Detroit River International Crossing Study
Drilling Program, Field Investigation Phase
Communications Protocol
Project Personnel

Prepared For:

The Corradino Group and
Parsons Transportation Group

NTH Project No. 15-050014-01

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1.0 INTRODUCTION

This document represents the communications protocol for the Detroit River International Crossing Study (DRIC) Drilling Program, Field Investigation Phase. The procedures outlined in this document will govern all communications among the project team, governmental agencies, the media, and the public, during the field investigation that will be conducted in the winter and spring of 2007.

Four types of situations requiring an effective means for communicating to the appropriate parties are planned for:

1) Normal project communications will be channeled through the project team in accordance with standard practices so information reaches those parties listed below having related responsibilities.

2) Communications regarding complaints or similar actions by non-project parties will be channeled to the Project Manager, Joseph Corradino via Drilling Program Ombudsman, Harvey Santana.

3) Events threatening personal safety or property confined to a drilling site, such as a fire, will be immediately reported via 911 with follow-up calls to the project health and safety officers, City of Detroit Personnel, and the project managers.

4) Events potentially threatening to the public (such as a hydrogen sulfide release) will be reported to potentially impacted persons by the Field Data Acquisition Project Engineer, Craig Johnson (or his designee), along with the appropriate precautions to take. An Emergency Call List will be established to provide a means for each household and business in the affected area to be called as quickly as possible in accordance with the Hydrogen Sulfide Contingency Plan. This plan was established as part of the MDEQ drilling permit process, and is attached for reference. Door to door evacuation will be handled by the Detroit Fire Department, in conjunction with the Detroit Police Department.

Contact List for Information Regarding Field Operations:

Name	Affiliation	Phone Numbers
Mohammed Alghurabi, P.E. Project Manager	Michigan Department of Transportation	**O: 517-373-7674**
Joseph Corradino, P.E. Project Manager	The Corradino Group	O: 248-799-0140
Regine Beauboeuf, P.E. Engineering Services Manager	Parsons Transportation Group	**O: 248-262-0013**
Fritz Klingler, P.E. Field Investigation Program Project Manager	NTH Consultants, Ltd.	**O: 313-237-3928**
Joseph Alberts, P.E. Data Analysis and Compilation	NTH Consultants, Ltd.	**O: 313-237-3911**
Craig Johnson Field Data Acquisition Project Engineer/ Geologist/ Geophysicist	NTH Consultants, Ltd.	O: 313-237-3917
Harry Price, P.E. Project Health and Safety Officer	NTH Consultants, Ltd.	**O: 313-237-3935**
Steve Innes, P.E. Environmental Issues	NTH Consultants, Ltd.	**O: 313-237-3955**
Ennis Smith, Drilling Engineer / Subcontractor Coordination	NTH Consultants, Ltd.	O: 313-237-3934
Kurt Warning, Drilling Engineer	NTH Consultants, Ltd.	O: 313-237-5357
Zachary Carr, Drilling Engineer	NTH Consultants, Ltd.	O: 313-237-3952
Sanket Gole, Drilling Engineer	NTH Consultants, Ltd.	O: 313-237-3933
Heather Audet, P.E. Drilling Engineer	NTH Consultants, Ltd.	O: 248-324-5279
Zach Kiefer Drilling Engineer	NTH Consultants, Ltd.	O: 313 237-3912

Gnanadesikan (Ram) Ramanujam, P.E.	SOMAT Engineering	**O: 313-963-2721**
DeWayne McCave Jeff Welch Ed Haines **(Drilling Subcontractors)**	Advanced Energy Advanced Energy Oil-Ex	**O: 231-369-2602**
Ken Moss	Baker Atlas	O: 989-773-7992
Bruce Marion	Z-Seis	O: 713-690-5880
Jason McCartney	Socon Well Services	O: 936-441-5801
Tom Parsons	All Terrain Services	O: 517-223-4290
Harvey Santana **(Ombudsman)**	The Corradino Group	O: 248-799-0140 **M: 313 580-1411**

2.0 SUMMARY OF WORK

There are a total of 14 sites within the overall project area from which boring equipment will operate. Each Crossing Location (X-10 and X-11) contains seven boring sites as shown on Figures 1 and 2.

Site Preparation: Each site will require installation of a drilling pad, surrounded by a fence, and an access road. The fenced-in areas will measure approximately 100 feet by 150 feet. On-site access roads, if necessary, will be approximately 10 feet wide, constructed of crushed stone. Site preparation activities are expected to take about 1 week for each site.

Drilling: Drilling equipment will consist of top-mounted, hydraulic drill rigs powered by on-site generators. Two - sets of drilling equipment may be operating at any one time, although only one drilling operation will be conducted at any given time on the City of Detroit/DEGC properties. At each crossing location, six holes will be drilled to a depth of approximately 1,500 feet and one hole to approximately 1,750 feet. The estimated drilling time at each site ranges from 7 days to 30 days. Drilling operations will run continuously, 24 hours per day, seven days per week. Although

disturbance to the surrounding community cannot be avoided, the drilling team will attempt to minimize noise, dust, unnecessary lighting at night, and other disturbances.

Crosswell Reflection and Downhole Geophysics: Crosswell reflection imaging and downhole geophysics will consist of downhole geophysical surveys of the boreholes, together with crosswell seismic imaging using hydrophones placed in one borehole and a piezoelectric energy source placed in a second borehole. This work will typically take place for a given borehole site immediately after the drilling is completed, and will be completed in two intervals, 3 to 5 days each. Although these operations will also be conducted 24 hours per day, seven days per week, disturbance to the surrounding public will be minimal.

3.0 INDIVIDUAL RESPONSIBILITIES

A limited number of people will be authorized to issue communications to parties outside the project team. All project personnel are instructed to limit their communications to the channels defined herein. Any requests for information from external sources shall be referred to the appropriate parties, identified herein. Specific project responsibilities are summarized as follows:

The Project Manager, Joseph Corradino, P.E. of The Corradino Group, has overall responsibility for the team of consultants contracted to provide these services. All communications with contacts outside the project team are his exclusive responsibility, except as otherwise described below.

The Engineering Services Project Manager, Regine Beauboeuf, P.E. of Parsons Transportation Group, is responsible for the services provided by the engineering services subconsultants on the project team.

The Geotechnical Services Project Manager, Fritz Klingler, P.E. of NTH Consultants, is also the Drilling Program Project Manager. He is responsible for overall delivery of the geotechnical services; as well as overall communications between NTH and the overall Project Manager (Joe Corradino), the Engineering Services Project Manager (Regine Beaubouf), all subconsultants to NTH, the MDOT geotechnical staff, MDEQ, OSHA, City of Detroit, and emergency services

personnel (i.e., police, fire, etc.). As indicated herein, certain communications responsibilities will be delegated by Fritz Klingler depending on the time of day, which persons are on site, etc.

Data Analysis and Compilation will be managed by Joe Alberts, PE. of NTH Consultants. He will be responsible for all data procurement and analysis on a day-to-day basis. Joe Alberts will also be responsible for the overall management of the drilling program at times that Fritz Klingler is not readily available (i.e., out of town).

