



Draft Environmental Assessment

Training and Decontamination Equipment Storage Facility

Chrisman, Illinois

April 2007



FEMA

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1.0 INTRODUCTION

In 1985, Congress passed Public Law 99-145, mandating the destruction of chemical agent hazards such as that found at the Newport Chemical Depot (NECD) in Newport, Indiana, and the seven other chemical storage installations around the country.

The NECD is located approximately two miles south of Newport, Indiana, and approximately ten miles east-northeast of Chrisman, Illinois. The NECD produced the U.S. stockpile of the chemical nerve agent VX. The plant produced approximately 4,400 tons of VX during operations between 1961 and 1968. A two-phase demolition project began in 1998 with completion scheduled for 2007. The facility will destroy 1,269 tons (approximately 4.1%) of the nation's original chemical stockpile using a low-pressure and low-temperature neutralization process, followed by post-treatment at a commercial off-site facility.

In 1988, the U.S. Army and the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) jointly developed the Chemical Stockpile and Emergency Preparedness (CSEP) Program to ensure that communities in the immediate vicinity of the depots are capable of providing maximum protection from chemical agent hazards. A major objective of the CSEP Program is to enhance emergency response efforts aimed at protecting local communities from an accident/incident related to the chemical agents stored at U.S. Army Chemical Depots. The CSEP Program provides off-post preparedness funding and technical assistance for the development and implementation of emergency planning and response, public education, and warning and communications systems to protect the public in areas that could be affected in the event of an accident/incident involving chemical agents like that stored at the NECD.

The Edgar County Emergency Services & Disaster Agency (ESDA) received \$175,000 for the fiscal year 2005 for construction of a Training and Decontamination Equipment Storage (TDES) Facility in Chrisman, Illinois. Funding for construction of the proposed TDES Facility is to be granted by the Illinois Emergency Management Agency (IEMA). IEMA, in coordination with FEMA, determines each community's CSEP Program needs. The TDES Facility would be constructed on a project site that provides adequate space and is strategically located to provide enhanced and cost effective emergency training and services to protect the citizens of Chrisman and those people in the surrounding rural area who live and work in the immediate vicinity of the depot.

In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500 through 1508), and FEMA regulations for NEPA compliance (44 CFR Part 10), FEMA must fully understand and consider the environmental impacts of actions proposed for federal funding. The purpose of this Environmental Assessment (EA) is to document the review and analysis of any potential impacts the proposed TDES Facility would have on the natural and human environment, which fulfills FEMA's responsibilities under NEPA.

2. PURPOSE AND NEED

The City of Chrisman, Illinois, is located approximately ten miles west-southwest of NECD. Citizens residing, working, and conducting day to day activities in the city are within the potential influence of the chemical agent destruction activities at the NECD. Consequently, the City of Chrisman must be able to actively respond in an effective manner to an accident/incident originating from that operation. At present, the City does not have adequate storage for emergency decontamination equipment, and the existing fire station is too small to host emergency response personnel training. Therefore, there is a need for a TDES Facility to provide the necessary decontamination equipment storage space and classrooms for emergency personnel training, which are essential elements of the overall plan for responding to an accident/incident at the NCED.

3. ALTERNATIVES

The following three alternatives were evaluated to address the purpose and need stated in Section 2 above: Alternative 1 – No Action; Alternative 2 – TDES Facility construction on the property along the 100 block of West Monroe Avenue (Proposed Action); and Alternative 3 – TDES Facility construction at 104 West Madison Avenue (Action Alternative).

Alternative 1 – No Action

Under the No Action alternative, FEMA would not provide funding to Edgar County ESDA for the development of the TDES Facility. As a result, the City of Chrisman would not have an adequate training facility or decontamination equipment storage to be able to effectively respond to an accident/incident originating from the NECD.

Alternative 2 – Proposed Action

Under the Proposed Action, the TDES Facility would be constructed on the property along the northeast corner of the 100 block of West Monroe Avenue (see Appendix A, Fig. 3). The TDES Facility would combine the training functions of the police, emergency management, First Responders and Emergency Medical Service (EMS) personnel, and will provide the necessary decontamination equipment storage space and classrooms for emergency personnel training. Certain First Responder and hazardous material(s) (HAZMAT) vehicles would also be housed at the TDES Facility. Proper decontamination procedures call for decontamination and cleaning procedures to take place at the incident site. Therefore, no hazardous materials are expected to be treated, stored, or disposed of at the TDES facility. The Proposed Action site is located one block south of the Action Alternative site.

The property located along the northeast corner of the 100 block of West Monroe Avenue was previously owned by Mooney Motors, Inc. During Mooney Motors' ownership of the property, it was operated as a used car lot. A query conducted by Environmental Data Resources, Inc. (EDR) identified Mooney Motors on the Resource Conservation and Recovery Information System (RCRIS) database as a Small Quantity Generator (SQG) (see Appendix F). Identification of Mooney Motors as a SQG prompted a Freedom of Information Act (FOIA) request for additional information from the Illinois EPA regarding

historical on-site waste handling activities. The information provided in response to the FOIA request revealed documentation showing the one-time removal of RCRA wastes from the site (Appendix C. Fig. 3).

At present, the Proposed Action site is owned by the Chrisman Fire Protection District (CFPD). It is located southwest of the intersection of Monroe Avenue and Indiana Street. The Proposed Action site is a vacant lot that measures approximately 150 feet by 150 feet, or approximately 0.52 acres of land. The western two-thirds of the land surface of the Proposed Action site is gravel, and the remaining land surface is asphalt. . The Proposed Action site is not zoned. Photographs of the Proposed Action site are included in Appendix G.

