

NORTH DAKOTA PUBLIC SERVICE COMMISSION

Application for Route Permit

Hess Corporation RTF
Tie-In 14" Crude Oil Pipeline Project

Prepared by E3 Environmental, LLC

November 2012

TABLE OF CONTENTS

INTRODUCTION 1

SECTION 1: Type, Size and Design 3

 1.1 Type 3

 1.2 Approximate Length of Facility 3

 1.3 Size and Design of Pipeline Facility 3

 1.3.1 Pipe Size 3

 1.3.2 Operating Pressure and Throughput 3

 1.4 Aboveground Facilities 3

 1.5 Width of Right-of-Way 3

 1.6 Location 4

 1.1 Project Schedule 4

 1.1.1 Route Permit 4

 1.1.2 Certificate of Corridor Compatibility 4

 1.1.3 Construction Schedule 4

SECTION 2: Route Analysis and Findings 5

 2.1 Pipeline Route 5

 2.2 Environmental Survey 5

 2.2.1 Noxious Weeds 5

 2.2.2 Tree/Sapling/Shrub Survey 6

 2.2.3 Wetland and Waterbodies Survey 6

 2.2.3.1 Wetland Survey 6

 2.2.3.2 Waterbodies Survey 6

 2.2.4 Wildlife Inventory 6

 2.2.4.1 Federally Protected Species Survey 7

 2.2.5 North Dakota State Historic Preservation Office 8

 2.2.6 U.S. Fish and Wildlife Service Managed lands 8

SECTION 3: Evaluation of the Proposed Route in Regard to Applicable Considerations in Section 49-22-09 and Criteria Established in Section 49-22-05.1 9

 3.1 Exclusion Areas 9

 3.1.1 Federal Resource Review 9

 3.1.2 State Resource Review 9

 3.1.3 County Resource Review 10

 3.1.4 Areas Critical to the Life Stages of Threatened and Endangered Animal or Plant Species 10

 3.1.5 Areas where Animal or Plant Species that are Unique or Rare to this State would be Irreversibly Damaged 10

 3.2 Avoidance Area Inventory and Analysis 10

 3.2.1 Federal Resource Review 11

3.2.2	State Resource Review.....	11
3.2.3	Historical Resources Not Meeting Exclusion Area Criteria	12
3.2.4	Areas of Known Geologic Instability.....	12
3.2.5	Areas Within 500-Feet of a Residence, School or Place of Business ..	12
3.2.6	Reservoirs and Municipal Water Supplies.....	12
3.2.7	Water Sources for Organized Rural Water Districts	12
3.2.8	Irrigated Land.....	12
3.2.9	Areas of Recreational Significance which are not Designated as Exclusion Areas	13
3.3	Factors to be Considered in Evaluating Applications and Designations of Sites, Corridors and Routes (49-22-09)	13
3.4	Selection Criteria.....	15
3.4.1	Agricultural Impact Assessment	15
3.4.2	The Impacts Upon	16
3.5	Policy Criteria.....	17
3.5.1	Policies and Commitments to Limit Environmental Impact.....	17
3.5.2	Location and Design	18
3.5.3	Training and Utilization of Available Labor in This State for the General and Specialized Skills Required	18
3.5.4	Economies of Construction and Operation	18
3.5.5	Use of Citizen Coordinating Committees.....	18
3.5.6	Commitment of a Portion of the Transmitted Product for Use in this State	18
3.5.7	Labor Relations	18
3.5.8	The Coordination of Facilities	19
3.5.9	Monitoring of Impacts.....	19
3.5.10	Utilization of Existing and Proposed ROW and Corridors.....	19
3.5.11	Other Existing or Proposed Transmission Facilities	19
SECTION 4: Mitigative Measures		20
4.1	Location	20
4.2	Construction	21
4.3	Operation	21
SECTION 5: Description of Right-of-Way Preparation and Construction and Reclamation Procedures		22
SECTION 6: Utility’s Easement Acquisition, Landowner Notification and Easement Compensation Plan		23
6.1	Landowner Information Regarding Easement Acquisition, and Necessary Easement Conditions and Restrictions	23
6.2	Compensation Policy	23
SECTION 7: List of Preparers		24

APPENDICES

Appendix A: Engineering Documents

Appendix B: Project Maps

Appendix C: Consultations

Appendix D: Natural Resource Report

Appendix E: Cultural Resources Report

Appendix F: 10-Year Plan

INTRODUCTION

Hess Corporation (Hess) owns and operates several crude oil and natural gas facilities in North Dakota including the Tioga Gas Plant (Plant), the Ramburg Truck Facility (RTF) and the Tioga Rail Terminal (TRT); all of which are located in Williams County, North Dakota. The proposed Hess RTF Tie-in to 14" Crude Oil Pipeline project (RTF Tie-in or Project) is a planned conversion of existing gathering pipelines into a crude oil transmission pipeline which will connect the RTF to the TRT.

The project area consists of three segments of existing pipe which are being repurposed to transport product between the RTF and the TRT. Segment E is approximately 1.9 miles in length, originating at the RTF and traveling north and west to connect with Segment B at an existing compressor station at the southern end of the project area. Segment B trends north for approximately 6.1 miles, connecting with Segment C in Section 35, Township 157N, Range 95W. Segment C trends west and northwest for approximately 2.2 miles before connecting to the Hess TRT. Please see Appendix B for maps of the Project area.

No new ground disturbance will be associated with the Project with the exception of a small amount of construction which would be wholly contained within the confines of the RTF property. The proposed project will be approximately 10.2 miles in length. The proposed Transmission Facility Corridor (Corridor) is comprised entirely of private land.

The conversion of these gathering lines into a transmission pipeline places the Project under the purview of the North Dakota Public Service Commission (PSC or Commission); as such, Hess submits to the Commission a single consolidated application for a Certificate of Corridor Compatibility and Route Permit for the Project.

The application provides the requisite information as stipulated by:

- North Dakota Century Code, Energy Conversion and Transmission Facility Siting Act, Chapter 49-22-08.1; and,
- PCS Administrative Code, Chapter 69-06-05, Transmission Facility Permit.

