



FUGITIVE DUST MITIGATION PLAN

DEMOLITION SITE:
Former Crawford Power Plant
3501 S. Pulaski Road
Chicago, Illinois 60623

PREPARED FOR:
Heneghan Wrecking Co.
1321 W. Concord Place
Chicago IL, 60642



Specialty Consulting Services

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May 8, 2020

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Prepared by:

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SIGNATURE PAGE

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5/8/2020

Jigar Shah, CIH, CSP
Director, Industrial Hygiene & Safety

Date



5/8/2020

Joseph Frendling, Jr. CSP, ASP, CHST
Corporate Safety Director

Date

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1.0 INTRODUCTION

This Fugitive Dust Mitigation Plan (FDMP) describes the procedures that will be implemented to control the fugitive dust emissions during the demolition activities at the Former Crawford Power Plant Project Site located at 3501 S. Pulaski Road in Chicago, IL (“Site”). During the implementation of the FDMP, steps will be taken by the demolition contractor, Heneghan Wrecking & Excavating (HWE), to identify all potential sources of dust emissions and provide effective dust-mitigation measures to minimize visible fugitive emissions at the Site and to prevent offsite migration of fugitive dust. GSG-Probe Consulting (GSG) will provide onsite monitoring to verify the implementation of dust-mitigation measures. A list of the key personnel for this project is provided as Attachment A. The goal of this FDMP is to protect human health and environment during the demolition and related handling of materials at the Site. The FDMP addresses sources of fugitive dust, control measures, monitoring, recordkeeping and reporting.

1.1 Purpose and Objectives

The purpose of this FDMP is to prevent offsite migration of fugitive dust from the Site. The objectives of this mitigation plan described herein are as follows:

- Identify each potential source of dust emission (HWE)
- Develop and implement mitigation measures for each potential source (HWE)
- Conduct visual monitoring to ensure effective implementation of dust-mitigation measures (GSG)
- Review and enhance dust controls as needed to meet the project goals (HWE, GSG, Hilco)
- Establish recordkeeping and reporting (HWE, GSG)

2.0 POTENTIAL SOURCES OF FUGITIVE DUST AND PROPOSED DUST-CONTROL MEASURES

As part of this FDMP, HWE is required to identify and mitigate all potential sources of fugitive dust emissions at the site. Dust controls shall be implemented by HWE in accordance with this plan and as necessary to prevent offsite migration of dust. Dust controls will be required within the project limits, regardless of whether active demolition is occurring or not. It is understood that dust control will be achieved primarily through the application of water (City of Chicago water from hydrants and stormwater collected onsite, to the extent consistent with stormwater permitting and applicable law) using pump, hoses, water trucks and/or airborne water-spray systems.

At the Crawford Power Plant Demolition project site, fugitive dust emissions are likely to be generated from the following site activities. Proposed dust-control measures for each of these activities are described here:

2.1 Structural Demolition– Demolition work will be completed by HWE utilizing high reach excavators, hydraulic excavators, wheel loaders, and skid steers in order to raze the remaining Crawford Station structures.

2.1.1 Turbine Hall, and Associated Coal Conveyor Bay and Hopper

High Reach excavators equipped with shears will dismantle the remaining Turbine Hall, Coal Conveyor Bay, and Hopper in a top down, bay-by-bay manner to the extent they can be reached from grade. Once the upper decks are removed, the standard reach excavators