Under the Proposed Action, the TDES Facility would occupy 2,592 square feet, with the remainder of the site used for parking. The new four-bay metal building would measure 36 feet by 72 feet and be constructed to house equipment and provide training classrooms. The proposed TDES Facility will contain four shop bays, two offices, one restroom, one utility room, and a classroom (Appendix A, Fig. 5). The new facility will provide adequate secure space for administration and emergency training that does not now exist at the current fire or police stations. The TDES Facility is proposed to be constructed on a six-inch-thick concrete slab with 32-inch-deep by eight-inch-wide footings. All framing of the TDES Facility (i.e., laminated, splashboard, framing roof purlins, roof trusses, and bracing) will be comprised of #2 or better yellow pine. Siding, roofing, and interior walls and ceiling of the TDES Facility will be constructed of 29 gauge, grade 80 or better structural steel. Because the proposed site is relatively flat, the grading necessary for site preparation would be minimal. Site preparation would also include the installation of necessary utilities to connect the site to the city's existing utility lines. Construction of the TDES Facility would be in accordance with current International Building Code (IBC) standards and the structural design will incorporate the provisions for seismic stability as recommended by FEMA.

Upon completion of destruction of the chemical stockpile at the NECD, the proposed TDES Facility would continue to be used for housing emergency response equipment and as a training facility for emergency response personnel.

Alternative 3 – Action Alternative

Under the Action Alternative, the TDES Facility would be constructed at 104 West Madison Avenue (see Appendix A, Fig. 3). The TDES Facility would combine the training functions of the police, emergency management, First Responders and Emergency Medical Service (EMS) personnel. and will provide the necessary decontamination equipment storage space and classrooms for emergency personnel training. Certain First Responder and HAZMAT vehicles would also be housed at the TDES Facility. Proper decontamination procedures call for decontamination and cleaning procedures to take place at the incident site. Therefore, no hazardous materials are expected to be treated, stored, or disposed of at the TDES facility.

The Action Alternative site is located immediately northwest of the intersection of Madison Avenue and Indiana Street, and measures approximately 70 feet by 110 feet, or approximately 0.177 acres of land. The land surface is a mixture of concrete, asphalt, and gravel with little vegetation. The site is not zoned and is presently occupied by a one-story

cinderblock building. The Action Alternative site is located one block north of the Proposed Action site. Photographs of the Action Alternative site are provided in Appendix G.

The existing one-story cinderblock building does not provide adequate storage for emergency decontamination equipment and the existing fire station is too small to host emergency response personnel training. The building is currently used for storage and maintenance of the CFPD's emergency response vehicles and equipment. According to Mr. Duane Fidler, the CFPD Fire Chief, the building was constructed in the 1950s. During the mid-1960s it was operated as a filling station and as a meat market in the mid-1970s, closing in 1979. The CFPD has owned the property since July 5, 2001. Under the Action Alternative, construction of the proposed TDES Facility will require demolition of the existing building.

Under the Action Alternative, the proposed TDES Facility would measure 36 feet by 72 feet and contain four shop bays, two offices, one restroom, one utility room, and a classroom (see Appendix A, Fig. 5). The new facility will provide adequate secure space for emergency training and the storage of decontamination equipment that does not now exist at the current fire or police stations. The TDES Facility is proposed to be constructed on a six-inch-thick concrete slab with 32-inch-deep by eight-inch-wide footings. All framing of the TDES Facility (i.e., laminated, splashboard, framing roof purlins, roof trusses, and bracing) will be comprised of #2 or better yellow pine. Siding, roofing, and interior walls and ceiling of the TDES Facility will be constructed of 29 gauge grade 80 or better structural steel. Project site preparation would include removal of the existing building, minimal grading of the relatively flat land surface, and the installation of necessary utilities to connect the site to the city's existing utility lines. In addition, site preparation activities would include removal of underground gasoline storage tanks (USTs) and characterization of environmental impacts and possibly soil and/or groundwater remediation should it be found that a release has occurred. Construction of the TDES Facility would be in accordance with current IBC standards and the structural design will incorporate the provisions for seismic stability as recommended by FEMA.

Upon completion of destruction of the chemical stockpile at the NECD, the proposed TDES Facility will continue to be used for housing emergency response equipment and as a training facility for emergency response personnel.

4.0 AFFECTED ENVIRONMENT AND IMPACTS

The following table summarizes the potential impacts of the Proposed Action and the Action Alternative, and identifies conditions or mitigation measures to minimize those impacts. Following the summary table, any areas where potential impacts were identified will be treated in greater detail.

Affected Environment	Alternative	Impacts	Mitigation
Seismicity	Proposed Action		IBC standards required.
Seismicity	Action Alternative		IBC standards required.
Soils	Proposed Action	Building construction would cause some disturbance, but effects to soils would be minor and temporary in nature.	Silt fence and/or other storm water quality BMPs will be utilized during construction.
Soils	Action Alternative	Building construction would cause some disturbance, but effects to soils would be minor and temporary in nature.	Silt fence and/or other storm water quality BMPs will be utilized during construction.
Water Resources and Water Quality	Proposed Action		Silt fences and gravel will be implemented to prevent sediment issues.
Water Resources and Water Quality	Action Alternative		Silt fences and gravel will be implemented to prevent sediment issues.
Floodplain Management	Proposed Action	No effects anticipated.	
Floodplain Management	Action Alternative	No effects anticipated.	
Air Quality	Proposed Action	Construction equipment may temporarily affect air quality, but no long-term impacts are anticipated.	Measures to limit emission of fugitive dust, such as watering down construction areas.
Air Quality	Action Alternative	Prior to demolition, a licensed professional must remove and dispose of ACM present in the existing building; heavy equipment may temporarily affect air quality, but no long-term impacts are anticipated.	Measures to limit emission of fugitive dust, such as watering down construction areas
Wetlands	Proposed Action	No effects anticipated.	
Wetlands	Action Alternative	No effects anticipated.	
Threatened and Endangered Species	Proposed Action	No effects anticipated.	
Threatened and Endangered Species	Action Alternative	No effects anticipated.	
Hazardous Materials	Proposed Action	Site is classified as a SQG, but no impacts to hazardous wastes are anticipated.	