The information presented in this application is organized according to the format prescribed in the Commission's Application Guidelines for an Application for a Route Permit, which divides the information into the following categories:

- SECTION 1: Type, Size and Design
- SECTION 2: Route Analysis and Findings
- SECTION 3: Evaluation of the Proposed Route in Regard to Applicable Considerations in Section 49-22-09 and Criteria Established in Section 49-22-05.1
- SECTION 4: Mitigative Measures

- SECTION 5: Description of Right-of-Way Preparation and Reclamation Procedures
- SECTION 6: Utility's Easement Acquisition, Landowner Notification, and Easement Compensation Plan
- SECTION 7: List of Preparers

SECTION 1: TYPE, SIZE AND DESIGN

1.1 TYPE

The Project is a crude oil transmission pipeline project. The pipelines currently meet all U.S. Department of Transportation (DOT) regulations, specifically the design, installation, pressure testing, operations and maintenance requirements as outlined in 49 CFR Part 195.

1.2 APPROXIMATE LENGTH OF FACILITY

The proposed pipeline will be a total of approximately 10.2 miles in length. The entire project will be located in Williams County, North Dakota.

1.3 SIZE AND DESIGN OF PIPELINE FACILITY

The Project consists of the conversion of a natural gas gathering pipeline to a crude oil transmission pipeline with the following specifications:

1.3.1 PIPE SIZE

The proposed pipeline is constructed of steel pipe which meet, at a minimum, the following standards.

- One 14" Nominal Diameter Steel Pipe
 - ASME Class 300 Carbon Steel; API 5L, X-42 Std., HFI/ERW, FBE Coated Line Pipe
 - Wall Thickness of 0.500 inches; pipeline casing has been installed at State and US Highway crossings and Railroad crossings.

1.3.2 OPERATING PRESSURE AND THROUGHPUT

The Project has been designed with the following design parameters listed below:

- Maximum/Normal Operating Pressure: 740/100 psig
- Maximum/Normal Throughput: 120,000/54,000 barrels per day (bpd)

1.4 ABOVEGROUND FACILITIES

The proposed Project includes two (2) mainline valves (MLVs). These were installed to meet DOT regulations and will allow for the isolation of select segments of the pipeline for inspection and maintenance purposes. The MLVs are installed within the confines of the existing RTF and TRT facilities.

1.5 WIDTH OF RIGHT-OF-WAY

No construction right-of way will be associated with the Project, as there will be no ground-disturbing activities outside of Hess' existing facilities.

1.6 LOCATION

The Project will be located in Williams County, North Dakota, originating at the RTF located approximately 7.5 miles south of the city of Tioga, North Dakota, and terminating at the TRT located approximately 1 mile west of Tioga. Please refer to the Project maps provided in Appendix B.

1.1 PROJECT SCHEDULE

1.1.1 ROUTE PERMIT

Hess is seeking a Route Permit in or before January 2013.

1.1.2 CERTIFICATE OF CORRIDOR COMPATIBILITY

Hess is submitting the application for a Certificate of Corridor Compatibility in November 2012 which has been included with this Route Permit Application. The two applications have been combined to form this Consolidated Application. Hess is seeking a Certificate of Corridor Compatibility in or before January 2013.

1.1.3 CONSTRUCTION SCHEDULE

Hess has scheduled construction to commence as early as the first quarter of 2013. All ground-disturbing construction activities associated with the Project will be contained within the boundaries of the RTF facility. Construction is expected to take approximately four (4) weeks to complete. Commissioning activities will commence immediately after construction.

SECTION 2: ROUTE ANALYSIS AND FINDINGS

2.1 PIPELINE ROUTE

The proposed pipeline route (Route) is approximately 10.2 miles long, and is located entirely within Williams County, North Dakota. The proposed Route was developed based upon a thorough analysis of the proposed Corridor (a 1-mile wide corridor centered upon the proposed Route, *i.e.*, one-half mile on either side of the proposed Route), as discussed in the application for a Certificate of Corridor Compatibility. This broad-based analysis confirmed that the proposed pipeline Corridor was suitable and that it would cause minimal environmental impacts, thus conforming to the Commission's siting criteria.

Once the Corridor was established, Hess studied routing alternatives and developed the proposed pipeline alignment (Route), which satisfies the Project's objectives while also conforming to the Commission's siting requirements for a transmission route. In support of Hess' Route selection, the analytical studies from the Corridor were refined and augmented with field studies. Field studies were conducted along the entire length of the Project by trained natural and cultural resource specialists. The environmental survey corridor was a minimum of 200-feet centered upon the proposed Route and was extended up to 350-feet in areas. The survey corridor is depicted on the maps in Appendix B. The purpose of these field studies was to inventory any potential resource issues (*e.g.*, wetlands, waterbodies, protected species, critical habitats, or cultural resources) that may intersect the proposed pipeline alignment. The results of these field surveys are discussed in the following sections. A full Natural Resources and Wetland Determination Report (Natural Resources Report) is provided in Appendix D, and the Class I and Class III Cultural Resource Inventory Report (Cultural Resources Report) is provided in Appendix E.

2.2 ENVIRONMENTAL SURVEY

All field surveys were conducted based upon a minimum 200-foot wide survey corridor, centered upon the proposed pipeline Route. Field surveys were completed on June 10, June 20, July 1 and September 8 of 2011, and March 16 and August 16 of 2012.

2.2.1 NOXIOUS WEEDS

Field efforts included a detailed noxious weed inventory. "Noxious weed" is a general term used to describe fast-spreading, non-native plant species in a given area. These species have adverse ecological and economic impacts due to their ability to outcompete native plant species for habitat and resources. Field surveys identified five (5) noxious weed colonies of Canada thistle in the survey corridor. As there are no ground-disturbing activities associated with this project outside of existing Hess facilities, there is no risk of furthering the spread of noxious weeds. Please see Appendix B for the mapped location of these occurrences, Appendix D for the complete

Natural Resources Report, and Section 4: Mitigative Measures in this document for the proposed mitigation procedures.