equipped with processors and shears will remove the lower decks, equipment, and masonry in a bay-by-bay manner top-down. The Bays will be worked primarily in an East to West manner completing each structure separately. Prior to beginning work at each day shift, the structure will be sprayed down and thoroughly wetted utilizing a combination of water trucks, dust bosses, direct spray and equipment mounted dust suppression equipment. These areas will have dust bosses and direct spray continuing throughout demolition activities to control emissions. The structure and ground surrounding the Turbine Hall and associated units, including any ground that could be impacted by the demolition, will be wetted thoroughly prior to and during the razing effort. The Turbine Hall being taken down will have a top-down watering prior to being razed creating a waterfall effect to control and minimize dust emissions. During the razing event, dust suppression equipment and additional water will be utilized and applied strategically based on weather conditions, wind direction, and building demolition lay-down plan to minimize emissions. All known asbestos-containing material (ACM) was removed from the Coal Conveyor and Hopper structures during the abatement phase of the project. If any suspect ACM is discovered during demolition by HWE's supervisor, demolition activities will be stopped immediately. The suspect material will be sampled for ACM and appropriate remedial actions, in compliance with all applicable regulations, will be put in place to address it. HWE and GSG will have a GSG inspector present on-site at all times during the course of demolition activities to visually monitor all work and adjust engineering controls as needed.

2.1.2 Sorting and Substructure Removal

Once the sections of the Turbine Hall and related structures are demolished to grade,

materials will be segregated for disposal by support equipment. Work will be phased to stop structural demolition activities at a safe point prior to the end of each shift. Stockpiled materials will be wetted periodically during each shift and visually inspected in accordance with Section 2.3 and Table 2 of this FDMP. Dust suppression equipment will be adjusted as needed. All materials will be sorted and segregated as work progresses in order to maximize recycling efforts. Haul-off of the materials not being stockpiled for reuse will be continuous as work progresses in order to minimize any processed materials on-site. Once Turbine Hall demolition is completed, work will commence on slab-on-grade and foundation removal in the affected area. This process will be completed utilizing hydraulic excavators equipped with buckets, breakers and wrecking balls to break concrete in manageable sections. Slab and Foundation areas will be wetted before demolition of these areas commences. Dust suppression equipment will be in place and direct spray will be utilized to reduce the potential for source emissions. HWE and GSG will visually monitor all work throughout the shift and adjust engineering controls as needed to minimize emissions.

Wind conditions will be monitored through the National Weather Service the evening before any demolition or related material handling activities are scheduled to occur. In the event that sustained wind speeds are projected to exceed 15 mph, or wind gusts are projected to exceed 20 mph, no above-grade demolition or related material handling activities will take place the next day. Above-grade structural demolition or related material handling activities will not be performed when windy conditions (the sustained wind speed above 15 mph or wind gusts above 20 mph) arise or are predicted, as measured by the National Weather Service. Below-grade (e.g., basements), non-structural demolition-related activities and material loading activities of non-

fugitive dust emitting materials (e.g., steel) will be allowed to continue only if such activities are not reasonably anticipated to result in fugitive dust emission and by following Sections 2-5 of this plan. Furthermore, demolition and any related material handling activities will be immediately stopped if visible emissions of fugitive dust are observed. HWE and GSG will review work procedures and site conditions in order to identify the source of the visible emission and devise corrective actions. Work will not resume until such corrective actions are developed and implemented by HWE to prevent reoccurrence of the visible emission event. Each work stoppage, the cause identified, and the resulting corrective action will be documented in daily project logs.

2.2 Crushing Activities – Prior to crushing, HWE will thoroughly wet down the material to be crushed. During the crushing of the material, HWE will at all times utilize a water-spray system to minimize fugitive emission. Crushing activities will be temporarily halted during windy conditions (as described above), or if visible emissions of fugitive dust are observed during demotion activities so that additional control measures can be implemented as described above.

2.3 Stockpiles – HWE will keep the stockpiled material/debris wet to minimize dust emissions. HWE will use the airborne dust suppression system to spray water on the stockpiled areas at all times as material is being added to or removed from the stockpiles. Material addition to or removal from the storage piles will be temporarily halted during windy conditions or if visible emissions of fugitive dust are observed during addition or removal of material to the storage

piles in the manner described in Section 2.1. In addition, water will be applied to the storage piles at the end of each day and at least 2 additional times per day if material has not been added to the stockpiles. The stockpiles containing Galbestos will be handled by a licensed asbestos contractor utilizing “wet methods”. These procedures are provided in “Galbestos Removal Work Plan” document.