Affected Environment	Alternative	Impacts	Mitigation
Hazardous Materials	Action Alternative	The existing building may contain asbestos and lead paint; 2 gasoline USTs may be present.	State and local mandated procedures for handling these materials will be followed.
Zoning and Land Use	Proposed Action	No effects anticipated.	
Zoning and Land Use	Action Alternative	No effects anticipated.	
Noise	Proposed Action	Construction activities may temporarily increase noise levels, but no long-term effects are anticipated.	
Noise	Action Alternative	Demolition and construction activities may temporarily increase noise levels, but no long-term effects are anticipated.	
Public Services and Utilities	Proposed Action	Temporary sewer and water service interruption may occur.	
Public Services and Utilities	Action Alternative	Temporary sewer and water service interruption may occur.	
Traffic and Circulation	Proposed Action	Construction activities may temporarily increase traffic, but no long-term effects on traffic are anticipated.	
Environmental Justice	Proposed Action	No effects anticipated.	
Environmental Justice	Action Alternative	No effects anticipated.	
Safety and Security	Proposed Action		OSHA & IBC standards required.
Safety and Security	Action Alternative		OSHA & IBC standards required; State and local procedures for handling hazardous materials will be followed.
Cultural Resources	Proposed Action	No effects anticipated.	If historic or archaeological materials are discovered during construction, all ground-disturbing activities shall cease and FEMA and IHPA shall be notified.

Affected Environment	Alternative	Impacts	Mitigation
Cultural Resources	Action Alternative	No effects anticipated.	If historic or archaeological materials are discovered during demolition or construction, all ground-disturbing activities shall cease and FEMA and IHPA shall be notified.

Geology, Seismicity and Soils

The project area is located in Edgar County, which is situated in east central Illinois. A discussion of the local and regional geology, seismicity, and soil types is provided in the following sections. Based upon a review of the U.S. Geological Survey (USGS) 1966 Chrisman 7.5 minute series topographic quadrangle, the ground elevation in the project area is approximately 649 feet above mean sea level National Geodetic Vertical Datum (NGVD) 1926. This is in general agreement with EDR's reported ground elevation for locations within the immediate vicinity of the Proposed Action and Action Alternative sites, which are 638 to 675 feet above mean sea NGVD 1927 (see Appendix F).

Seismicity

The Wabash Valley Fault System extends across southeastern Illinois, southwestern Indiana, and an adjacent corner of Kentucky, and is the nearest geological features in the region that may affect the project area. The Wabash Valley Seismic Zone is a buried fault system. The area of seismicity of this zone is located in Southwestern Indiana and in Southeastern Illinois. According to the Central United States Earthquake Consortium and Federal and State seismologists and geologists, the Wabash Valley Seismic Zone is capable of producing large and damaging earthquakes at virtually any time (Hill 2002).

Executive Order 12699 (Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction) requires "the development and promulgation of specifications, building standards, design criteria, and construction practices to achieve appropriate earthquake resistance for new...structures."

The basic structural and seismic-resisting system proposed for the TDES Facility is categorized as "Light Framed Wall w/Shear Panels." The proposed facility is considered to be in the Group III Seismic Hazard Exposure Group. The soils at the site are characteristic of Site Class D soils. The seismic base shear value calculated for the proposed project is 3596 lbs. The 5-percent-damped, spectral response acceleration parameter at a short period (0.2 second) (S_{DS}) has a spectral response coefficient of 0.33 g. The 5-percent-damped, spectral response acceleration parameter at a period of one second (S_{D1}) has a spectral response coefficient of 0.22 g.

CFPD shall prepare an earthquake drill/emergency procedures plan in the event that an earthquake occurs during hours when the building is occupied. Review of these drills shall be conducted on a semi-annual basis with the staff of CFPD.

Discussion of Alternatives

Alternative 1 – No Action: Under the No Action alternative, seismicity would not be affected.

Alternative 2 – Proposed Action: Under the Proposed Action, construction of the TDES Facility will be in accordance with the current IBC standards and the structural design will incorporate the provisions for seismic stability as recommended by FEMA. Interior furnishings and equipment will be adequately secured, restrained, and/or stored against seismic movement to help project building personnel from injury during a seismic event.

Alternative 3 – Action Alternative: Under the Action Alternative, construction of the TDES Facility will be in accordance with the current IBC standards and the structural design will incorporate the provisions for seismic stability as recommended by FEMA. Interior furnishings and equipment will be adequately secured, restrained, and/or stored against seismic movement to help project building personnel from injury during a seismic event.

Geology

The project area is located within the Bloomington Ridged Plain of the Wisconsin Till Plains Section of the Central Lowland physiographic province. The landform in the intermorainal area upon which the project area is located is characterized by a nearly level to gently sloping ground moraine, except where major creeks have incised the ground moraine.

The stratigraphy of the project area includes modern soils overlying Quaternary age till deposits of the Wedron Formation which directly overlie Kansan Stage sediments resting on Aftonian Stage sediments. The unconsolidated deposits directly overlie Pennsylvanian aged bedrock of the McLeansboro Group Modesto Formation. The contact between the Pennsylvanian aged bedrock and the overlying less well indurated Wisconsinan till represents an unconformity of approximately 290,000,000 years (Willman, et al 1975).

Structurally, the project area is located near the axis of the Marshall-Sidell Syncline which is on the east flank of the LaSalle Anticlinal Belt and on the northern edge of the Wabash River Basin. The La Salle Anticlinal Belt is the most prominent anticlinal feature in the Illinois Basin. It is a complex structure of en echelon folds, asymmetrical anticlines and monoclines (Swann 2006).