2.2.2 TREE/SAPLING/SHRUB SURVEY

The natural resource surveys included a tree/shrub inventory. This inventory recorded the pre-construction status of this resource and shall form a baseline for restoration and mitigation reconciliation. No trees, saplings or shrubs were identified within the pipeline Route during the surveys. In addition, no shrubs or trees will be removed as there are no clearing activities associated with the Project. Please see Appendix D for the complete Natural Resources Report and SECTION 4: Mitigative Measures of this application for proposed mitigation measures.

2.2.3 WETLAND AND WATERBODIES SURVEY

The proposed alignment was inventoried for wetland and waterbody features. Field crews identified features, characterized the feature as wetland or waterbody and recorded feature boundaries relative to the proposed centerline.

2.2.3.1 WETLAND SURVEY

Survey efforts documented the wetlands that were present within the survey corridor. A total of six (6) wetlands were recorded, totaling approximately 6.4 acres. Due to the lack of trenching or boring activities associated with the proposed Project, no wetlands will be impacted. Please see Appendix B (see Figure SC-NR) for the mapped location of each feature, Appendix D for the complete Natural Resources Report and SECTION 4: Mitigative Measures of this application for proposed mitigation measures.

2.2.3.2 WATERBODIES SURVEY

Field studies included an inventory of waterbodies that occurred within the survey corridor. Survey personnel inventoried waterbodies (*e.g.*, ponds, creeks, streams) with a discernible ordinary high water mark (OHWM). The OHWM is a widely accepted physical characteristic used to identify features that are likely regulated by the U.S. Army Corps of Engineers (COE.) No waterbodies were inventoried during field efforts. Please see Appendix D for the complete Natural Resources Report.

2.2.4 WILDLIFE INVENTORY

Approximately 160 wildlife species are resident or seasonal visitors to the Project Corridor. These include common mammals (raccoons, white-tailed and mule deer, and pronghorn); various songbirds (Bobolink, Grasshopper Sparrow, Western Meadowlark and Horned Lark); eagles and raptors (Bald and Golden Eagles, Red-tailed Hawk, and Northern Harrier); and numerous other fauna. The proposed alignment was inventoried for sensitive species and their critical habitat. No threatened or endangered species were observed by field biologists. Please see Appendix D for the complete survey report.

2.2.4.1 FEDERALLY PROTECTED SPECIES SURVEY

Under authority of the Endangered Species Act (ESA), the U.S. Fish and Wildlife Service (USFWS) and the Fisheries Service division of the National Oceanic and Atmospheric Administration (NOAA) have identified and maintain a list of species and critical habitats that have been afforded protection under the ESA. The ESA also provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they live.

On July 9, 2012, E3 Environmental, LLC (E3) requested a USFWS review of the Project, requesting information relating to the presence or absence of threatened and endangered species within the project area. The USFWS, in their comments dated October 9, 2012, expressed specific concerns regarding species protected by the ESA.

Hess commissioned field studies to confirm the presence or absence of these species and/or their critical habitats along the proposed pipeline Route. The results of this assessment are provided below; refer to Appendix D for a complete Natural Resources Report.

Whooping Crane: The Whooping Crane is present in North Dakota on a semi-annual basis during spring and fall migrations between breeding grounds in Wood Buffalo National Park in Canada and winter grounds in the Aransas National Wildlife Refuge in the Gulf of Mexico. During migration, the species utilizes larger wetland complexes for roosting habitat and adjacent uplands for foraging. The proposed Project is located within the migration corridor of the Whooping Crane. Field crews observed potentially suitable habitat (i.e.; cultivated fields suitable for foraging) for migrating whooping cranes within the survey corridor. Please refer to Appendix C for related agency consultations, Appendix D for the detailed survey results, and Section 4: Mitigative Measures in this document for proposed mitigation measures.

Piping Plover: Field studies of the survey corridor confirmed the absence of suitable habitat or plovers.

Interior Least Tern: Field studies of the survey corridor confirmed the absence of suitable habitat or terns.

Pallid sturgeon: Field studies of the survey corridor confirmed the absence of suitable habitat.

Bald Eagle: Field studies confirmed the absence of nesting or roosting habitat within 0.5 miles of the centerline of the survey corridor.

Golden Eagle: No golden eagles were observed within 0.5 miles of the project area. Field crews recorded potential golden eagle breeding habitat, but evidence of nests or nesting was absent. Hess will work with the USFWS as necessary if nesting activity is observed within 0.5 miles of the proposed pipeline route. Please refer to Appendix C for

related agency consultations, Appendix D for the detailed survey results, and Section 4: Mitigative Measures in this document for proposed mitigation measures.

2.2.5 NORTH DAKOTA STATE HISTORIC PRESERVATION OFFICE

The North Dakota State Historic Preservation Office (SHPO) is charged with managing the historic and archaeological resources of the state. Hess commissioned SWCA, Inc. (SWCA) to conduct a Class I cultural resource inventory of the Corridor. This desktop analysis was completed on May 2, 2011. The results of this inventory identified 21 previously recorded cultural resources within the proposed Corridor. These results were used to assist in the preparation for field studies.

The ensuing Class III Cultural Resource Inventory of the Route was completed by SWCA on May 16-18, June 6, and July 1 of 2011, and March 16, May 17 and September 7 of 2012. Field crews revisited one previously recorded cultural resource (32WI319) and identified one newly recorded cultural site (32WI1280). 32WI319 is an historic site consisting of a pole barn and corral. 32WI1280 is a collapsed historic structure with associated historic stone alignments.

SWCA recommended both sites as not eligible for listing on the National Register of Historic Places (NRHP). No avoidance measures have been recommended as there will be no ground-disturbing activities associated with the Project.

On July 27 and October 29, 2012, Hess received concurrences of *No Historic Properties Affected* and *No Significant Sites Affected* for the Project from the SHPO. They concurred that sites 32WI319 and 32WI280 are not significant and as such, are not eligible for listing under the NHRP.

