industrial facility that currently operates production equipment and has existing truck and personal-vehicle traffic, this small increase in vehicle traffic would have only a minor impact to the surrounding community. Phase 1 would have less of an impact on traffic than during operations when both Phases 1 and 2 are operational, as only a portion of the Proposed Project would be operational during Phase 1.

3.2.7.3 Cumulative Impact

Other than Phase 1 and Phase 2 of the Proposed Project, no other projects are planned in this area. Therefore, no foreseeable actions have been identified that would interact with either phase of the Proposed Project to generate cumulative adverse impacts to transportation and traffic in this area.

3.2.7.4 Proposed Mitigation Measures

No mitigation measures would be required for transportation and traffic.

3.2.8 Human Health and Safety

3.2.8.1 Affected Environment

As described in Section 3.2.6 (Solid and Hazardous Wastes), the facility stores large quantities of materials in ASTs and in containers located inside the building, as well as in ASTs in containment areas outdoors. The facility has a Risk Management Plan (RMP) in place that was most recently submitted to the RMP Reporting Center on June 1, 2009. The facility uses and stores six regulated substances: ethyl chloride (74,000 pounds), formaldehyde (60,000 pounds), methyl chloride (220,000 pounds), phosphorus trichloride (88,000 pounds), and 2-methylpropene (50,000 pounds). On its RMP, the facility reported that it has had no reportable accidents in the last five years.

In addition to materials reported on the RMP, several corrosive or toxic powders are handled and stored, including lithium hexafluorophosphate ($LiPF_6$) (corrosive and toxic), lithium bis (oxatlato) borate (toxic), lithium bis-trifluoromethanesulfonimide (toxic), and lithium tetrafluoroborate (corrosive). In addition, several flammable liquids (diethyl carbonate, dimethyl carbonate and ethyl methyl carbonate) are stored and used. The basic manufacturing process involves (1) purification of liquid organic solvents by distillation, (2) blending of liquid organic solvents in an agitated vessel, (3) blending of a solid inorganic powder into the liquid organic solvents, and (4) packaging of the product in returnable stainless steel shipping vessels.

The facility is equipped with a chain-link fence and is manned 24 hours a day. Visitors are required to check in at the main office before entering the plant and must check out when leaving the plant. The facility has emergency response equipment located at the facility and has additional response services provided by Phillip Services and B&B Fire and Safety, if needed (Novolyte, 2007). Novolyte has a safety program that includes operations, employee training, and safe handling of equipment and materials. The facility conducts periodic health assessments and industrial hygiene monitoring to evaluate and minimize the potential for exposure to employees. Employees are provided with and trained in the proper use of personal protective equipment.

3.2.8.2 Environmental Consequences

3.2.8.2.1 No Action Alternative

Under the No Action Alternative, plant construction and operations would not occur; therefore, there would be no change to the potential for impacts on human health and safety at the Novolyte site.

3.2.8.2.2 Proposed Project

Construction

The existing facility is approximately 25 years old, and therefore, there is a potential for asbestos-containing material or lead-based paint to be present in building materials. Expansion of the existing facility would likely require demolition or renovations; therefore, there is a potential for workers to contact asbestos-containing material and lead-based paint, if present. It is anticipated that no impact related to health and safety would occur under Phase 1.

Construction of the new facility under Phase 2 would be on undeveloped land where no structures are present. No areas of contamination are known to exist in this area. No impact related to health and safety would occur under Phase 2.

Operations

Materials to be used and stored at the facility, as described in Section 3.2.6.2 (Solid and Hazardous Wastes), would be similar to what is currently used at the facility. There is a potential for HF (corrosive) to form as a by-product of $LiPF_6$ decomposition; however, this would not be expected to occur during normal operations and personnel would be trained to properly respond should HF form during operations. Generally, HF would be formed in solution in parts per million quantities but would not be generated as a free vapor. The final product would have (in 95 percent of the formulations) less than 16 percent $LiPF_6$. Lab testing has shown that formulations having less than 16 percent $LiPF_6$ are non-corrosive (Novolyte, 2009a).

The basic manufacturing process involves (1) purification of liquid organic solvents by distillation, (2) blending of liquid organic solvents in an agitated vessel, (3) blending of a solid inorganic powder into the liquid organic solvents, and (4) packaging of the product in returnable stainless steel shipping vessels. There are no specific hazards associated with the processing techniques other than those common in working with organic solvents, inorganic powders, and rotating machinery.