Soils and Farmland

The Soil Survey of Edgar County indicates that the project area occurs within the Dana-Drummer-Raub Soil Association. In general, these soils consist of nearly level to gently sloping, poorly drained to moderately well drained soils that formed in loess and the underlying till or in loess and the underlying outwash on end moraines. The mapped soil in the project area is the moderately well drained, moderately slow permeability Dana silt loam

(56B), on two- to five-percent slopes. Because of its soil composition, the Dana silt loam is classified as Prime Farmland in undeveloped areas. However, both the Proposed Action and the Action Alternative sites are situated within a developed urban setting, and therefore the Prime Farmland designation would not apply to either site.

The Farmland Protection Policy Act (FPPA) requires federal agencies to minimize the extent to which federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses. The project area is depicted on the Natural Resources Conservation Service (NRCS) soil map provided in Appendix A, Fig. 7. The Illinois Department of Agriculture (IDOA) reviewed the proposed project for its potential impact to agricultural land and to determine its compliance with the Illinois Farmland Preservation Act (IFPA) and the federal FPPA. In a letter dated December 6, 2005, IDOA stated that the project complies with the IFPA, and subsequently the federal FPPA, because it is located within the City of Chrisman corporate boundaries. The IDOA response is provided in Appendix C, Fig. 1.

Discussion of Alternatives

Alternative 1 – No Action: Under the No Action alternative, geology and soils would not be affected.

Alternative 2 – Proposed Action: Under the Proposed Action, construction of the TDES Facility would cause some disturbance of the geology and soils as part of the project site preparation work. Since the site is relatively flat, the grading needed at the site would be minor. Exposed soils could be subject to erosion, therefore, a silt fence and/or other storm water quality best management practices would be utilized during construction. The Proposed Action would require an excavation depth of approximately 32 inches below grade. The soils will be used within the Proposed Action site for filling and grading. Stockpiling of the topsoil or fill soil will be limited during construction and all disturbed areas will be graveled at completion. In general, the effects to geology and soils would be minor and temporary in nature.

Alternative 3 – Action Alternative: Under the Action Alternative, construction of the TDES Facility would cause some disturbance of the geology and soils as part of the project site preparation work. Since the site is relatively flat, the grading needed at the site would be minor. Exposed soils could be subject to erosion, therefore, a silt fence and/or other storm water quality best management practices would be utilized during construction. The Proposed Action would require an excavation depth of approximately 32 inches below grade. The soils will be used within the Action Alternative site for filling and grading. Stockpiling of the topsoil or fill soil will be limited during construction and all disturbed areas will be graveled at completion. In general, the effects to geology and soils would be minor and temporary in nature.

Waters of the U.S. including Wetlands

The U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged or filled material into waters of the U.S., including wetlands, pursuant to Section 404 of the Clean

Water Act. Additionally, Executive Order 11990 (Protection of the Wetlands) requires federal agencies to avoid, to the extent possible, adverse impacts of wetlands.

The project area was visited on November 7, 2005, and September 25, 2006 by Andrews Engineering staff. The Proposed Action site and Action Alternative site are both relatively flat and covered in concrete, gravel, and asphalt. There is little to no vegetation present at either site. There are no rivers, creeks, or other defined drainages in the project area. Storm water runoff from both the Proposed Action site and the Action Alternative site would flow to the stormwater collection sewers on the adjacent roadways.

The City of Chrisman is located in the northern part of Edgar County on the drainage area of Brouilletts Creek, a tributary of the Wabash River, which is located in the Middle Wabash-Busserron watershed (USGS Cataloging Unit: 05120111). The nearest surface water body is the North Fork Brouilletts Creek located approximately 0.25 miles north-northeast of the project site. Stormwater runoff from the area may be received by intermediate streams that flow into the North Fork Brouilletts Creek.

The National Wetland Inventory for Chrisman, Illinois, was referenced using the Wetlands Mapper available on the U.S. Fish and Wildlife website (<http://wetlandsfws.er.usgs.gov>). The National Wetland Inventory identifies three wetlands within the project area. Specifically, there are two freshwater ponds (PUBGH) and one freshwater forested/shrub wetland (PF01A). These wetlands areas are approximately one-half mile north of the Proposed Action and Action Alternative sites (see Appendix A, Fig. 9).

An EDR NEPACheck report was requested for the project area. The EDR NEPACheck report provides information which may be used to help determine whether a site will have the potential to cause environmental impact, as defined by NEPA. The EDR NEPACheck report concurs with the delineated wetlands on the National Wetlands Inventory Map (see EDR NEPACheck in Appendix E).

The USACE was contacted regarding the proposed project under the Clean Water Act. In a response letter dated November 7, 2006 (Appendix C, Fig. 2), the USACE determined that no wetland or waters of the U.S. would be impacted by the proposed project, and that a Department of Army, Section 404 permit is not required for a five-year period.

The IEPA was contacted to determine if any state requirements would apply under the Clean Water Act. In a letter dated January 13, 2006 (Appendix C, Fig. 3), the IEPA stated they had no concerns about the proposed project.

The Illinois Department of Natural Resources stated in a Consultation Agency Action Report response dated December 21, 2005, that no state protected resources or state wetlands will be affected by the proposed project (Appendix C, Fig. 5).

Discussion of Alternatives

Alternative 1 – No Action: Under the No Action alternative, the existing water resources would not be altered. No impacts to surface water, ground water, or wetlands would occur.

Alternative 2 – Proposed Action: The Proposed Action will have little or no effect on water resources or water quality. There are no wetlands on the Proposed Action property. Construction of the proposed TDES Facility will result in the alteration of the existing topography only in the immediate vicinity of the TDES Facility, the parking area, and access drive. Therefore, no impacts to any wetland area are expected. Mitigation measures will be implemented as needed, such as silt fences, straw bales, and seeding.

Preparation of the site for construction of the TDES Facility will involve limited clearing and placement of footers below the frost-line. The parking area and access drive will involve minimal clearing and construction of a gravel access road. Any impacts will be short-term and occur during construction as a result of limited disturbance of subsurface materials and potential erosion of the disturbed areas during precipitation events. Long-term, post-closure impacts that might occur during operation and maintenance include additional site erosion. However, these impacts are not likely to be significant because disturbed areas will either be revegetated or graveled, and drainage improvements maintained.