Please refer to Appendix C for related agency consultations, Appendix E for the Cultural Resources Reports and SECTION 4: Mitigative Measures of this application for proposed mitigation measures.

2.2.6 U.S. FISH AND WILDLIFE SERVICE MANAGED LANDS

On October 9, 2012, the USFWS provided a response regarding the presence of USFWS managed lands within the Project Corridor. The USFWS identified Service property interests located in the planning area of the Project. As there will be no new ground disturbance associated with the Project, there will be no impacts to these areas. Further communication with the USFWS regarding these lands is ongoing. Please refer to Appendix C for documentation of the agency consultation.

SECTION 3: EVALUATION OF THE PROPOSED ROUTE IN REGARD TO APPLICABLE CONSIDERATIONS IN SECTION 49-22-09 AND CRITERIA ESTABLISHED IN SECTION 49-22-05.1

3.1 EXCLUSION AREAS

Exclusion areas are geographical areas that should be excluded in the consideration of a route for a transmission facility. The following table and text identify and discuss exclusion areas identified along the proposed Route.

Exclusion Area	Crossed by Proposed Route
Federal	
National Parks or Memorial Parks	No
Historic Sites or Landmarks	No
Natural Landmarks or Monuments	No
Wilderness Areas	No
State	
Historic Sites, Monuments, or Historical Markers;	No
Archaeological Sites	Yes
Parks	No
Nature Preserves	No
County	
Parks	No
Recreation Areas	No
Municipal Parks	No
Other	
Areas Critical to the Life Stages of Threatened or Endangered Animal or Plant Species	No
Areas where Animal or Plant Species that are Unique or Rare to this State would be Irreversibly Damaged	No

3.1.1 FEDERAL RESOURCE REVIEW

Hess has initiated consultations with various Federal agencies and has conducted a comprehensive review of published information. Hess has concluded that no national parks, memorial parks, landmarks, natural landmarks, monuments, or wilderness areas will be affected by the Project.

3.1.2 STATE RESOURCE REVIEW

Hess has confirmed, through a combination of agency consultations, review of publicly available information and field studies, that no state parks, historic sites, monuments, historical markers, or nature preserves are crossed by the proposed Route.

Hess commissioned a Class I Cultural Resource Inventory of the proposed Corridor and augmented that effort with a Class III Cultural Resource Inventory of the Route. The results of the Class III effort are summarized in Section 2.2.4. On July 27 and October 29, 2012, Hess received concurrences of *No Historic Properties Affected* and *No*

Significant Sites Affected for the Project from the SHPO, provided there are no changes to the nature or location of the proposed Project. Please see Appendix C for related consultations, Appendix E for the Cultural Resources Report and SECTION 4: Mitigative Measures for a detailed discussion of proposed mitigation.

3.1.3 COUNTY RESOURCE REVIEW

Hess has confirmed through a combination of agency consultations, review of publicly-available information and field studies the absence of county parks, county recreation areas, municipal parks, or parks owned by other subdivisions of government bodies within the proposed Route.

3.1.4 AREAS CRITICAL TO THE LIFE STAGES OF THREATENED AND ENDANGERED ANIMAL OR PLANT SPECIES

Hess has commissioned surveys of the proposed Route. The scope of the surveys included documentation of federally listed species identified during field surveys or evidence of their critical habitats. Emphasis was placed on those species identified through public domain research, as well as the results of Project-specific consultations conducted for the Corridor analysis. No areas critical to the life stages of threatened or endangered animals or plants were identified during this effort. The results of these field efforts are detailed in SECTION 2.2.3: Wildlife Inventory, and proposed mitigation is discussed in SECTION 4: Mitigative Measures.

3.1.5 AREAS WHERE ANIMAL OR PLANT SPECIES THAT ARE UNIQUE OR RARE TO THIS STATE WOULD BE IRREVERSIBLY DAMAGED

Based upon agency consultations and subsequent field surveys, the proposed Project would not result in irreversible impacts that are detrimental to species or their habitats. No ground-disturbing construction activities will be associated with the Project, and will avoid impacting unique or rare animal or plant species or their habitats.

3.2 AVOIDANCE AREA INVENTORY AND ANALYSIS

Avoidance areas are geographical areas that shall not be considered in the routing of a transmission facility unless, under the circumstances, it is shown that there is no reasonable alternative. The following table and text identify and discuss avoidance areas crossed by the proposed Route.

Avoidance Area	Crossed by Proposed Route
Federal	
Historic Districts	No
Wildlife Areas	Yes
Wild, Scenic or Recreational Rivers	No
Wildlife Refuges	No
Grasslands	No
State	
Wild, Scenic or Recreational Rivers	No
Game Refuges or Game Management Areas	No
Forests or Forest Management Lands	No
Grasslands	No
Other	
Historic Resources not meeting Exclusion Areas criteria	No
Areas of Known Geologic Instability	No
Areas within 500-Feet of a Residence, School, or Place of Business	No
Reservoirs and Municipal Water Supplies	No
Water Sources for Organized Rural Water Districts	No
Irrigated Land (not applicable to underground facilities)	N/A
Areas of Recreational Significance which are not designated as Exclusion Areas	No

3.2.1 FEDERAL RESOURCE REVIEW

Hess conducted a comprehensive review of publicly available information and field studies of the proposed Route. This review indicated the absence of designated or registered historic districts, refuges, grasslands, and wild, scenic, or recreational rivers within the Route.

During consultations with the USFWS, Service property interests were identified within the planning area of the Project. Further communication with the USFWS regarding these lands is ongoing. Please refer to Appendix C for documentation of the agency consultation.

3.2.2 STATE RESOURCE REVIEW

Hess conducted a review of publicly available resources and has concluded that no designated or registered state wild, scenic, or recreational rivers, game refuges, game management areas, management areas, forests, forest management lands, or grasslands are crossed by the proposed Route.