Personal protective equipment would be required by employees when handling these materials. Because these materials and resulting wastes would be stored onsite, the potential risk of exposure would be greatest for Novolyte employees, who would be trained in proper safety procedures. The risk of exposure to the general population would be minor and similar to what currently exists. The health and safety risks associated with onsite processes would be addressed in procedures developed to guide the safe handling of materials and wastes. The principal hazards associated with plant operations (exposure from chemical handling and equipment operation) would be contained within buildings and secure areas of the property.

The facility's existing safety plan would be modified to address any new safety hazards and would ensure that appropriate training on proper procedures and safety would be provided to protect workers. With appropriate safety procedures in place and the use of personal protective equipment, the potential for an impact to the health and safety of workers would be minor.

Because critical hourly or daily functions of strategic importance to the national economy are not reliant on plant operations, the Novolyte facility is not considered a potential target for intentional destructive acts. Although the supply of compounds could be interrupted temporarily by a destructive act, the interruption would be relatively brief and would not be expected to have lasting effects on the economy. The plant would be secured against

public access and buffered by distance from residential areas. The potential for impacts of an intentional destructive act on human health and safety would be reduced through implementation of procedures in the Safety Plan.

3.2.8.3 Cumulative Impacts

Other than the Phase 1 and Phase 2 of the Proposed Project, no other projects are planned in this area. Therefore, no foreseeable actions have been identified that would interact with either phase of the Proposed Project to generate cumulative adverse impacts to human health and safety.

3.2.8.4 Proposed Mitigation Measures

During construction, safety measures such as providing fencing around the construction site, establishing contained storage areas, and controlling the movement of construction equipment and personnel would reduce the potential for an accident to occur. Additionally, Section 3.2.1.4 identifies proposed mitigation measures to minimize human health and safety impacts to air quality caused by fugitive dust and tailpipe emissions.

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4.0 REFERENCES

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PHE		
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6.0 DISTRIBUTION LIST

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Appendix A – Agency Consultations

NATIONAL ENERGY TECHNOLOGY LABORATORY
Albany, OR • Morgantown, WV • Pittsburgh, PA

U.S. DEPARTMENT OF ENERGY

December 22, 2009

No known historic properties will be affected by this undertaking. This effect determination could change should new information come to our attention.

Scott Hutcheson 1-28-10
Scott Hutcheson Date
State Historic Preservation Officer

Mr. Scott Hutcheson
State Historic Preservation Officer
Louisiana Office of Cultural Development
P.O. Box 44247
Baton Rouge, LA 70804-44247

SUBJECT: Section 106 Compliance for proposed Electric Drive Vehicle Battery and Component Manufacturing Initiative Project, Novolyte Technologies, Inc., Zachary, LA. Long: -91.23692; Lat: 30.61629

Dear Mr. Hutcheson:

The Department of Energy's (DOE) National Energy Technology Laboratory (NETL) proposes to expand Novolyte Technologies Inc. current manufacturing facility near Baton Rouge, Louisiana in order to meet the growing North American demand for electrolytes as the electric drive vehicle (EDV) systems market develops. The expansion would include increasing capacity and utilization of the existing electrolytes facility, and would also include building a new production building, moving existing equipment into the new facility and adding additional capabilities to meet the forecasted demand. The expansion would consist of the installation of approximately 80,000 square feet of new buildings, bulk chemical storage, materials handling, purification, mixing, reactors and ancillary equipment to produce up to 10,000 tons of electrolyte material.

The project would be located at Novolyte Technologies' Zachary Facility in East Baton Rouge Parish, Louisiana; approximately 15 miles north of Baton Rouge, Louisiana (see attached Location Map). The site is approximately 15 acres and is bounded to the North by West Irene Road; to the east by the existing Novolyte facility; to the south by a City Firing Range used for training; and a fence line and gravel road to the west. Further North is an abandoned industrial site formerly used by BP as a gas sweetening plant; further east are railroad tracks, U.S. 61, a truck yard, and some widely dispersed residential homes; further south is the Baton Rouge City Landfill; and further west is undeveloped land owned by Novolyte Technologies, Inc.