Alternative 3 – Action Alternative: The Action Alternative will have little or no effect on water resources or water quality. There are no wetlands on the Action Alternative property. Construction of the proposed TDES Facility will result in the alteration of the existing topography only in the immediate vicinity of the TDES Facility, the parking area, and access drive. Therefore, no impacts to any wetland area are expected. Mitigation measures will be implemented as needed, such as silt fences, straw bales, and seeding.

Preparation of the site for construction of the TDES Facility will involve limited clearing and placement of footers below the frost-line. The parking area and access drive will involve minimal clearing and construction of a gravel access road. Any impacts will be short-term and occur during construction as a result of limited disturbance of subsurface materials and potential erosion of the disturbed areas during precipitation events. Long-term, post-closure impacts that might occur during operation and maintenance include additional site erosion. However, these impacts are not likely to be significant because disturbed areas will either be revegetated or graveled, and drainage improvements maintained.

Floodplains

Executive Order 11988 (Floodplain Management) requires federal agencies to avoid, to the extent possible, actions within or affecting floodplain, and prohibits federal agencies from funding construction in the 100-year floodplain, unless there are no practicable alternatives. The project area for the proposed TDES facility has not been mapped on a FEMA Flood Insurance Rate Map (FIRM). According to the Digital FIRM (see Appendix A, Fig. 8) available from <http://www.hazardmaps.net>, the project area has been designated Flood Zone

X. Zone X is one of multiple zones in the 100-year floodplain. Additionally, soil survey information indicates that the native soil types are not floodplain soils.

The nearest surface water body is the North Fork Brouilletts Creek located approximately 0.25 miles north-northeast of the project site. In the City of Chrisman's 134-year history, there has never been a serious flood event.

Discussion of Alternatives

Alternative 1 – No Action: Under the No Action alternative, no construction would occur and there would be no impact to a floodplain.

Alternative 2 – Proposed Action: The Proposed Action is not located in a floodplain and would not affect any floodplain. Disturbance of the site will be limited to the immediate area in which the TDES Facility will be constructed and the surrounding parking area and access drive. Mitigation measures will be implemented as needed, such as silt fences, straw bales, and seeding.

Alternative 3 – Action Alternative: The Action Alternative is not located in a floodplain and would not affect any floodplain. Disturbance of the site will be limited to the immediate area in which the TDES Facility will be constructed and the surrounding parking area and access drive. Mitigation measures will be implemented as needed, such as silt fences, straw bales, and seeding.

Air Quality

The Clean Air Act requires states to adopt ambient air quality standards, which have been established to protect the public from potentially harmful amounts of pollutants. The EPA has established National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. There are two types of national air quality standards. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly; secondary standards set limits to protect public welfare, including protection against visibility, damage to animals, crops, vegetation and buildings. The current six criteria pollutants are Carbon Monoxide (CO), Nitrogen Dioxide (NO₂), Ozone (O₃), Lead (Pb), Particulate Matter with a diameter less than or equal to 10 micrometers (PM₁₀), and Sulfur Dioxide (SO₂).

The IEPA was contacted to determine if any state requirements would apply under the Clean Air Act. In a letter dated January 13, 2006 (Appendix C, Fig. 3), the IEPA stated they had no concerns about the proposed project.

Discussion of Alternatives

Alternative 1 – No Action: Under the No Action alternative, there would be no impacts to air quality.

Alternative 2 – Proposed Action: Under the Proposed Action, emissions from heavy equipment utilized during the construction phase of the TDES Facility may temporarily increase the levels of some pollutants, such as carbon monoxide and particulate matter. These potential increases will be short-term and are not expected to have significant impacts on the ambient air quality. Measures to limit emission of fugitive dust will be used, such as watering down construction areas.

Alternative 3 – Action Alternative: The Action Alternative involves the demolition of the existing one-story cinderblock building. Asbestos sampling and analysis would be necessary to determine if asbestos containing materials (ACM) are present in the existing building in the form of floor coverings, pipe insulation, boiler insulation, and/or wall board. ACM is regulated under National Emission Standards for Hazardous Air Pollutants (NESHAP) and may consist of friable or non-friable ACM. Demolition activities may cause ACM to become airborne. Once the ACM has been removed by a licensed professional, building demolition will commence.

Upon the completion of demolition activities, emissions from heavy equipment during construction activities may temporarily increase the levels of some pollutants such as carbon monoxide and particulate matter. These potential increases will be short-term and are not expected to have significant impacts on the ambient air quality. Measures to limit emission of fugitive dust will be used, such as watering down construction areas.

Threatened and Endangered Species

Both the Proposed Project site and Action Alternative site are located within the downtown area of the City of Chrisman (Appendix A, Fig. 4). These sites have historically been used for commercial purposes. The Proposed Action site is presently a vacant lot. The Action Alternative site is currently used to store and maintain CFPD fire equipment and vehicles. Both the Proposed Action and Action Alternative sites have very little vegetative groundcover and are comprised primarily of gravel, asphalt, and concrete. No surface waters are present. Consequently, both sites have limited value for plant and wildlife species. Wildlife habitat will not be altered by construction at either site.

In accordance with Section 7 of the Endangered Species Act (ESA) of 1973, the project area was evaluated for the potential occurrence of federally listed threatened and endangered species. The ESA requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of any endangered or threatened plant or animal species or result in the destruction or adverse modification of designated critical habitats (FEMA 1996).

The U.S. Fish and Wildlife Service (USFWS) was contacted regarding the environmental review for the proposed project. The USFWS indicated in a letter dated December 22, 2005, that the Indiana Bat (*Myotis sodalists*) is an endangered species with a range that includes the project area (Appendix C, Fig. 4). The EDR NEPA Check report concurs with the USFWS findings regarding the project being within the range of the Indiana Bat (see EDR NEPA Check in Appendix E).