3.2.3 HISTORICAL RESOURCES NOT MEETING EXCLUSION AREA CRITERIA

Hess conducted a review of publicly available resources and has concluded that there are no historical resources within the Route that do not meet the exclusion area criteria.

On July 27, 2012, Hess received concurrence of *No Historic Properties Affected* and *No Significant Sites Affected* for the Project from the SHPO, provided there are no changes to the nature or location of the proposed Project. Please see SECTION 2.2.4 North Dakota State Historic Preservation Office for a discussion of related studies and results, Appendix C for related consultations, Appendix E for the Cultural Resources Report and SECTION 4: Mitigative Measures for a discussion of proposed mitigation at the archaeological sites identified during the Class III Cultural Resource Survey.

3.2.4 AREAS OF KNOWN GEOLOGIC INSTABILITY

There are no known areas of geological instability along the proposed Route. North Dakota has not experienced an earthquake of sufficient magnitude to damage welded steel piping or structural steel in recorded history. Sink holes are known to occur in North Dakota but are more closely related to mining activities and no evidence of mining or sink holes was identified. Finally, the potential for landslides was evaluated; earth movement of this nature is closely associated with areas of great topographic relief, high gradient slopes, recent deposits that have yet to reach a stable angle of repose, or where underground water movement may create a slurry of rock and mud resulting in a subsidence. There are no locations along the proposed Route that can be characterized as unstable or prone to landslides.

3.2.5 AREAS WITHIN 500-FEET OF A RESIDENCE, SCHOOL OR PLACE OF BUSINESS

Hess utilized aerial photography to identify structures located within 500 feet of the proposed pipeline alignment. Field surveys were conducted of each structure to characterize the structure as rural residence, school or place of business. Hess did not identify any locations where an occupied structure is located within 500 feet of the proposed alignment.

3.2.6 RESERVOIRS AND MUNICIPAL WATER SUPPLIES

Hess has confirmed that the Route does not contain reservoirs or municipal water supply sources.

3.2.7 WATER SOURCES FOR ORGANIZED RURAL WATER DISTRICTS

Hess has confirmed that the Route does not contain water sources that are utilized by organized rural water districts.

3.2.8 IRRIGATED LAND

This criterion does not apply to underground transmission facilities; as such, it is not applicable to this project.

3.2.9 AREAS OF RECREATIONAL SIGNIFICANCE WHICH ARE NOT DESIGNATED AS EXCLUSION AREAS

Hess has confirmed that the Route does not cross areas of Recreational Significance.

3.3 FACTORS TO BE CONSIDERED IN EVALUATING APPLICATIONS AND DESIGNATIONS OF SITES, CORRIDORS AND ROUTES (49-22-09)

Available Research and Investigation Relating to the Effects of the Location, Construction, and Operation of the Proposed Facility on Public Health and Welfare, Natural Resources and the Environment:

The Route selection process identified and evaluated several options for routing this Project. These studies were designed to define a preferred route that achieves Project objectives, is technologically and economically feasible for construction, and minimizes impacts to landowners and the environment.

Field studies were conducted to identify environmental, biological, and cultural resources along the Route; the results of this effort are discussed in SECTION 2: Route Analysis and Findings and full reports are provided in Appendices D and E. SECTIONS 3.4: Selection Criteria and SECTION 3.5: Policy Criteria, included below, discuss possible effects on the public health and welfare.

The proposed Project includes two (2) MLVs located within the existing RTF and TRT facilities, as well as one block valve to be installed at the tie-in location at the RTF. These valves will meet DOT regulations and will allow for the isolation of select segments of the Project for inspection and maintenance purposes, as well as during abnormal operating conditions.

During operation of the Project, the pipeline system shall be continuously monitored via Hess' Supervisory Control and Data Acquisition (SCADA) system, which is designed to isolate any section that exhibits abnormal operating parameters.

The Effects of New Energy Conversion and Transmission Technologies and Systems Designed to Minimize Adverse Environmental Effects:

The Project does not include energy conversion or transmission technologies and systems that are specifically designed to minimize adverse environmental impacts. There will be no ground-disturbing activities outside of Hess-owned facilities.

Adverse Direct and Indirect Environmental Effects which cannot be Avoided Should the Proposed Site or Route be Designated:

Should the proposed Project be designated in the area and manner described herein, there will be no direct or indirect adverse environmental effects.

Alternatives to the proposed corridor or route which are developed during the hearing process and which minimize adverse effects:

Hess will fully participate in the hearing process and will address any alternatives developed during the hearing process, as applicable.

Irreversible and irretrievable commitments of natural resources should the proposed corridor and route be designated:

Hess is not aware of any irreversible or irretrievable commitments of natural resources that would result from the requested approvals.

Direct and Indirect Economic Impacts of the Proposed Facility:

Construction of this Project will provide firm, reliable service for a maximum 120,000 bpd of crude oil and provide a critical transportation link between the RTF and the TRT for delivery to critical U.S. and Canada markets via railcar transportation.

Existing Plans of the State, Local Government, and Private Entities for Other Developments at or in the Vicinity of the Proposed Route:

Hess is not aware of any other future development plans within or in close proximity to the Route.

The Effect of the Proposed Route on Existing Scenic Areas, Historic Sites and Structures and Paleontological or Archaeological Sites:

Hess has commissioned Class I and Class III Cultural Resource Surveys of the Route. All related correspondence can be found in Appendix C and supporting documentation of field studies can be found in Appendix E.

Project-specific consultation with various federal, state and local agencies did not identify any scenic areas within the Route. All related correspondence can be found in Appendix C.

SWCA, on behalf of Hess, initiated a Project review with experts who possess knowledge of North Dakota's paleontological resources; these consultations concluded that there are no known resources within the proposed Corridor or Route.

The Effect of the Proposed Route on Areas Which are Unique Because of Biological Wealth or Because they are Habitats for Rare and Endangered Species:

The proposed Route is not anticipated to result in permanent adverse impacts to the environment. No federally- or state-listed species or their critical habitats were identified during field surveys. Please see SECTION 2: Route Analysis and Findings for a comprehensive discussion of Hess' efforts to identify sensitive environmental resources along the proposed Route. As there are no ground-disturbing construction activities taking place outside the confines of Hess facility properties, the Project will not result in impacts to listed or sensitive species or their habitats. See Appendix C for

complete federal and state agency consultations. Detailed survey results can be found in Appendix D.