The Area of Potential Effects for historic structures has been determined to be 1/4 mile beyond the project limits. This was determined due to somewhat limited sight distances as a result of surrounding industrial structures to the east and northeast, U.S. 61 and the railroad to the east, and general topography. A review of the National Register of Historic Places (NRIS database) and the Louisiana Cultural Resources Map GIS system revealed none within ½ mile of the project site, well beyond the APE for the project. A field survey confirmed that no structures 50 years or older are present within the APE for the project.

Since there are no historic properties within the APE for architectural resources, DOE has made a finding of No Historic Properties Effected for this undertaking. DOE asks for your concurrence with this finding. Please see the supporting documents attached to this letter for further details on this project.

If you have any questions, I can be reached at 304-285-0256 or by e-mail Jesse.Garcia@NETL.doe.gov

Sincerely,

Jesse P. Garcia

Jesse Garcia, Office of Project Facilitation and Compliance
NETL
3610 Collins Ferry Road
Mail Stop B07
Room 333
Morgantown, WV 26507

NATIONAL ENERGY TECHNOLOGY LABORATORY
Albany, OR • Morgantown, WV • Pittsburgh, PA

U.S. DEPARTMENT OF ENERGY

November 3, 2009

U.S. Fish and Wildlife Service
Lafayette Ecological Services Field Office
646 Cajundome Boulevard, Suite 400
Lafayette, Louisiana 70506-4290

Re: Request for Informal Consultation under Section 7 of the Endangered Species Act

To whom it may concern:

The Department of Energy's (DOE) National Energy Technology Laboratory (NETL) proposes to fund a project under the American Reinvestment and Recovery Act (ARRA). The project would involve the construction and operations of an Electric Drive Vehicle Battery and Component Manufacturing Facility. The proposed project is located in East Baton Rouge Parish, Louisiana, near the Town of Zachary within the existing Novolyte Technologies, Incorporated industrial park (see attached Figure). The proposed project involves the construction and operations of the facility on approximately 15 acres within the existing industrial area. Currently, we are preparing a Draft Environmental Assessment regarding this Proposed Action. DOE is requesting information on any federally listed threatened, endangered, or candidate species, or critical habitat within the vicinity of this project. Please send your response to our contractor:

Robin Griffin
Potomac-Hudson Engineering
7830 Old Georgetown Road, Suite 220
Bethesda, MD 20814
robin.griffin@phe.com

If you have any questions, I can be reached at 412-386-5428 or by e-mail Pierina.Fayish@NETL.DOE.GOV.

Sincerely,

Pierina N. Fayish

Pierina N. Fayish, DOE Project Manager
U. S. Department of Energy
National Energy Technology Laboratory
P. O. Box 10940
Mailstop B922/ M218
Pittsburgh, PA 15236

This project has been reviewed for effects to Federal trust resources under our jurisdiction and currently protected by the Endangered Species Act of 1973 (Act). The project, as proposed,
[X] Will have no effect on those resources
[ ] Is not likely to adversely affect those resources.
This finding fulfills the requirements under Section 7(a)(2) of the Act.

Acting Supervisor
Louisiana Field Office
U.S. Fish and Wildlife Service

Date Nov 18 2009

BOBBY JINDAL
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES
OFFICE OF WILDLIFE

ROBERT J. BARHAM
SECRETARY
JIMMY L. ANTHONY
ASSISTANT SECRETARY

Date	November 20, 2009
Name	Robin Griffin
Company	Potomac-Hudson Engineering
Street Address	7830 Old Georgetown Road, Suite 220
City, State, Zip	Bethesda, MD 20814
Project	National Energy Technology Laboratory Electric Drive Vehicle Battery & Component Manufacturing Facility East Baton Rouge Parish, LA
Project ID	4302009
Invoice Number	09112008

Personnel of the Habitat Section of the Coastal & Non-Game Resources Division have reviewed the preliminary data for the captioned project. After careful review of our database, no impacts to rare, threatened, or endangered species or critical habitats are anticipated for the proposed project. No state or federal parks, wildlife refuges, scenic streams, or wildlife management areas are known at the specified site within Louisiana's boundaries.