The Field Data Acquisition Project Engineer (FDAPE), Craig Johnson of NTH Consultants, has overall responsibility for the acquisition of field data for this phase of the program and compliance with all aspects of the MDEQ drilling permits. In addition, during day-to-day operations, he will also be authorized to act on behalf of Fritz Klingler and provide communication and direction to all subconsultants to NTH Consultants, as well as MDOT geotechnical staff, MDEQ, OSHA, City of Detroit, and emergency services personnel. Daily reports and weekly summaries will be prepared by Craig Johnson and forwarded to the Project Manager, Joseph Corradino. Daily reports and weekly summaries with respect to hydrogen sulfide will also be prepared and forwarded to John Abbo/Brenda Ice at the Department of Emergency Management / Homeland Security and to Michael Gregory at the City of Detroit Department of Health and Wellness Promotion.

The Project Health and Safety Officer, Harry Price, P.E. of NTH Consultants, is responsible for overall project safety for NTH employees, ensuring other company employees have health and safety plans in place, and for overall compliance with MDEQ permit requirements regarding safety issues (general, H_2S, etc.). In addition, Harry Price is responsible for conducting safety orientations for all personnel visiting the site, as discussed in Attachment 2 – Project Safety Orientation.

The Environmental Issues Manager, Steve Innes, P.E. of NTH Consultants, will be responsible for compliance with environmental protocol as established by the MDEQ drilling permits, as well as right of entry and Environmental Plan agreements from the City and DEGC.

Subcontractor Coordination and Oversight on a day-to-day basis will be handled by Ennis Smith of NTH Consultants. In particular, he will coordinate and oversee all site preparation and

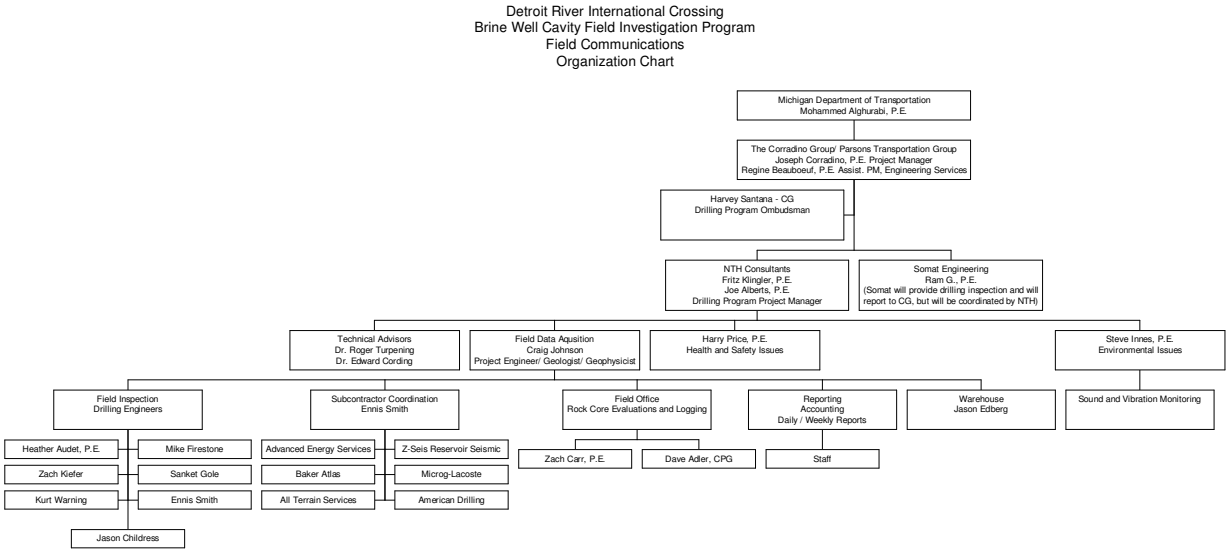
restoration of the drilling sites, and will assist the Field Inspection Drilling Engineers as necessary in oversight of contractors working at the drilling sites.

The NTH Drilling Engineers are responsible for overseeing activities at each of the drilling sites, observing the drilling operations and documenting the collection of data obtained from the drilling operations. The Drilling Engineers (along with Ennis Smith) also serve as the "eyes and ears" of the Project Team regarding any activities of on-site project team members and the activities of non-project personnel in the vicinity of the drilling sites. During times when Craig Johnson or Fritz Klingler (or their direct designees) are not on site, the designated Drilling Engineer in Charge will be authorized to act on behalf of them and provide communication and direction to all subconsultants to NTH, as well as MDOT geotechnical staff, MDEQ, OSHA, City of Detroit, and emergency services personnel. For any decision beyond the ordinary, the drilling engineer-in-charge will contact Craig Johnson or Fritz Klingler (or their designated representative) 24 hours per day, seven days per week and obtain input and assistance as necessary. The Drilling Engineer in Charge will have an orange high-visibility vest, as for easily identification by emergency services personnel.

Somat Engineering is contracted to provide drilling inspection services for this project for six of the ten rotary drilled borings. Somat is contracted to Corradino Group, but will be coordinated in the field by NTH Consultants. At any given time, Somat personnel on site will report any issues to the NTH drilling engineer-in-charge on site. Somat will also provide daily and weekly reports to Craig Johnson, for compilation into the overall daily and weekly field investigation reports.

Drilling Program Ombudsman, Harry Santana of Corradino, is responsible for addressing the minute-by-minute comment needs of the general public. He will also work with the Project Manager, Joseph Corradino, to address media inquires, complaints, and related matters. He will also be responsible for notifying the public where buses will be located in the unlikely event of an evacuation during drilling.

The following organization chart outlines the individual responsibilities and chain of command for the field investigation team.



4.0 SITE ACCESS PROTOCOL

Authorization to enter the boring sites will be limited to project personnel and personnel representing MDOT, FHWA, MDEQ, OSHA, City of Detroit, and news media that are properly equipped, have completed the "Project Safety Orientation Program" (refer to Attachment 2), and provide the required verification of orientation. In any case, news media personnel will be allowed on site only with the approval of the Project Manager, Joseph Corradino. Emergency personnel will be allowed on site as needed.

Limits Of Site: Prior to fences being erected, site limits will be defined by the Field Data Acquisition Engineer, Craig Johnson. The limits will be marked to delineate an area approximately 100 foot by 150 foot around each boring location, or larger as otherwise determined by the Field Data Acquisition Engineer. Spray paint or brightly colored ribbon will mark the temporary limits. Upon enclosing the sites with fencing, the fencing will define the site limits.

Safety Requirements and Project Orientation: All safety protocol for individuals entering and working on the drilling sites is the responsibility of the firm for which that individual is employed.

Overall safety requirements for the sites will be established by NTH, and are summarized as follows:

- All individuals working on site shall be self-contained, pressure-demand breathing apparatus trained (escape pack) and shall conform to the requirements of the Hydrogen Sulfide Contingency Plan, which is part of the drilling permit requirements, and is include herewith as Attachment 1.
- All individuals visiting the site shall complete the "Project Safety Orientation Program" (Attachment 2) as administered by NTH, and shall abide at all times by the requirements of the orientation. Appointments for safety orientation training will be made with Mr. Harry Price or Craig Johnson at least 48 hours prior to the planned site visit.