Problems Raised by Federal Agencies, Other State Agencies and Local Entities:

Hess has consulted with several federal and state agencies to identify possible environmental resources within the Corridor and any related agency concerns. Responding agencies had no such concerns, citing the lack of ground disturbance related to the Project.

Hess also commissioned field studies of the Route to identify locations of sensitive resources. As there are no ground-disturbing activities related to the Project, impacts to these resources will be completely avoided. Further details regarding agency consultations and concerns can be found in the application for the Certificate of Corridor Compatibility, and avoidance, planning and mitigation measures are further detailed in SECTION 4: Mitigative Measures of this application. See Appendix C for complete Federal and state agency consultations. Detailed survey results can be found in Appendix D.

3.4 SELECTION CRITERIA

The selection criteria require a study of environmental impacts and changes in land use that may result from the siting of the proposed Project. By avoiding ground-disturbing activities outside of Hess-owned facilities, Hess will successfully avoid all negative effects with respect to the selection criteria.

3.4.1 AGRICULTURAL IMPACT ASSESSMENT

Agricultural Production: The majority (95%) of the land located within the project area can be characterized as agricultural. The Project will not impact any agricultural land, temporarily or otherwise.

Family Farms and Ranches: As there are no ground-disturbing activities associated with the Project outside of Hess-owned facilities, there will be no impact to family farms and ranches.

The Project will have minimal impact to lifestyle or farm/ranch operations once construction has been completed. Buried pipelines will not impact typical farm or ranch operations, and those areas directly impacted by construction will be restored to their pre-construction condition.

The location of pipeline markers is defined under 49 CFR 195 for pipelines. Hess works with local landowners and county officials to ensure that pipeline markers are located where required but also in an acceptable location for these parties. These markers are to be placed in full view so that they are not accidentally damaged by nor cause damage to landowner or county equipment.

Lands Suitable for Irrigation: The proposed Route will potentially cross lands that are currently irrigated and others that are potentially suitable for irrigation. The proposed Project will not result in temporary or permanent impacts to these fields.

Surface Drainage: As there are no ground-disturbing activities taking place outside of Hess-owned facilities, there will be no change in surface drainage.

Ground Water: The aquifers that underlay North Dakota are typically associated with two types of geologic formations, specifically bedrock and glacial drift. Bedrock aquifers in the area are known to occur from 3,000 to 5,000 feet below the surface while glacial drift aquifers are known to occur at depths of from a few feet to up to 500 feet below the surface. There will be no ground excavation associated with the Project outside of Hess-owned facilities; as such, the Project will not have any impact on groundwater resources.

3.4.2 THE IMPACTS UPON

Noise-Sensitive Land Uses: The Project is located in a rural setting, effectively isolating it from the majority of sensitive receptors. Once constructed and in-service, normal pipeline operations are not audible. As there are no construction activities associated with the Project outside of Hess-owned facilities, there will be no impact on noise-sensitive resources. Field studies verified that there are no potential noise-sensitive resources or inhabited structures located within 500-feet of the proposed pipeline Route.

Visual Effect on Adjacent Areas: The proposed Project includes two (2) existing MLVs located within Hess facilities, and the installation of a block valve at the tie-in location within the RTF. These are small aboveground located within the existing footprint of the RTF and TRT facilities. The visible piping and equipment are finished and maintained with a white painted surface. No other permanent aboveground features are to be installed as a part of the Project.

Extractive and Storage Resources: This Project will not impact any extractive or storage resources.

Wetlands, Woodlands, and Wooded Areas: A comprehensive desktop review of published data, including aerial photography and National Wetland Inventory data was conducted to assess the presence or absence of wetlands, woodlands, and wooded areas. The review of the proposed Corridor confirmed the presence of these resources. Hess commissioned field surveys to identify and record the locations of these resources with respect to the proposed Route. As there will be no ground-disturbing activities associated with the Project, there will be no impacts to these wetlands, woodlands, and wooded areas. Please refer to SECTION 2: Studies in the application for the Certificate of Corridor Compatibility for a comprehensive discussion of Hess' consultations, and Appendices C and D for reference. Mitigation details are discussed in SECTION 4: Mitigative Measures of this Application.

Radio and Television Reception, and other Communication or Electronic Control Facilities: Hess does not anticipate that the Project will impact radio, television, or other electronic control facilities.

Human Health and Safety: Hess' corporate policy meets or exceeds federal and state laws, rules and regulations and is enforced and adhered to by all Hess' employees and contractor employees. Hess utilizes procedures designed to protect property and personnel, and to maintain regulatory compliance, in its operations and construction activities. By implementing these policies and practices, Hess promotes a safe and healthy workplace during construction and operation of all its assets.

The design of the Project incorporates the use of valves at each pipeline terminus. The purpose of the valves is to allow for the isolation of a pipeline to facilitate maintenance in a safe and controlled manner. Additionally, in the event of an abnormal operating condition, valves can be closed as necessary to prevent an uncontrolled release of product. Finally, the operation of the pipeline will be continuously monitored via Hess' SCADA system, which is designed to shut in any section that exhibits abnormal operating parameters.

Animal Health and Safety: The wildlife currently inhabiting the Route are common and generally mobile. As there will be no ground-disturbing construction activities outside of Hess facilities associated with the Project, there will be no impact on the local wildlife inhabitants. No species of special concern are anticipated to experience direct impacts due to the operation of the Project.

Plant Life: The Project will not result in the loss of agricultural or pastureland. No species of special concern will be impacted by the Project.