The Louisiana Natural Heritage Program (LNHP) has compiled data on rare, endangered, or otherwise significant plant and animal species, plant communities, and other natural features throughout the state of Louisiana. Heritage reports summarize the existing information known at the time of the request regarding the location in question. The quantity and quality of data collected by the LNHP are dependent on the research and observations of many individuals. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Louisiana have not been surveyed. This report does not address the occurrence of wetlands at the site in question. Heritage reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. LNHP requires that this office be acknowledged in all reports as the source of all data provided here. If at any time Heritage tracked species are encountered within the project area, please contact the LNHP Data Manager at 225-765-2643. If you have any questions, or need additional information, please call 225-765-2357.

Sincerely,

for Gary Lester, Coordinator
Natural Heritage Program

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Appendix B – Public Comments on the Draft Environmental Assessment and Responses from Novolyte Technologies, Inc. and the Department of Energy

NATIONAL ENERGY TECHNOLOGY LABORATORY
Albany, OR • Morgantown, WV • Pittsburgh, PA

U.S. DEPARTMENT OF ENERGY

RECEIVED
SEP 27 2010

This project has been reviewed for effects to Federal trust resources under our jurisdiction and currently protected by the Endangered Species Act of 1973 (Act). The project, as proposed,
(X) Will have no effect on these resources
( ) is not likely to adversely affect these resources.
This finding fulfills the requirements under Section 7(a)(2) of the Act.

Acting Supervisor
Louisiana Field Office
U.S. Fish and Wildlife Service

Sept 24 2010
Date

September 15, 2010

Ms. Deborah Fuller
Acting Supervisor
U.S. Fish and Wildlife Service
Lafayette Ecological Services Field Office
646 Cajundome Boulevard, Suite 400
Lafayette, LA 70506-4290

Dear Ms. Fuller,

The U.S. Department of Energy (DOE) invites comments on the enclosed document, Draft Environmental Assessment for the Novolyte *Technologies, Inc. Electric Drive Vehicle Battery and Component Manufacturing Initiative Project, Zachary, Louisiana* (DOE/EA-1719D). The Draft Environmental Assessment (EA) can also be found on DOE's National Energy Technology Laboratory (NETL) website at http://www.netl.doe.gov/publications/others/nepa/ea.html.

DOE prepared the Draft EA in accordance with the Council on Environmental Quality's National Environmental Policy Act (NEPA) implementing regulations (40 CFR Parts 1500-1508) and DOE's NEPA implementing procedures (10 CFR Part 1021). It evaluates the potential environmental impacts of DOE's providing a financial assistance grant under the American Recovery and Reinvestment Act of 2009 to Novolyte Technologies, Inc. (Novolyte) under a cooperative agreement between Novolyte and DOE as part of DOE's Electric Drive Vehicle Battery and Component Manufacturing Initiative. Novolyte's plans are to expand the current manufacturing facility to increase their electrolyte material capacity. The expansion would occur in two phases. Phase 1 would involve a 3,100 square foot expansion of the existing manufacturing facility; Phase 2 would involve the construction of 60,000 square feet of new production facilities. The goal of Phase 1 would be to increase production capacity to 4,500 tons of electrolyte material; and in Phase 2 to increase plant capacity from 4,500 tons to 10,000 tons. After completion of the expansion project, Novolyte's facility would have the capacity to supply enough electrolytes to produce a minimum of 100,000 plug-in hybrid electric vehicle batteries.

On November 20, 2009, you provided a response "After careful review of our database, no impacts to rare, threatened, or endangered species or critical habitats are anticipated from the proposed project. No state or federal parks, wildlife refuges, scenic streams, or wildlife management areas are known at the specified site within Louisiana's boundaries" (letter attached). Since that time, there is some new information which involves a change in the Novolyte project. The project you responded to involved what is now Phase 2 of the Novolyte proposed project. There is now a Phase 1 of the project (addressed in the EA), which involves an expansion of an existing building on previously developed land. DOE requests your review of Phase 1 of the proposed Novolyte project and the EA.

DOE's proposed action is to provide Novolyte with a $20.6 million grant under a cost-sharing arrangement. The total cost of the proposed project to expand Novolyte's current operations to increase capacity and utilization of their existing electrolytes production facility to support anticipated growth in the lithium-ion battery industry would be about $41.2 million.