5.0 MEDIA AND PUBLIC RELATIONS

Prior to the start of field operations, the project team will prepare a package of information explaining the purpose, nature, limits, and duration of the Investigation Program. It will be made available at least 3 days prior to drilling through MDOT to the media, public, and City of Detroit personnel, as posted on the web site www.partnershipborderstudy.com.

Public Protocol/Procedures for Complaints: All inquiries, requests, complaints, and other communications from outside the project team shall be transferred through the organizational structure to the Project Manager, Joseph Corradino and to the Drilling Program Ombudsman, Harvey Santana as soon as practically feasible. The goal will be to respond to all inquiries, requests, complaints, and other communications from outside the project team within 1 hour, except for emergencies, which will receive an immediate response. Any person on the project team taking such inquiries, requests, complaints, and other communications from outside the project team shall assure the subject requester that their communication will be forwarded to the appropriate person and that appropriate action will be taken.

6.0 EMERGENCY PROCEDURES

Responding to emergencies and contacting the appropriate authorities or emergency responders shall be the responsibility of the on-site engineer-in-charge. After first contacting the appropriate authorities, the on-site engineer will contact Harry Price, then Craig Johnson, and Fritz Klingler. The on-site engineer-in-charge will then immediately contact Harvey Santana, Regine Beauboeuf and Joseph Corradino. Harvey Santana will then immediately contact Matt Allen or his alternate James Canning at Mayor Kilpatrick's office, Chief Katrina Butler at the Detroit Fire Department, James Tate at the Detroit Police Department, and R. Daryl Lundy of the City of Detroit Office of Homeland Security. The Delray Community Center will serve as the point to convene these and other communications personnel to review the facts of the situation, unless another site is designated. One person from the City of Detroit's communications personnel will be designated as the person to convey the public information about the emergency.

The NTH Drilling Engineer in Charge will bring a copy of the daily logs from the drill site. The logs will include the personnel onsite, as well as hydrogen sulfide concentration.

In the case of an emergency involving Hydrogen Sulfide, the procedures outlined in the Hydrogen Sulfide Contingency Plan (Attachment 1) will govern.

Hydrogen Sulfide Contingency Plan – PART I.

TO:	Distribution (DRIC Field Personnel)	***DATE:***	2/9/2006
		REVISED:	1/25/2007
FROM:	Craig R. Johnson, Proj Engineer Harry Price, P.E., H&S Officer Fritz Klingler, P.E., Project Manager	***PROJECT NO:***	15-050014-01
SUBJECT:	Hydrogen Sulfide Contingency Plan Detroit River International Crossing Brine Well Investigation Program		

1.0 INTRODUCTION

This Hydrogen Sulfide (H_2S) Contingency Plan (H_2S Plan) is prepared in accordance with, and as a requirement of, Michigan's Oil and Gas Regulations, Natural Resources and Environmental Protection Act No 451 of the Public Acts of 1994, Rules 324.1101 through 324.1130. These rules have been assigned and must be adhered to under permits to drill deep test borings obtained through the Michigan Department of Environmental Quality, Department of Geological Survey.

Historically, the Dundee Limestone Formation, clastic and non-clastic members of the Detroit River Group, and the dolomites of the Bois Blanc Formation and Bass Island Group are known to contain dissolved H_2S in the groundwater. The purpose of this H_2S Plan is to assist in providing employees, contractors, subcontractors, regulatory inspectors, and client representatives with the proper health and safety information involved with drilling operations during this project.

2.0 SCOPE AND APPLICATION

Michigan Administrative Code (MAC) R 299.2471 through R 299.2491 of Part 625 of the Natural Resources and Environmental Protection Act, Act No. 451 of the Public Acts of 1994 (Part 625) require that when the Supervisor of Mineral Wells or authorized representative suspects that H_2S may be encountered as an uncontrolled release in a mineral well (borehole), a contingency plan must be prepared to provide a "plan of action for alerting and protecting personnel at the well site

and the public in the event of an emergency involving release of hydrogen sulfide gas". The plan contains two parts. The first part contains general procedures that will be followed in case of a H_2S release. The second part of the plan is site specific.

The provisions of this plan cover all NTH employees, jobsite subconsultants, and all individuals (including the public) who may be exposed to emergency situations involving a potential H_2S release during drilling operations. This plan is applied to the 7 proposed boreholes at Crossing X-10 and the 7 proposed boreholes at Crossing X-11.

With respect to coverage of a subconsultant's employees, NTH shall inform subconsultants of the Hydrogen Sulfide Contingency Plan prior to the start of the subconsultant's scope of work. Subconsultants and anyone entering the jobsite must be familiar with all aspects of this plan and have taken the Project Safety Orientation. Emergency plans and procedures related to the H_2S Contingency Plan will be included in the orientation process. All persons allowed access to the site will be re-instructed in the emergency plans and procedures related to the contingency plan whenever there have been any changes in the plan.

3.0 BOREHOLE CLASSIFICATION AND REGULATION

Individual boreholes permitted under this Hydrogen Sulfide Contingency Plan are classified and regulated under R 324.1101 through R 324.1130 of Michigan's Oil and Gas Regulations, of the Natural Resources and Environmental Protection Act, Act No. 451 of the Public Acts of 1994. Specifically, boreholes permitted under the DRIC Drilling Program are considered to be "CL-IV H_2S Wells." According to R 324.1101 (g), 324.1102 (b) and (c), and 324.1102 (e)(iv), boreholes are considered CL-IV when they exhibit the following characteristics:

1. H2S gas content of not less then 300 ppm.
2. A 100-ppm radius of exposure of less than 30 feet, where radius of exposure is defined as "the distance from a point of release at which a specified concentration of hydrogen sulfide would occur if gas of a known concentration of hydrogen sulfide were released at a known rate."

According to R 324.1102 (e)(iv), boreholes to be permitted and drilled under the CL-IV classification must follow specific regulations. A list and brief summary of the specific regulations are as follows:

R 324.1101-2 - Definitions

R 324.1103 - States that a permittee of a well [borehole] shall ensure that metallic components of a well installed during the drilling are in compliance with or exceed the standards for use in a hydrogen sulfide environment set forth in the NACE Standard MR0175-2000, entitled "Sulfide Stress Cracking Resistant Metallic Material for Oil Field Equipment." The driller will provide certification that meets this criterion.

R 324.1104 – Requires permittee compliance with the regulations as stipulated under the permit, and applicable state and federal laws and regulations

R324.1106 – Requires the permittee to maintain minimum clearances (300 feet) from existing water wells, existing structures used for public or private occupancy, existing areas maintained for public recreation, or the edge of the traveled portion of an existing interstate, United States, or state highway.

R 324.1107 – Requires the permittee to be responsible for ensuring that all agents, employees, or other representatives of the permittee who are involved in the drilling on an H_2S well have received training from persons qualified in hydrogen sulfide safety.

R 324.1108 – Requires permittee to maintain security of borehole to ensure that anyone not authorized may not open the well. Once final casing has been installed, this does not apply.

R 324.1109 – Requires permittee of a borehole to maintain warning signs that have letters 1.5 inches tall and are legible at least 25 feet away under normal conditions.