3.5 POLICY CRITERIA

3.5.1 POLICIES AND COMMITMENTS TO LIMIT ENVIRONMENTAL IMPACT

Hess selects pipeline corridors and routes to minimize impact as required by the statutes, rules and regulations of the Commission. As appropriate, Hess may employ local environmental consultants and archaeologists to assist with planning. Local farmers may also be employed for restoring cropland to tillable condition following construction. Hess is proud of its safety record in the operation of facilities in North Dakota and is prepared to meet any emergency that should arise in order to minimize the impact of any pipeline failure.

The operation of the pipeline would be monitored by the continuously manned Hess Tioga Gas Plant Control Center located in the Tioga Gas Plant. This facility monitors most of Hess' oil pipeline operations in North Dakota. With this system in place, abnormal operating parameters will be quickly identified and the proper response shall be implemented quickly and efficiently. The operation of the pipeline conforms to DOT standards; as such, Hess maintains a rigid pipeline integrity program and

periodically runs internal line inspection tools to find anomalies, and perform repairs as required.

3.5.2 LOCATION AND DESIGN

The Project will be located in Williams County, North Dakota, originating at the RTF located approximately 7.5 miles south of the city of Tioga, North Dakota, and terminating at the TRT located approximately 1 mile west of Tioga. Please refer to the project maps provided in Appendix B.

The Project will be designed with the minimum specifications as outlined in sections 1.3 and 1.4 of this Route Permit.

Hess will ensure the design of the pipeline to be in full compliance with applicable DOT standards.

3.5.3 TRAINING AND UTILIZATION OF AVAILABLE LABOR IN THIS STATE FOR THE GENERAL AND SPECIALIZED SKILLS REQUIRED

The Project will require minimal labor with a variety of backgrounds ranging from general laborers and welders to inspectors and engineers. Hess will draw upon the local labor force to supply project personnel. The workforce is anticipated to reach a peak of approximately 20 personnel.

3.5.4 ECONOMIES OF CONSTRUCTION AND OPERATION

The Project represents an opportunity to enhance existing infrastructure through the conversion of approximately 10 miles of pipeline. In doing so, Hess will gain access to existing rail shipping capacity with only nominal construction investment. The Project represents a total investment of approximately \$1.0 million for the conversion of the pipeline and installation of appurtenant facilities in Williams County, North Dakota. Once constructed and in-service, the continued costs of maintenance and operation of the proposed pipeline are expected to be minimal.

3.5.5 USE OF CITIZEN COORDINATING COMMITTEES

Hess has established and maintains a good relationship with the local residents through its long-term regional presence operating various assets in the area. Through these relationships Hess has maintained several grass roots communication channels to inform local residents regarding the developments associated with the Project.

3.5.6 COMMITMENT OF A PORTION OF THE TRANSMITTED PRODUCT FOR USE IN THIS STATE

Currently the result of this Project will be the delivery of crude oil to market points in the United States and Canada.

3.5.7 LABOR RELATIONS

Hess does not anticipate encountering any adverse labor relations on this Project. The labor market in the Project area is supportive of the oil and gas industry.

3.5.8 THE COORDINATION OF FACILITIES

Hess owns and operates all of the affected facilities; thus, coordination will be seamless and executed from within Hess' internal management systems.

3.5.9 MONITORING OF IMPACTS

For the duration of the Project, Hess' primary contractor shall be responsible for providing oversight of conversion-related activities.

3.5.10 UTILIZATION OF EXISTING AND PROPOSED ROW AND CORRIDORS

The entire Project right-of-way is collocated with other utilities. Segment E is collocated with four (4) gathering pipelines, one (1) fuel gas pipeline, three (3) PSC regulated product lines, and two (2) fiber optic cables. Segment B is collocated with one (1) gathering pipeline and one (1) sales pipeline. Segment C is collocated with two (2) gathering pipelines. As such 100% of the Project will utilize existing and proposed right-of-way.

3.5.11 OTHER EXISTING OR PROPOSED TRANSMISSION FACILITIES

Hess is actively marketing in the region, and projects of various form and function are frequently studied. Hess plans to install three (3) NGL product pipelines connecting the Hess Tioga Gas Plant to the newly-built TRT. Construction of these pipelines is anticipated to occur within the next five years, as reported in their current 10-Year Plan (see Appendix F).

SECTION 4: MITIGATIVE MEASURES

4.1 LOCATION

The location of the proposed Route is a function of the locations of the RTF and the TRT, as well as the process of evaluating various alternatives to identify the most desirable and suitable route. Hess commissioned field surveys of the proposed Route to address specific agency concerns expressed during consultations, inventory the resources present along the Route, and define the location and boundaries of resources that intersect the proposed Route.

Trees and shrubs: Hess shall comply with the Commission's tree and shrub mitigation specifications. Field surveys included a pre-construction tree and shrub inventory. As there will be no ground-disturbing construction activities outside of Hess facilities associated with the Project, there will be no clearing or removal of trees or shrubs.

Wetlands and Waterbodies: As there will be no ground-disturbing construction activities associated with the Project, no wetlands and waterbodies will be impacted.

Migratory Bird Treaty Act: Hess, in the interest of maintaining full compliance with the Migratory Bird Treaty Act (MBTA) consulted with the USFWS on July 9, 2012. Agency response is pending. However, given that there will be no construction-related activities associated with the Project, Hess will avoid direct impacts to breeding birds

Whooping Crane: The Whooping Crane is federally listed as an endangered species. It is present in North Dakota on a semi-annual basis during the spring and fall migration between breeding grounds in Wood Buffalo National Park in Alberta and Northwest Territories, Canada, winter grounds in the Aransas National Wildlife Refuge in the Gulf of Mexico. The proposed Project is located within the migration corridor of the Whooping Crane and the birds may utilize a variety of habitats across a vast landscape during migration. Field surveys identified potential migratory foraging habitat in the survey corridor.

Overhead power lines present a hazardous habitat for cranes and noted that juveniles are measurably more vulnerable to this risk. The proposed pipeline will not require the installation of any overhead utilities. Please see Appendix C for agency consultations.

Bald and Golden Eagle: Field surveys conducted between May and September, 2011, and in March and August of 2012 confirmed the absence of nests or nesting activities where habitat was suitable along the Route.