The USFWS also concluded that “there is no designated critical habitat in the project area at this time,” and there was a lack of favorable habitat (i.e., caves, mines, small stream corridors with well developed riparian woods, and upland and bottomland forests) observed in the project area during the November 7, 2005, and September 26, 2006 site visits. Therefore, the proposed project is not anticipated to affect the listed species, and no further consultation and/or coordination with the USFWS is required.

Discussion of Alternatives

Alternative 1 – No Action: The No Action alternative would not disturb natural areas and would not adversely affect threatened and endangered species.

Alternative 2 – Proposed Action: The Proposed Action site is a vacant lot. Under the Proposed Action there are no expected long or short-term impacts to threatened or endangered species. The proposed project will not affect the identified endangered species (Indiana Bat).

Alternative 3 – Action Alternative: The Action Alternative site is a developed commercial business parcel. There are no expected long or short-term impacts to threatened or endangered species as a result of this alternative. The proposed project will not affect the identified endangered species (Indiana Bat).

Hazardous Materials

The Proposed Action and Action Alternative sites are located in the downtown/business area of the City of Chrisman. A reconnaissance survey revealed the possibility for the presence of hazardous materials at the Action Alternative site.

On November 7, 2005, and September 26, 2006, site visits were conducted to evaluate the presence or likelihood of the presence of hazardous materials and wastes in the project area. The Proposed Action site is a vacant lot. No evidence of the treatment, storage, or disposal of hazardous or non-hazardous waste material was encountered during the site visit. The Action Alternative site visit, in contrast, revealed the presence of a small quantity of various cleaning and vehicle maintenance supplies, the possible presence of lead paint, ACM, and the possible presence of two USTs.

According to Chief Fidler of the CFPD, the Action Alternative site was formerly a filling station and later a meat market. Activities from the former filling station may have environmental impacts. Two UST vent pipes daylighting and extending up the west end of the south side of the building and the concrete around the former pump island are evidence of the former filling station. There is a sump in the main garage area located on the north end of the building, and there are oil stains at various locations throughout the building that are consistent with the maintenance of vehicular equipment. In addition, there are concerns that lead paint may be present on the building walls and trim, and that ACM may be present in the insulation on the heater in the main garage area..

A hazardous materials database search was conducted by EDR to identify any potential hazards within the project area. The EDR Radius Map with GeoCheck report was conducted to meet the government records search requirements of American Society for Testing Materials (ASTM) Standard Practices for Environmental Site Assessments, E 1527-00. Search distances were per ASTM standard. The databases included in EDR's search included the Federal ASTM Standard, State ASTM Standard, Federal ASTM Supplemental, State or Local ASTM Supplemental, EDR Proprietary Historical Databases, and Brownfield Databases (see Appendix F, EDR Radius Map with GeoCheck).

The EDR query found the Proposed Action site listed on the Resource Conservation and Recovery Act Information System (RCRIS) Small Quantity Generator (SQG) database. A property classified as a SQG is a site that manufactures less than 100 kg of hazardous waste or less than 1 kg of acutely hazardous waste per month. The EDR database indicates that there were "No violations found" regarding the handling of Resource Conservation and Recovery Act (RCRA) wastes at the Proposed Action site. The Action Alternative site was not identified in any of the databases searched by EDR.

In addition to the Proposed Action site, there were seven other nearby sites for which information was provided in the databases searched by EDR. There was one RCRA Large Quantity Generator (LQG), one Leaking Underground Storage Tank (LUST) site, and four UST sites (see Appendix F, EDR Radius Map with GeoCheck).

The Illinois EPA's FOIA Section was contacted for information on the Proposed Action and the Action Alternative sites. The IEPA's FOIA Section provided information for Mooney Motors, Inc., the former occupant of the Proposed Action site, indicating the one-time removal of RCRA wastes. No reportable information was available for the Action Alternative site. Furthermore, the IEPA indicated in a letter dated January 13, 2006, that they have no concerns regarding the proposed activities (Appendix C, Fig. 4).

Discussion of Alternatives

Alternative 1 – No Action: Under the No Action alternative, no impacts resulting from hazardous materials are anticipated.

Alternative 2 – Proposed Action: The Proposed Action site was identified in the RCRIS database as a SQG, but there were "No violations found" regarding the handling of RCRA wastes at the site. Therefore, no subsurface hazardous materials are anticipated to be present at the Proposed Action site.

Alternative 3 – Action Alternative: Under the Action Alternative, the existing cinderblock building will be demolished and the land surface will be graded. These activities may require asbestos and lead inspections by licensed professionals, and subsequent removal and abatement, as detailed in the following paragraphs. Any hazardous materials discovered, generated, or used during the implementation of the proposed project, or demolition of the existing building, shall be disposed of and handled in accordance with applicable local, state, and federal regulations.

USTs containing gasoline may be present on the Action Alternative site. There are no records reporting the removal of USTs from the property. Consequently, the subsurface may be impacted by hazardous materials, and excavation activities could expose or otherwise affect subsurface hazardous wastes or materials. If any UST(s) are encountered, they will be removed and disposed of in accordance with all applicable local, state, and federal regulations.

It is suspected that asbestos is present in the existing building in the form of pipe insulation, which could become airborne during demolition activities. Therefore, ACM will be removed by a licensed professional before building demolition can commence.

Traffic and Circulation

The Proposed Action site is bordered by Monroe Avenue to the north, by Indiana Street to the east, and by an alley to the south and west. Access to the TDES Facility under this alternative would be via Monroe Avenue or Indiana Street (Appendix A, Fig. 4). Monroe Avenue and Indiana Street are two-lane roads. Both roads are maintained by the City of Chrisman.

The Action Alternative site is bordered by Madison Avenue on the south and Indiana Street to the east. Access to the TDES Facility under this alternative would be via Madison Avenue or Indiana Street (Appendix A, Fig. 4). Madison Avenue is a two-lane road and Indiana Street is a two-lane road. Both roads are maintained by the City of Chrisman.