R 324.1111 – A permittee of a well shall comply with **R 324 .1112 to 324.1116** no later than the time at which drilling reaches 500 feet above the projected top of the geological unit suspected of containing hydrogen sulfide gas.

R 324.1112 (2) The supervisor or authorized representative of the supervisor may require safety equipment other than that specified in **R 324.1102 (d)**, if necessary for the safety of the public or the workers.

R 324.1114 – Requires permittee of a borehole to install wind direction indicators at the drilling site.

R 324.1115 (6) – Requires permittee of the borehole to ensure that the rig floor and substructure of a CL-IV H_2S well is adequately ventilated to prevent accumulation of gas. A gas

meter with audio and visual alarms must be maintained if ventilation is inadequate to keep wellhead free from gas.

R 324.1115 (7) – Requires permittee to maintain safety equipment at site location at all times as described below.

R 324.1118 - Requires permittee to perform additional gas analysis at the request of the Supervisor or authorized representative.

R 324.1119 (3) – Requires permittee of a well to ensure that a warning sign that has the word "Danger" followed by "Poison Gas" is prominently displayed at the wellhead.

R 324.1120 through 1124 N/A

R 324.1126 N/A

R 324.1127 N/A

R 324.1128 (e) – Indicates the use of a hydrogen sulfide detection system is optional for a CL-IV H_2S well.

R 324.1128 (f) – Requires signs that contain the word "Danger" or "Caution" followed by the words "Poison Gas" shall be installed at the entrances of all access roads.

R 324.1129 N/A

R 324.1130 (1) N/A

R 324.1130 (4) N/A

4.0 PART 1 OF THE CONTINGENCY PLAN

Part 625 requires that a contact list of personnel and their duties and responsibilities be created for the contingency plan. This list includes a delegation of duties and responsibilities and specifies the MDEQ responsible for ordering the ignition of the well if it is deemed necessary. The list is as follows:

Table 1. Emergency Contact List

Client: The Corradino Group	Joseph Corradino, P.E. Office: (248) 799-0140 **Harvey Santana** **Cell: 313 580-1411**
MDEQ Southeast Michigan District Office MDEQ 24-Hour Pollution Emergency Alert System	Bruce Waldo (734) 953-8905 (800) 232-4706
Emergency Response Company: NTH Consultants, Ltd. (Permit Holder)	Project Engineer (Field Operations): Craig R. Johnson Office: (313) 237-3917 Health and Safety Manager: Harry Price, P.E. Office: (313) 237-3900 Project Coordinator: Joe Alberts, P.E. Office: (313) 237-3900 Project Manager: Fritz Klingler, P.E. Office: (313) 237-3900 **Cell: (313) 218-9961**
Drilling Contractor: Advanced Energy Services / Oil-Ex Inc.	DeWayne McCave **(231) 369-2602**
Detroit Police Department Commander Scott Kohls, Department Contact	**911 EMERGENCY**
Detroit Fire Department Harold Watkins, Department Contact	**911 EMERGENCY** O: (313) 596-5195
Detroit Medical Center **261 Mack Ave** **Detroit, MI**	**(313) 745-9900**
Detroit Office of Homeland Security and Emergency Management (OHS / EM) John Abbo, Emergency Preparedness Coordinator Brenda Ice	O: (313) 596-1742 O: (313) 596-5071
Detroit Local Emergency Preparedness Committee (DELPC), Sheila Finch, Chair	(313) 966-1297
Detroit Department of Health and Wellness Promotion Security (24-hour) Michael Gregory, Emergency Manager	(313) 876-4100 Pager: (800) 417-5879

City of Detroit Public Relations Mayor's Office – Matt Allen Alternate – James Canning Fire Department – Katrina Butler Police Department – James Tate	 (313) 224-3445 (313) 224-0526 (313 477-7762 (313) 743-3530
Mistersky Power Plant Head Power Plant Operations Phone Mistersky Gallery (Alternate)	 **(313) 267-4115** **(313) 267-4118**
City Recreation Center (Activation) 24-Hour Security Base Station Recreation Security Supervisor, Mr. Tyler Recreation Emergnency Mangament Liason, Herbert Simmons	 (313) 876-4279
Roberto Clemente Center Manager, Sue Norander	 O: (313) 224-0228
State Emergency Response Commission	(517) 373-7660
National Emergency Response Center	(800) 424-8802
U.S. EPA Region 5 Office 24-hour number	(312) 353-2318
CHEMTREC (chemicals, spills, fires, information)	(800) 424-9300

Preparedness Procedures

Primary and secondary briefing areas, although not specifically required according to the permit, will be designated at each drilling site. The primary briefing area will be the area upwind of the borehole based on prevailing wind characteristics. In case of unanticipated wind direction, a secondary briefing area will be established depending on prevailing conditions during drilling operations. Wind direction indicators will be visible from all normal workstations within the drilling site and will be installed to help facilitate the designation of the primary and secondary briefing areas. The safety equipment as defined in **R324.1102 (d)**, or other required safety equipment will be stored on site.

The site will require warning signs that have the word "danger" or "caution" followed by "poison gas" and visible construction fencing to restrict access of nonessential personnel. The warning

signs displayed will consist of English, Spanish, and Arabic languages. Street closure or traffic control may also be required depending on the location of the borehole and the concentrations of H_2S gas that are encountered.

Before the start of the job, all jobsite personnel may be required to complete a physical and have a fit test for the self-contained, pressure-demand breathing apparatus (SCBA), and be orientated with all elements of this contingency plan, H_2S awareness, escape routes, alarm signals used, means of reporting emergencies, and emergency assembly areas.

Equipment on Site

Sensors used to detect H_2S gas, although not required by the permit, may be located at the following locations during drilling, or until final casing has been cemented to depth:

1) The shale shaker or the point of first release of gas from the returning stream of drilling fluid.
2) On the drilling rig's floor.
3) In the substructure.
4) At the mud hopper.
5) At the top of the borehole.

Sensors will also be located on the perimeter of the job site in at least three directions with data logging capabilities.

The sensors will be calibrated, tested, and the calibration and test results recorded before drilling commences at each borehole. A visual and audible alarm must be activated if a National Institute for Occupational Safety and Health (NIOSH) ceiling limit of 10 parts per million (ppm) H_2S concentration is detected by any of the sensors. A full-face emergency escape self-contained breathing apparatus with a 10-minute air supply will be readily available to all members of the drilling crew and to other personnel required to be on the rig floor during drilling operations.

The rig floor and substructure of the borehole must be adequately ventilated to prevent an accumulation of gas. If natural ventilation is inadequate an electric or mechanical fan that operates constantly will be utilized.

The safety equipment as defined in **R324.1102 (d)** that is required to be on-site is as follows:

1) First aid kits.
2) Stretchers.
3) Blankets.
4) Portable dry chemical fire extinguishers.
5) Ropes.
6) Flare guns and flares.
7) Battery-operated lanterns.
8) Portable electronic hydrogen sulfide gas detectors.
9) Warning signs that have the word "Danger" or "Caution" followed by the words "Poison Gas."
10) Two copies of the Hydrogen Sulfide Contingency Plan.
11) Not less than two portable, self-contained, pressure-demand breathing apparatus that have a 30-minute air supply.
12) A supply of compressed breathable air or oxygen that is enough to recharge each SCBA at least once.