The Draft EA evaluates the resource areas DOE commonly addresses in EAs and identified no significant adverse environmental impacts from DOE's proposed action or Novolyte's proposed project. The Novolyte's expansion project would support the development of the electric drive vehicle industry in an effort to substantially reduce the United States' consumption of petroleum. The project could result in beneficial impacts to the nation's energy efficiency and the local economy and air quality.

A Notice of Availability will be published in The Advocate on September 5, 2010, to announce the beginning of a 30-day public review and comment period. As stated in the notice, comments should be marked "Novolyte EA Comments" and sent to:

Mr. Jesse Garcia
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
P.O. Box 880
Morgantown, WV 26507-0880
Email: Jesse.Garcia@netl.doe.gov
Facsimile: 1-304-285-4403

Individual names and addresses, including email addresses, received as part of the comment documents normally are considered part of the public record. Persons wishing to withhold names, addresses, or other identifying information from the public record must state this request prominently at the beginning of their comments. DOE will honor this request to the extent allowed by law. All submissions from organizations, businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses will be included in the public record and open to public inspection in their entirety.

The public comment period ends on October 4, 2010. DOE will consider late submissions to the extent practicable.

Sincerely,

Jesse P. Garcia

Jesse Garcia
NEPA Document Manager

Attachment

Comment on Novolyte Technologies, Inc. Electric Drive Vehicle Battery and Component Manufacturing Initiative Project Draft EA from the Louisiana Department of Environmental Quality dated October 4, 2010.

We reviewed the attached Draft Environmental Assessment #1719D and do not have sufficient information to make a determination at this time. Please provide the VOC and NOx emissions calculations and email them to lynn.wilbanks@la.gov. If you have any questions, please call me at 225-219-3233.

Yasoob Zia
Air Assessment

From: Beth Altazan-Dixon
Sent: Thursday, September 09, 2010 10:23 AM
To: Al Hindrichs; John Halk; Laurence Carter; Lynn Wilbanks; Yvonne Wingate Baker
Subject: 100909/1910 Novolyte Electric Drive Vehicle Battery Project

100909/1910	Novolyte Electric Drive Vehicle Battery Project
(on disk)	DOE/ARRA funding
	East Baton Rouge Parish

I have this project packet on my desk for your review if you would like to see it.
It is too large to scan and also includes a CD.

Regards,

Beth Altazan-Dixon
Performance Management
LDEQ/Business and Community Outreach Division
Office of the Secretary
P.O. Box 4301 (602 N. 5th Street)
Baton Rouge, LA 70821-4301
Phone: 225-219-3958
Fx: 225-325-8148
Email: ***beth.dixon@la.gov***

Comments and Responses on the Draft EA for Novolyte Technologies, Inc

Comment Number	Comments on Draft EA	Novolyte Response	DOE Response
1.	**U.S. Fish and Wildlife Service**. This project has been reviewed for effects to Federal trust resources under our jurisdiction and currently protected by the Endangered Species Act of 1973 (Act). The project, as proposed, will have no effect on those resources. This finding fulfills the requirement under Section 7(a)(2) of the Act.	Comment noted.	Comment noted.
2.	**Louisiana Department of Environmental Quality:** "We reviewed the attached Draft Environmental Assessment #1719D and do not have sufficient information to make a determination at this time. Please provide the VOC and NOx emissions calculations and email them to lynn.wilbanks@la.gov. If you have any questions, please call me at 225-219-3233."	**Section 4.7.1 Air Quality and Greenhouses Gases** has been revised in the EA. *Changes are identified in italics and underlined in the EA.* Additionally; calculations for operational phase air emissions were submitted to the Department of Energy and the Louisiana Department of Environmental Quality.	Current and projected operations emissions are addressed in Section 3.2.1.1 and 3.2.1.2.2. Also, as discussed in Section 3.2.1.2.2, Phase 1 construction activities involve demolition activities to expand the existing production facility by approximately 3,100 square feet; and Phase 2 involves construction of 60,000 square feet of new production facilities on 15 acres of undeveloped land. Normal construction equipment (electric, gas, and diesel powered vehicles) will be used intermittently for a duration of approximately up to five years (Phase 1, years 2010-2013 and Phase 2, years, 2014-1015), resulting in intermittently emitting quantities of CO, NO_X, SO_2, PM_{10}, and VOCs. Specific air emissions quantities and details resulting from the construction and operations will be addressed during the permitting process.