A tow vehicle (pickup truck), a decontamination trailer, and a tanker will be stored at the TDES Facility. These vehicles will be deployed from the TDES Facility in the event of an incident/accident at the NECD. Therefore, any resultant increase in traffic at either site will be limited to the deployment and return of these vehicles.

Discussion of Alternatives

Alternative 1 – No Action: Under the No Action alternative, there will be no impacts to traffic.

Alternative 2 – Proposed Action: Under the Proposed Action, short-term impacts to traffic on Monroe Avenue and Indiana Street are anticipated during the construction period. No long-term impacts to traffic are anticipated..

Alternative 3 – Action Alternative: Under the Action Alternative, short-term impacts to traffic on Madison Avenue and Indiana Street are anticipated during the demolition and construction phases of the project. No long-term impacts to traffic are anticipated

Environmental Justice (Executive Order 12898)

Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) mandates that federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations.

Discussion of Alternatives

Alternative 1 – No Action: The No Action alternative would not have a disproportionately high or adverse impact on the minority or low-income populations of the community.

Alternative 2 – Proposed Action: The Proposed Action alternative would not have a disproportionately high or adverse impact on the minority or low-income populations of the community.

Alternative 3 – Action Alternative: The Action Alternative would not have a disproportionately high or adverse impact on the minority or low-income populations of the community.

Safety and Security

Under the Proposed Action and Action Alternative, no hazardous or contaminated materials are expected to be treated, stored, or disposed of at the TDES Facility. Proper decontamination procedures call for on-site (i.e. location of accident/incident response activities) decontamination of all vehicles and equipment.

The Action Alternative site is suspected of containing ACM and gasoline USTs. Should this alternative be implemented, the health and safety of local residents, the public-at-large, and the protection of personnel involved in activities related to the investigation, removal, and disposal of the ACM and USTs shall be addressed by ensuring that a facility health and safety plan is prepared and followed and that site security is implemented.

Cultural Resources

Consideration of the impacts of Federally-funded actions on cultural resources is mandated under Section 106 of the National Historic Preservation Act (NHPA), as amended, and implemented by 36 CFR Part 800. Requirements include identification of significant historic properties that may be impacted by the Proposed Action. Historic properties are defined as archaeological sites, standing structures, or other historic resources listed in or eligible for listing in the National Register of Historic Places (NRHP) (36 CFR 60.4).

FEMA must identify historic properties that may exist in the proposed project's Area of Potential Effect (APE), which is "the geographic area or areas within which an undertaking

may directly or indirectly cause changes in the character or use of historic properties, if such properties exist” (36 CFR Part 800.16(d)). FEMA must also determine, in consultation with the State Historic Preservation Officer (SHPO), what effect, if any, the action will have on historic properties. Moreover, if the project would have an adverse effect on such properties, FEMA must consult with the SHPO on ways to avoid, minimize, or mitigate those effects.

In a letter dated January 23, 2006, the Illinois Historic Preservation Agency (IHPA) indicated that they have no objection to the TDES Facility project proceeding as planned (Appendix C, Fig. 8). The EDR NEPA Check report concludes that no cultural, historical, or archaeological resources were identified in the project area (see Appendix E).

Discussion of Alternatives

Alternative 1 – No Action: The No Action alternative would not affect cultural or archaeological resources or historic architecture in the project area.

Alternative 2 – Proposed Action: Under the Proposed Action, no effects to cultural or archaeological resources or historic architecture are anticipated. The applicant will monitor any ground-disturbing activities during project implementation. If artifacts or human remains are discovered, all ground disturbing activities in the area shall cease and the applicant will notify FEMA, the Grantee, and IHPA.

Alternative 3 – Action Alternative: Under the Action Alternative, no effects to cultural or archaeological resources or historic architecture are anticipated. However, if this alternative is implemented, the CFPD building proposed for demolition should be evaluated for historic significance. Also, the applicant will monitor any ground-disturbing activities during project implementation. If artifacts or human remains are discovered, all ground disturbing activities in the area shall cease and the applicant will notify FEMA, the Grantee, and IHPA.

5.0 Cumulative Impacts

Cumulative impacts are those effects on the environment that result from the incremental effect of an action when added to past, present, and reasonable foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

The alternatives considered would only have minor and temporary impacts to soils, water quality, and air quality in the area. These impacts will be reduced by the use of Best Management Practices, such as silt fencing and methods to reduce fugitive dust. In addition, there are no other known on-going or planned projects in the vicinity. Therefore, the actions will not have any significant cumulative effects when considering past, present, and reasonably foreseeable actions in the area.

6.0 Public Involvement

On July 25, 2005, Chief Fidler informed the CFPD Board of Trustees of the opportunity to receive CSEP Program funding for the construction of a TDES Facility. The Board agreed to the proposal. The minutes of the July 25, 2005 meeting are provided in Appendix C, Fig. 10. Additionally, in the July 13, 2006 edition of the *Chrisman Leader*, a Public Notice was published of the intent to construct a TDES Facility and of the preparation of an EA to evaluate the impacts of the Proposed Action. A copy of the Public Notice is provided in Appendix D.

This EA will be available for public review and comment at the Chrisman Public Library, and on-line on FEMA's Environmental and Historic Preservation website at <http://www.fema.gov/plan/ehp/envdocuments/ea-region5.shtm>. A copy of the Public Notice is provided in Appendix H.