Notifications

The City of Detroit Emergency Preparedness Coordinator will be notified not less than 48-hours before drilling begins. It will then be the responsibility of the Detroit Local Area Preparedness Coordinator to notify and provide the DPD, DFD, and DHWP with site-specific contingency plans. Proof of notification must be retained and will be available upon request. The notification will include:

1) The drilling site location.
2) Confirmation the boring is likely expected to encounter H_2S.
3) Confirmation the contingency plan is available on-site.
4) Copy of the H2S Contingency Plan (site specific)
5) The number of expected businesses/residents that would be affected in case of emergency.

The project Health and Safety Manager will be informed that in the event of a required evacuation, the Detroit Fire Department in conjunction with the Detroit Police Department will perform the evacuations of the surrounding residences and businesses.

5.0 PART 2 OF THE CONTINGENCY PLAN

This section of the plan is site specific. A map that displays all existing structures used for public or private use, areas for public recreation, roads, and railroads within a 1,300-foot radius of each borehole will be provided at each drilling location. Both proposed corridors X-10 and X-11 have boreholes in close enough proximity to each other; therefore a single map from each corridor will be used.

The names, telephone numbers, and addresses of the following will also be included within a 1,300-foot radius of each location:

1) Seasonal and permanent residents.
2) Private businesses.
3) Schools.
4) Places of Worship.
5) Hospitals.
6) Governmental offices.
7) Parties responsible for the areas maintained for public camping or gathering.

Furthermore, the list will be refined to included individuals and family members that remain in their homes after receiving the pre-determined relocation stipend. This list will also be available onsite as part of this plan, and an additional copy provided to the Detroit Fire Department / Detroit Police Department.

6.0 HYDROGEN SULFIDE CONTINGENCY PLAN ACTIVATION

Based on historical data for the area, the H_2S concentrations in the boreholes are not expected to reach levels that would require evacuation or ignition of the boreholes. Nonetheless, if a complaint is lodged by the public because they believe the levels are creating a nuisance, at a minimum, then NTH will

visit the residence and measure over one hour the time-weighted average (TWA) of the H_2S and report such to the owner, and to the extent necessary, to MDEQ.

If perimeter sensors have readings of H_2S of 0.2 ppm or higher for more than 1-hour time weighted average (TWA), operations shall be suspended while attempts are made to correct the problem. If reasonable attempts are made to reduce the 1-hour TWA at the drilling site perimeter below 0.2 ppm, but the levels cannot be adequately reduced, drilling may resume, provided that the readings at the locations of adjacent residences and businesses are maintained below 0.2 ppm 1-hour TWA (per MDEQ requirements).

If a concentration of H_2S 10 ppm or higher is reached within the drill site for more than a 2-minute period of time, all personnel involved in the drilling will don escape packs and remove themselves from the work area. The workers will meet upwind at the primary briefing area for a head count by the site's designated head count personnel. The gas will be allowed to dissipate for approximately 10-15 minutes. If the H_2S levels have not subsided, alternative means of dissipating the gas will be discussed among the Geotechnical Services Project Manager, the Field Data Acquisition Project Engineer, the Health and Safety Manager, and the Drilling Engineers. They will contact City of Detroit Department of Homeland Security to discuss the situation as a precautionary measure to potential area evacuation.

If drilling is continued with a sustained concentration of H_2S at 10 ppm or greater, a self-contained breathing apparatus or combination full face-piece pressure demand supplied-air respirator with auxiliary self-contained air supply must be used by any workers in the designated work area.

Person(s) designated to conduct the headcount will be available every day and be familiar with all personnel within the work area. Alternate headcount personnel will be planned for, to account for vacations, illness, and other absences. Subconsultants or contractors are responsible for accounting for their personnel. The person(s) responsible for the headcount will have direct daily contact with each worker. The designated headcount person(s) will be familiar with all aspects of the Hydrogen Sulfide Contingency Plan and know how to contact the project Health and Safety Manager.

If the sensors at any point on the work site perimeter record an H_2S reading of 20 ppm or higher, drilling operations will be suspended immediately and 911 will be called. In turn, the City of Detroit Office of Homeland Security will activate the Detroit Department of Transportation, which will

provide buses to evacuate people from the area. The Corradino Group will augment that with two vans. The City of Detroit Office of Homeland Security will also activate agencies, such as, Occupational Health Services / Emergency Medicine, City of Detroit Health Department, and City of Detroit Public Relations Department, to coordinate the evacuation process for the residents and workers. They will be evacuated to designated safety areas. At the writing of this Plan, those areas are Patton Park and the Roberto Clemente Recreation Center. The City of Detroit Office of Homeland Security will activate the American Red Cross (ARC). The ARC will provide cots, blankets, pillows, toiletries, food and the like.[1] The Corradino Group will ensure adequate food is available for the evacuees by contracting with a caterer for three meals per day. The City of Detroit Office of Homeland Security will contact the Salvation Army, which will assist in the accommodation of evacuees by providing soup, hot chocolate and sandwiches. The Salvation Army will also provide blankets and clothing, as needed. And additional shelter, if needed, is available at the Salvation Army‘s "Acre of Hope" which is a gymnasium that can house up to 100 people. Pets will be evacuated in accordance with procedures to be provided by amendment to this plan, by January 29, 2007.

The evacuation will be declared over only when The Detroit Fire Department / Detroit Police Department give the signal for people to return to their residences or work.

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[1] The ARC has agreements with the various municipalities already set up; therefore, we do not have to create a contract or MOU with the ARC. In the event that additional supplies are needed, the ARC will then call upon their region office located in Cincinnati to deliver more supplies to the shelters.

Table 2. Concentration and Appropriate Action to be Taken

Concentration and Appropriate Action to be Taken		
Community Action Levels		
Concentration	**Action by Engineer and/or Driller**	**Additional action, if necessary**
Perimeter concentration of less than 0.2 ppm, 1-hour TWA **(<0.2 ppm)**	No required action, Normal drilling scenario	If non-project entity lodges a complaint, drilling engineer will relay information to Ombudsman and Craig Johnson. If TWA for 1 hour is <0.2 ppm, no further action is necessary, unless complaint by non-project entity is lodged. At that point, relay information to Ombudsman and Craig Johnson.
Perimeter concentration greater than or equal to 0.2 ppm 1-hour TWA **(≥ 0.2 ppm and < 10 ppm)**	Monitor concentration at the perimeter for one hour and determine TWA for H_2S. On-site personnel, position oneself upwind. Conduct continuous air monitoring.	If TWA for 1 hour is >0.2 ppm, stop drilling activity and make attempts to adjust drilling operation to reduce levels at perimeter to less than 0.2 ppm 1-hour TWA. If drilling operations cannot be modified to maintain perimeter concentration lower than 0.2 ppm 1-hour TWA, continue drilling only if levels at adjacent residences or businesses can be maintained less than 0.2 ppm 1-hour TWA.