To mitigate potential adverse effects on nesting and breeding eagles, the USFWS generally recommends maintaining a nest buffer of at least 0.5 miles for any eagles nesting in the area. Hess will work with the USFWS as necessary if an eagle nest is identified within 0.5 miles of the proposed pipeline route.

Cultural Resources: On July 27, 2012, Hess received concurrence of *No Historic Properties Affected* and *No Significant Sites Affected* for the Project from the SHPO, provided there are no changes to the nature or location of the proposed Project. Resources identified during field surveys are summarized below. As there will be no ground-disturbing activities associated with the Project, no further mitigation for these sensitive resources is required.

32WI1280: This is a newly recorded historic site consisting of a collapsed building and two stone alignments that are likely associated with clearing activities from an adjacent agricultural field. Due to the likelihood that the building was moved from its original location and that it cannot be associated with a historic person, event or pattern of events, this site is recommended as not eligible for nomination to the NRHP. Please see Appendix C for related agency correspondence and Appendix E for survey results.

32WI319: This is a previously recorded historic site consisting of a collapsed historic pole barn, foundation, and associated historic cultural material scatter. The site was originally recorded in 1992. The site is in poor condition and has been impacted by construction activities, fire, and the elements; as such, it is recommended not eligible for listing on the NRHP. Please see Appendix C for related agency correspondence and Appendix E for survey results.

4.2 CONSTRUCTION

No ground-disturbing activities will take place outside of the confines of the RTF and the TRT. Conversion of the gathering lines to a fully-functioning transmission line is estimated to require approximately four (4) weeks.

4.3 OPERATION

Once constructed and put into service, the proposed Project will operate continuously delivering crude oil from the RTF to the TRT. Normal pipeline operations are imperceptible to the general public, as they are silent, buried and therefore not visible, and require only minimal aboveground activity. Standard operating procedures will conform to DOT standards and requirements and as such, periodic inspection and maintenance of the right-of-way will be required.

Noxious Weeds: Field surveys identified five (5) locations where Canada occurs within the route. As there are no ground-disturbing activities associated with the Project, there is no risk of furthering the spread of noxious weeds.

SECTION 5: DESCRIPTION OF RIGHT-OF-WAY PREPARATION AND CONSTRUCTION AND RECLAMATION PROCEDURES

No construction-related activities will take place outside of footprint of Hess' properties at the RTF and the TRT. No new right-of-way clearing or development will be necessary; as such, there will be no surveying, staking, clearing, grading, trenching, pipe stringing, pipe bending, welding, coating, lowering in, tie-ins outside of those at the termini at the RTF and TRT, backfilling, rough grading, or final restoration activities (*e.g.*, topsoil replacement, final grading, seeding and mulching).

SECTION 6: UTILITY'S EASEMENT ACQUISITION, LANDOWNER NOTIFICATION AND EASEMENT COMPENSATION PLAN

6.1 LANDOWNER INFORMATION REGARDING EASEMENT ACQUISITION, AND NECESSARY EASEMENT CONDITIONS AND RESTRICTIONS

The Project is the conversion of existing gathering lines into a crude oil transmission lines. As such, no new easements and no additional acquisition of property or rights-of-way will be required. There will be no ground-disturbing construction activities associated with the Project.

6.2 COMPENSATION POLICY

Hess' practice for determining landowner compensation for easements is based on research of comparable fair market pricing and prior experience negotiating easements locally. The Project will not require any additional landowner compensation.

SECTION 7: LIST OF PREPARERS

Tyler Bohan

Facilities Engineer
Hess Corporation, 10384 68th Street Northwest, Tioga, ND 58852

B.S. Chemical Engineering, University of North Dakota. Mr. Bohan is a Facilities Engineer assigned to projects for both the Tioga Gas Plant and the Tioga Rail Terminal as part of Hess' Bakken asset development. As a Facilities Engineer his experience includes identifying and developing optimization and replacement projects for Hess assets, coordinating the TGP Process Safety Management Program, and upholding Hess design specifications and safety practices in new construction projects and base oil and gas operations.

William McCarthy, C.W.B.

Senior Environmental Compliance Analyst
E3 Environmental, LLC, 817 Vandalia Street, St. Paul, MN 55114

M.S. Wildlife Biology, University of Minnesota – Twin Cities; and B.S. Wildlife Biology, Michigan State University. Mr. McCarthy is an environmental compliance analyst with 15 years of environmental consulting experience working with various energy assets and regulatory agencies. As a compliance analyst he has managed the environmental requirements for facility siting, pipeline routing, federal licensing, and various federal, state and local permits. Mr. McCarthy is a certified wildlife biologist and in this role conducts and coordinates field studies, agency consultations, mitigation and avoidance plans.

Andrea Sampson

Associate Consultant
E3 Environmental, LLC, 817 Vandalia Street, St. Paul, MN 55114

B.A. Environmental Studies – University of St. Thomas, St. Paul, MN. Ms. Sampson is a compliance specialist and throughout her career she has emphasized energy related projects. Her experience includes providing permitting and siting support associated with energy transmission projects located across the Upper Midwest. Ms. Sampson has experience in all levels of federal, state and local permitting. She has recently worked on several ND PSC filings and has managed agency consultations and construction permitting related to these projects.

Judith Cooper. Ph.D.

Archaeologist/ Principle Investigator
SWCA, Inc., 116 North 4th Street, Suite 200, Bismarck, ND 58501

Ph.D. and M.A. Anthropology, Southern Methodist University and B.A. Anthropology, Pennsylvania State University. Dr. Cooper has over ten years of experience in North American archaeology and has worked on field (survey, testing, and recovery) and research projects in the northern Great Plains and Rocky Mountains. Dr. Cooper is experienced in federal and state cultural resources law and regulations, including Section 106 of the National Historic Preservation Act. As the Cultural Resources Lead in the SWCA's Bismarck office, she serves as a member of multi-disciplinary project teams to assure cultural resource concerns are appropriately addressed during the regulatory process.