7.0 Agency Coordination and Permits

As part of the development of this Environmental Assessment, the following federal, state and local agencies were contacted and asked to comment on the proposed project:

- U.S. Army Corps of Engineers
- U.S. Department of Agriculture, Natural Resources Conservation Service
- U.S. Fish and Wildlife Service
- Illinois Department of Natural Resources
- Illinois Historic Preservation Agency
- Illinois Department of Agriculture
- Illinois Environmental Protection Agency
- City of Chrisman, Illinois
- Edgar County Board
- Edgar County Public Health Department

Local utility and/or building permits may be required for the proposed project. These include:

- Office of the State Fire Marshal Permit for Removal or Abandonment-in-Place
- IEPA Notice of Demolition and Renovation
- City of Chrisman Construction Permit

8.0 Conclusion

The proposed project, as described in this EA, will not result in any significant adverse impacts to existing land use, water resources (surface water, groundwater, wetlands, waters of the United States, and floodplains), air quality, noise, biological resources (vegetation, fish

and wildlife, state and federally listed threatened or endangered species and critical habitats), safety issues, hazardous materials and waste, and cultural resources, or result in disproportionately high or adverse effects on minority or low income populations.

9.0 References

Central United States Earthquake Consortium - 2630 E. Holmes Rd., Memphis, TN 38118
Internet site: <http://www.cusec.org>.

Chrisman Place Names. ©1999-2002, Lonnie Chrisman, San Jose, California. Internet site: <http://chrisman.org/placenames.htm>.

FEMA. 2005. Map Service Center: Public Flood Map. Internet site: <http://msc.fema.gov>.

Google Maps. Internet site: <http://maps.google.com/>.

Hill, John R. 2002. Earthquake Near Evansville: Another Warning of Things to Come. The Trustees of Indiana University, Indiana Geological Survey. Internet site: <http://igs.indiana.edu/geology/earthquakes/preparedness/index.cfm>.

Maverick Energy, Inc. 2002. Geology and History of Illinois Basin. Internet site: <http://www.maverickenergy.com/illinois.htm>.

Pavlis, Gary L., et al. 2005. Structure and Seismicity of the Wabash Valley Seismic Zone. Department of Geological Sciences, Indiana University, Bloomington IN. Internet site: <http://erp-web.er.usgs.gov/reports/annsum/vol45/ceu/03hqgr0103ann.htm>.

Southern Illinois University. 2003. Earthquakes and the New Madrid Seismic Zone. Department of Geology. Internet site: <http://www.science.siu.edu/geology/quakes/nmadrid.html>.

Swann, David H. 2006. A Summary of Geologic History of the Illinois Basin. Illinois Oil and Gas Association. Internet site: <http://www.ioga.com/Special/Geohist.htm>.

Treworgy, Janis D. 1981. Structural features in Illinois: a compendium. Illinois State Geological Survey Circular 519. 22 p.

U.S. Census Bureau. 2000. Census 2000 Demographic Profile Highlights. Internet site: <http://www.census.gov/>.

U.S. Fish & Wildlife Service Wetland Maps. Internet site: <http://wetlandsfws.er.usgs.gov>.

U.S. Department of Agriculture. 1999. Soil Survey of Edgar County, Illinois. Illinois Agricultural Experiment Station Soil Report 164. Internet site: http://soils.usda.gov/survey/online_surveys/illinois/edgar/man.pdf.

U.S. Geological Survey. 2005. Earthquake Hazards Program – 1997 Maximum Considered Earthquake Ground Motion for the Conterminous 48 States. Internet site: <http://eqdesign.cr.usgs.gov/html/design-lookup.html>.

Willman, H. B. et al 1975. Handbook of Illinois stratigraphy. Illinois State Geological Survey Bulletin 95. 261 p.

Willman, H. B.; Frye, John C. 1970. Pleistocene stratigraphy of Illinois. Illinois State Geological Survey Bulletin 94. 204 p.

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APPENDICES

Appendix A – Figures

Figure 1 Regional Map

Figure 2 Locator Map

Figure 3 Project Area Site Map

Figure 4 Proposed Action Site Map

Figure 5 Floor Plan – Proposed/Action Alternative

Figure 6 NRCS Soil Map, Chrisman, Edgar County, Illinois

Figure 7 Digital Flood Insurance Rate Map for Chrisman, Edgar County, Illinois

Figure 8 National Wetlands Inventory Map for Chrisman, Edgar County, Illinois

Appendix B – Acronyms

LIST OF ACRONYMS

ACM	Asbestos Containing Material
APE	Area of Potential Effect
ASTM	American Society for Testing Materials
CEQ	Council on Environmental Quality
CFPD	Chrisman Fire Protection District
CFR	Code of Federal Regulations
CSEP	Chemical Stockpile and Emergency Preparedness
EA	Environmental Assessment
EDR	Environmental Data Resources, Inc.
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
ESDA	Edgar County Emergency Services & Disaster Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FOIA	Freedom of Information Act
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
HAZMAT	Hazardous Material(s)
IBC	International Building Code
IEMA	Illinois Emergency Management Agency
IEPA	Illinois Environmental Protection Agency
IFPA	Illinois Farmland Protection Act
IHPA	Illinois Historic Preservation Agency
MSFCMA	Magnunson-Stevens Fishery Conservation and Management Act
NAAQS	National Ambient Air Quality Standards
NCA	Noise Control Act of 1972
NECD	Newport Chemical Depot
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NGVD	National Geodetic Vertical Datum
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Act
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Act Information Systems
SHPO	State Historic Preservation Officer
SQG	Small Quantity Generator
TDES	Training and Decontamination Equipment Storage
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

Appendix C – Agency Correspondence

Figure 1 Illinois Department of Agriculture

Figure 2 Department of the U.S. Army, Paducah District, Corps of Engineers

Figure 3 Illinois Environmental Protection Agency

Figure 4 U. S. Fish and Wildlife Service

Figure 5 Illinois Department of Natural Resources

Figure 6 City of Chrisman

Figure 7 Edgar County Commissioners

Figure 8 Illinois Historic Preservation Agency

Figure 9 Chrisman Fire Protection District Meeting Schedule

Figure 10 Chrisman Fire Protection District Board Meeting Minutes

Appendix D – Public Notice (Intent)

Appendix E – EDR NEPA Check

Appendix F – EDR Radius Map with GeoCheck

Appendix G – Photographs

Appendix H - Public Notice (EA)