Table 2.Continued

Concentration and Appropriate Action to be Taken		
Worker Action Levels		
Concentration	**Action by Engineer and/or Driller**	**Additional action, if necessary**
Greater than 10 ppm for 2-min TWA anywhere on drill site **(≥ 10 ppm)**	Measure H_2S concentration in employee's breathing zone for two minutes. If concentration is greater than 10 ppm for sustained 2-minute period of time, immediate leave area in an upwind fashion (determined by wind direction indicators). If concentration is greater than 10 ppm for sustained 2-minute period of time, and employee is unable to leave area in upwind fashion, don emergency escape respiratory protection and leave area. May work on-site in presence of this H_2S concentration but only if wearing SCBA **and** the perimeter concentrations are less than 0.2 ppm (1 hour TWA). IF either of these conditions are not possible, suspend operations temporarily.	Notify Detroit DHS as precautionary measure to potential evacuation.
>20 ppm instantaneous reading at any place on the work zone perimeter	Evacuate drill site per above. Immediately call 911. Evacuate surrounding area.	

ATTACHMENT 2

DRIC PROJECT SAFETY ORIENTATION PROGRAM

1. Purpose and Scope

This document is prepared to provide a summary of the procedures and content of the Detroit River International Crossing Project Safety Orientation Program, which will be established for the deep drilling program that will be conducted in fall and winter, 2006.

The goal of an accident-free job site can only be achieved through a cooperative effort of all members of the project team and their employees. All persons entering the project site limits as established by site safety fencing and/or markings at the drilling locations, shall attend this Project Safety Orientation Program. The specific topics that will be covered are as follows:

- Site Access and Security
- Health and Safety Plans
- Personal protective equipment
- Hydrogen Sulfide Management
- First aid
- Housekeeping
- Illumination
- Drilling Safety
- Fall Protection
- Flammable Hazards
- Hot work permits
- Confined space entry
- Excavations
- Lock out/tag out
- Hazard Communication
- Weekly safety briefings
- Accident reporting

2. Site Access and Security

- Security - The work area boundaries associated with this project that will be defined by chain link fences or snow fences, or temporarily by ground markings or caution tape.
- Site security shall include the following:
  a) Ensuring that on-site personnel are qualified to go into the areas where they are seeking access
  b) Ensuring that personnel sign in at the beginning of each shift – a log book shall be maintained in the onsite trailer
  c) Ensuring that authorized personnel conduct themselves in accordance with the established security and safety requirements
  d) Ensuring that adequate barriers and warnings are used to prevent site access by unqualified personnel
  e) Ensuring that the access road to the individual drill site is not blocked by construction vehicles
  f) Maintaining access for emergency and construction vehicles (in conjunction with the health and safety representative)
  g) Providing surveillance of equipment and pilferable items
  h) Ensuring that work areas are adequately marked and posted to give warning of restrictions to visitors
  i) Direct authorized visitors to the appropriate areas

- All personnel entering the site will sign in with the NTH Site Representative. Continuing access is further conditioned on adherence to established site policies and procedures.

3. Health and Safety Plan

- Employers are required to prepare a health and safety plan for their employees including training on hazard recognition and use of personal protective equipment.
- Employees must complete the Project Safety Orientation Program.
- Employers must certify that their employees operating cranes, forklifts, loaders, or other powered equipment are trained and/or certified to operate this equipment.

4. Personal Protective Equipment

- All personnel on site must wear hard hats in accordance with the requirements of 29 CFR 1926.100: Head Protection and ANSI Z-89.1 – 1986: Personal Protective Equipment for Industrial Workers and MIOSHA Rule 408.40621 Certification of Head Protection.
- All personnel on site must wear hand protection in accordance with the requirements of 29 CFR 1926.96: Criteria for personal protective equipment and MIOSHA Rule 408.40626 Body Protection.
- All personnel on site must wear foot protection in accordance with the requirements of 29 CFR 1926.96: Foot Protection, MIOSHA Rule 408.40625 Certification and use of foot protection and ANSI Z41-1991: Protective Footwear.
- All personnel on site must wear eye and face protection in accordance with the requirements of 29 CFR 1926.102: Eye and Face Protection, MIOSHA Rule 408.40623 Certification of face and eye protection and ANSI Z-87.1 1989. Tinted lenses not meeting these requirements shall not be worn on site. Tinted lenses are not permitted for drilling after dusk.
- All personnel on site shall wear work clothing meeting MIOSHA requirements for their individual work task in accordance with 29CFR1926.95 and MIOSHA rule 408.40617

5. Hydrogen Sulfide Management (prepared as a separate document and included as Attachment 1 to the Project Communications Plan)

This document includes the following, and will be reviewed as part of the Project Safety Orientation Program.

- Physical properties of Hydrogen Sulfide
- Effects of Hydrogen Sulfide on metals and elastomers
- Emergency escape procedures
- Location and proper use of safety equipment
- Locations of primary and secondary briefing areas
- Location and operation of Hydrogen Sulfide detection and warning equipment

- Corrective actions to be followed in an emergency
- Contents of permittee's contingency plan

6. First Aid

- Not less than 2 persons per crew shall be trained in emergency first aid procedures, including Red Cross approved or equivalent techniques of cardiopulmonary resuscitation. Adequate numbers of personnel are to be trained to ensure adequate staffing of trained individuals 24/7 (ex. allowing for vacation, illness etc.)

7. Housekeeping

The following rules are intended to maintain an orderly work environment and shall be followed by all persons working on site:

- Keep work areas free of work materials, debris obstructions and substances such as ice, grease or oil that could cause a surface to become slick or otherwise hazardous.
- Store materials safely.
- Stack materials at a safe height so that material will not fall if bumped.
- Keep all material, tools and equipment in a stable position (tied, stacked or choked) to prevent rolling or falling.
- Place all trash, waste, and scrap in proper containers designated or provided. Clean up all spills properly.
- Restrict smoking to designated areas.
- Store or contain material so that fire has no place to start.
- Clean tools and work areas as job progresses in an orderly manner.
- Maintain clear access to all work areas.
- Keep walkways clear
- Police work areas **DAILY** and dispose of debris in dumpsters or off site in accordance with requirements set forth by NTH, EPA and other regulatory agencies.
- Promptly remove unused or excess/scrap materials from the site.
- Promptly remove scrap lumber, waste material, and rubbish as the work progresses. Remove nails and screws in scrap lumber so as not to present impalement hazards.
- Prohibit burning of waste material or debris.

- Keep all solvent waste, oily rags, and flammable liquids in fire resistant covered containers until removed from worksite.

8. Illumination

- Each area must have adequate lighting for personnel to safely perform work activities and identify potential hazards. While work activities are in progress, access ways and site work areas will be sufficiently lighted. A minimum of illumination intensity of 10 foot-candles will be provided on a jobsite where construction work is being performed.
- A minimum illumination intensity of 5 foot-candles shall be provided to areas on a jobsite where work is not being immediately performed but through which workers may pass.
- A minimum illumination intensity of 50 foot-candles shall be provided at the first aid station.

9. Drilling Safety

- Do not position the rig on slopes or unstable soils close to traffic hazards or other recognizable hazards.
- Situate the drilling rig so prevailing winds blow from the rig to the mud pits.
- Three wind streamers, located at treetop and at least eight feet from the ground should be illuminated at night.
- Keep flammables in properly marked approved containers and stored away from sources of heat.
- Position drill rig at least 20 feet away from power transmission lines. Don't position drilling location under or near overhead lines if at all possible. Before setting up the rig mast, stop and survey the entire area – up, down, left and right. Determine the minimum horizontal distance from any point on the drill rig to the nearest power line when the mast is raised and/or being raised. If this distance is less than 20 feet, consult the local utility company and refer to OSHA 29 CFR 1910. 333 before commencing operations. Be particularly alert to dangers resulting from raising pipe or the drill mast during windy conditions (both hoist lines and power lines can move) or drilling during thunderstorms (when the elevated drill mast is susceptible to lightning strikes). – Note: Drilling will be ceased during thunderstorms.

- Employees or spectators must not position themselves where they can be struck or can lose their balance if the drill pipe slips loose or sticks.
- Avoid the hot exhaust mufflers of the mud pump or drill rig engines.
- Always cover the borehole/well casing after completion and prevent tools or other debris from falling in (this can render a hole unusable!).
- Take precautions against slips and falls (particularly where there is wet clay).
- Avoid improper lifting excessively heavy or bulky loads of pipe, cement sacks, drill additives, etc. that could cause back strain. Use your legs to lift not your back. Avoid twisting your body.
- Keep spectators behind a clearly defined barrier and operate the drill from a position where it is easy to reach all the control levers.
- Maintain equipment in good working order and to ensure that the area around the drilling rig is kept tidy and in good order.
- All onsite individuals should be aware of the position of the Emergency shutdown switch(s).

10. Fall Protection

- Any work performed from a height of six feet or greater (excluding ladders and use of scaffolds where fall protection if required at height of 10 feet) requires the use of fall protection. Fall protection can be provided using guardrails or other fall prevention measures **or** using a full-body harness attached to an anchorage point capable of withstanding 5000 pounds of force. Prior to an employee donning a full body harness, the employee shall be trained in the proper use of Fall Protection.

11. Flammable Hazards

- Flammable hazards may be encountered, during the course of this work, due to the presence of methane gas and possibly other flammable solvents. Hydrogen sulfide (H_2S), which is flammable at high concentrations, may also be present. If hydrogen sulfide odor is detected (smell of rotten eggs), on-site personnel are to be positioned upwind and shall use a meter that measures the concentration of hydrogen sulfide before resuming work. After initially smelling H_2S, one may no longer smell it due to olfactory paralysis. Only use of a meter will ensure determination of H_2S present in

the atmosphere. If excessive concentrations of methane are encountered while drilling (greater than 10% of the LEL), allow it to dissipate to a concentration of less than 10% of the Lower Explosive Limit (LEL) as measured by a tri-gas or quad-gas meter, before drilling may resume**.** Smoking is prohibited within 50 feet of fuel storage areas or drilling area

- Contractors should comply with the OSHA 29 CFR 1926.152 Flammable and Combustible Liquids standard. This regulation provides safe methods for handling and storing flammable and combustible liquids and preventing explosions and fires.
- A “safety can” (an approved container of not more than five (5)-gallon capacity having a spring-closing lid and spout cover that has been designed so that it will safely relieve internal pressure when subjected to fire exposure) shall be provided by the driller at each drilling site.
- Only approved containers and portable tanks will be used for storage of flammable or combustible liquids. No more than twenty-five (25) gallons will be stored in a room outside of an approved storage cabinet. Storage cabinets will be labeled with conspicuous lettering, "FLAMMABLE - KEEP FIRE AWAY."
- Storage areas will be kept free of weeds, debris, and combustible material not necessary to the storage. Tanks and containers should be conspicuously marked with the name of the product they contain and "FLAMMABLE - KEEP FIRE AWAY." "NO SMOKING" signs will be posted in these and all other hazardous areas.
- Storage areas will be diked in accordance with Michigan standards and provide for rainwater removal. A method shall be in place for removal of rainwater following each rain. Where possible, all outside fuel storage tanks should be of double-lined construction. In the absence of double-lined tanks, the area will be diked to hold the tank contents.
- Static grounding lines shall be provided for all storage containers.
- Transfer of flammable liquids from one container to another will be done only when containers are electrically interconnected (bonded). Drawing or transferring will be done only through a closed piping system from safety cans by means of a device drawing through the top, by gravity, or pumped through an approved self-closing valve. Transferring by means of air pressure is prohibited.

- Dispensing devices and nozzles for flammable liquids will meet regulatory standards. Flammable and combustible liquids will not be used within fifty (50) feet of open flame or other source of ignition. "NO SMOKING" signs will be posted in appropriate areas. Flammable and combustible liquids will be kept in closed containers when not actually in use.
- Fire extinguishers will be present at the following locations: NTH trailer, on drill rig, and in all DOT-regulated vehicles. If a small, contained fire breaks out, chemical fire extinguishers should be used to bring the occurrence under control.
- Disposal of flammable and combustible liquids will be in accordance with regulatory agency (i.e., Environmental Protection Agency) requirements.
- At least one (1) portable fire extinguisher having a rating of not less than 20B will be located outside of, but not more than ten (10) feet (3.5 meters) from, the door of the room used for storage of more than sixty (60) gallons of flammable or combustible liquid. At least one (1) portable fire extinguisher having a rating of not less than 20B will be located not less than twenty-five (25) feet (7.73 meters) or more than seventy-five (75) feet (22.88 meters) from any flammable liquid storage area.
- At least one (1) portable fire extinguisher having a rating of not less than *ABC* will be provided on any vehicle loading, transporting, or dispensing flammable or combustible liquids and in all service and refueling areas within seventy-five (75) feet (22.88 meters) of each pump or dispenser.

12. Hot Work Permits

Authorization of Hot Work must be approved prior to commencing such work. Hot work permits must be posted in areas of operation. All criteria for the hot work will be noted on the permit and will be followed. A fire watch must be maintained for a minimum of 15 minutes after hot work has been completed or for as long as needed after hot work to ensure no fire develops.

13. Confined Space Entry

- Only employees who have been trained in the hazards associated with Confined Space Entry (CSE) and are knowledgeable in the use of CSE equipment may perform a CSE. If a confined space must be entered, an attendant and entrant are both necessary. The

Geotechnical Services Project Manager and Health and Safety Officer must be informed prior to CSE commencing. Prior to entry, at a minimum, testing of the air in the confined space **and** a CSE permit **must** be completed. All participants in the CSE should be aware of the potential hazards associated with the CSE agree upon the criteria to terminate the CSE, and emergency procedures.

- An NTH CSE permit or an authorized equivalent shall be completed and if any hazardous conditions are encountered during the execution of the confined space, the Health and Safety Officer shall be notified. A copy of the permit upon completion of entry will be provided to NTH. In accordance with 29 CFR 1910.146, a company who performs an entry shall retain a copy of the CSE permit in the project files for one year upon completion of entry.
- Provisions for Confined Space Rescue services must be provided in accordance with CSE regulations.
- All CSE must allow a means of retrieving personnel. A method of communication must be in place while the entry is taking place. At no point will the continued execution of the project supersede the safety of the personnel.
- Ventilation of confined spaces shall meet the OSHA/MIOSHA requirements. While not specifically addressed in the CSE standards, the following requirements are addressed in the Underground Construction Standards. Briefly, 200 cubic feet of fresh air per minute shall be provided for each entrant when performing underground construction and when using diesel equipment, each brake horsepower of a diesel engine requires at least 100 cubic feet of air per minute for suitable operation in addition to the air requirements for personnel. A minimum linear velocity of 30 feet per minute shall be maintained in gassy or potentially gassy conditions. Potentially gassy or gassy operations shall have ventilation systems installed that are constructed of fire resistant materials and have acceptable electrical systems including fan motors.

14. Excavations

- Excavations may be entered only if someone outside the excavation is available to observe and provide assistance.
- Do not enter an excavation if soil is loose on the sides or if the sides otherwise appear unstable.

- Enter an excavation deeper than five feet only if the sides are sloped or shored and it confirms with the OSHA excavation standard. Any excavations less than 5 feet in depth are to be effectively protected when visible observation indicates that hazardous earth movement may be expected.
- Barricade any open excavations or pits left unattended.
- An excavation or trench, more than 4 feet in depth, shall have as its means of access a ramp or ladder. If an employee's task involves performing tests in a trench, the ramp must be made up of material stable enough so that a person can walk into and out of the trench.
- Ladders used to exit from a trench shield should be tied off and extend 3 feet above the trench shield.

15. Hazard Communication

- As required in OSHA 29 CFR1926.59, all personnel exposed to materials will be trained in the use of the materials, the required personal protective equipment, and the emergency procedures associated with the materials they will be expected to use. All employers will ensure that personnel are trained and know the location of the written Hazard Communication Program. All personnel will have access to Material Safety Data Sheets (MSDSs) and to Project MSDSs for all materials to which they may be exposed.
- Subcontractors are required to provide the Health and Safety Officer with a copy of their MSDSs and a binder will be maintained in the NTH trailer. This requirement does not relinquish the subcontractors from maintaining their own copies of MSDSs. Under the OSHA Hazard Communication Standard, each employer has the responsibility to:
    a) Inform employees about hazardous chemicals in their work area upon initial assignment and whenever a new hazard is introduced.
    b) Verify all containers are labeled as to their content and hazards and that labels are legible and not removed.
    c) Inform workers of hazards when performing non-routine tasks
    d) Inform other employers of the hazardous chemicals their employees may be exposed to while working and any precautionary measures that must be taken

to protect these employees during normal operation conditions or foreseeable emergencies.

- Subcontractors will have the responsibility of ensuring that each of their employees is trained on hazardous chemicals. The training shall meet the requirements of 29CFR 1926.59.

16. Weekly Safety Meetings

- Each employer should conduct a weekly meeting for his employees such that all shifts are covered.
- As a part of each meeting, hydrogen sulfide safety should be reviewed and well as any recent safety incidents.
- A signed copy of each meeting should be provided to the NTH field representative.

17. Accident Reporting

- Project personnel will immediately notify the NTH Field Data Acquisition Project Engineer (Craig Johnson) about any injury/illness, accident, incident, near miss, or any other unplanned event that may be a violation of a regulatory requirement.
- If a subcontractor experiences an incident, they shall submit a comprehensive written report of findings and corrective action taken to prevent a similar incident form reoccurring within one working day. The Health and Safety Officer will also thoroughly investigate the incident. Examples of incidents that must be immediately reported include but are not limited to H2S gas exposure, methane gas exposure, near-misses, fires, utility strikes, vandalism, equipment failure, and spills and leaks. All subcontractors are responsible for investigation of any incident as soon as possible.

  NTH will follow the requirements of MIOSHA and project policies and/or procedures for reporting and tracking of all accidents, injuries and illnesses.

ATTACHMENT 3

Evacuation Checklist
Protocol for H_2S Exposure - Evacuation Guidelines

I. Continuously monitor potential H_2S gas emissions from wellhead, first incidence location of returning drilling fluid stream (shale shaker), and secured drilling site locations.

II. **Equal to or Below 10 ppm**, no additional action required. Continue to perform drilling operations and monitor gas conditions.

III. If H_2S gas concentration **exceeds 10 ppm** at the wellhead, shale shaker, or any other location within secured area:

1. Monitor concentration in employees breathing zone for two minutes. If concentration remains **above 10 ppm**, SCBA must be utilized to continue drilling operations.

2. Monitor H2S concentrations at drilling site perimeter and verify that concentrations **do not exceed20ppm.**

IV. If H2S gas concentrations **exceed 20 ppm** at the perimeter, immediately cease drilling operations (closure of BOP device if wellhead is the H2S gas source), sound three blasts from an airhorn, and assemble at the designated primary/secondary briefing area.

1. Call Harry Price and Craig Johnson with NTH Consultants, Ltd. @ Cell: (313) 475-0519 and (313) 350-0393, while conducting head count of on-site personnel.

2. Contact Detroit Police/Fire by calling 911. Enact automated business/resident site-specific phone list.

3. Comply with all aspects of Section 6.0 of the Hydrogen Sulfide Contingency Plan dated January 25, 2007.

4. Resume drilling operations only after discussion and agreement with The Corradino Group, Parsons, NTH Consultants, Ltd, and City of Detroit personnel.

Attachment 4

MISTERSKY POWER STATION
EMERGENCY PROCEDURE

In the event of an Emergency at The Misterskv Power Station, all employees/contractors **MUST** follow the instructions listed below. Certain essential Operations Personnel will remain with the plant equipment to maintain services within the plant.

ALERT: **5 short blasts from "IRON MIKE"** will signal an emergency situation within the Power Station.

ASSEMBLY: All plant personnel will **IMMEDIATELY** evacuate their location and re-assemble inside the **MACHINE SHOP**, 1st Floor for the purposes of employee count and further instructions.

SUPERVISOR Will take personnel count of their respective employees to determine if there may be any unaccountable employees left behind.

ELECTRICAL SUPERVISOR (Joseph Manalel)
(Carl Taylor, Substitute)
All Electricians & Contractors

MAINTENANCE SUPERVISOR (Gary Spann)
(Ray Forney, Substitute)
Machinists, Steamfitters, Millwrights, Contractors

ADMISTRATIVE STAFF (N.Setkerman)
(Samuel Geovargacas, Substitute)
All Office & Plant Laboratory Staff

OPERATIONS PERSONNEL:
Will remain at their duty station until contacted by the H.P.P.O. **IF RELEASED** they are to proceed to the Machine Shop and report in to the Maintenance Supervisor above.

SECURITY: Main Gate Security will direct response vehicles as necessary. Main access drive and parking lot are to remain free of employees. In case of evacuation security will **contact** Administrative Staff

All employees are asked to assist wherever and whenever necessary during an emergency. Carrying flashlights is highly recommended for personnel working in the Interior of the plant.

In any event, **DO NOT LEAVE THE PREMISES UNLESS DIRECTED TO DO SO BY YOUR SUPERVISOR.**

Safety Directive
February 10, 1999
April 5, 2006 (Revised)
October 22, 2006 (Revised)
December 13, 2006 (Revised)
January 5, 2007 (Revised)

Approved:

Ronald Wiggins, General Manager