2.4 Demolition Excavation – Wet methods will be utilized during the excavation of building foundations, underground utilities and other below grade structures to prevent dust generation and emissions. HWE will spray water on the soil/ground to be excavated in advance of commencing excavation activities, and at minimum once per hour will wet the excavated area as well as the immediate area surrounding the excavation as the activities progress. Dormant excavations areas will be monitored daily and wetted per Tables 1 and 2. Excavation activities will be temporarily halted during windy conditions or if visible emissions of fugitive dust are observed so that additional control measures can be applied as described in Section 2.1.

2.5 Truck/Equipment Traffic on Paved/Unpaved Roads – All trucks used in the transportation of demolition debris will be loaded so as to minimize fall height and the potential for dust emissions resulting from the truck-loading process. HWE shall wet down each segment of paved and unpaved roads as depicted in the diagram enclosed as Attachment B at least twice per day with additional treatments as necessary based on weather conditions and visual observations. Water will be sprayed by water trucks to minimize fugitive dust emission from the movement of the haul trucks and demolition equipment. Care will be taken to water the roads without creating unnecessary muddy areas and problems with track-out. HWE will setup a

wash station(s) at the exit point to remove dirt from the trucks leaving the project area(s) to control the tracking of the dirt onto the paved roads and/or other parts of the site. Additionally, all trucks carrying demolition debris, with the exception of those trucks carrying exclusively scrap material, leaving the project site will be covered with tarp. Trucks will be inspected upon entering and exiting the site. The material being handled and/or transported onsite by trucks or mobile equipment will be kept wet to prevent fugitive dust emissions. For all onsite truck/equipment movement, a speed limit of 8 mph will be enforced by HWE. Dust mitigation instructions will be provided to truck operators regarding dust mitigation best practices consistent with this FDMP. Street sweeping services will be employed on an as-needed basis offsite on public right-of-ways. Onsite street sweeping will be employed on a daily basis. Street sweeping activities will be tracked in daily logs as discussed in Section 5 of this FDMP. A street sweeping company will be on a stand-by basis and deployed as needed based on daily activity. Proactive and preventative measures such as truck tire rumble strips and onsite haul road sweeping will also be implemented to reduce tracking on public right of ways.

TABLE 1. POTENTIAL SOURCES OF DUST EMISSIONS AND PROPOSED CONTROL MEASURES

Activity	Proposed Dust Control Measures	Verification Method
Demolition	Wet down material before demolition, use water-spray during demolition, keep ground wet for falling debris	Daily Visual Monitoring
Crushing	Wet down material before crushing, use dust suppression system during crushing	
Stockpiles	Keep material wet by applying water-spray onto piled debris	
Excavation	Use wet methods during excavation, apply water on ground/soil to be excavated	
Truck/Traffic Movement	Wet down paved and unpaved roads as needed per weather conditions, provide wash stations to prevent tracking-out, tarp cover for trucks leaving project site	

3.0 VISUAL MONITORING

The GSG inspector will conduct visual monitoring of all dust-generating activities at the site. Prior to start of every shift, the inspector will review the scope of work and associated dust control measures to be utilized for each activity on that shift. Meteorological conditions forecasted (by Weather Channel) for the work day will be reviewed and discussed with HWE. Appropriate changes (due to weather conditions) will be implemented as needed. While conducting visual monitoring of all demolition related activities, any observation of visible fugitive dust emissions will be recorded and reported to HWE immediately. HWE, at this time, will temporarily halt all applicable dust-generating activities and review the dust-control measures. The reason(s) for the visible fugitive emission event will be discussed in detail by GSG and HWE, and HWE will implement necessary changes to existing dust-control measures so that it does not happen again. The inspector will document all such events in project logs. These events will be discussed in daily briefings and weekly meetings to inform HWE and its crew.

The description and minimum frequency of visual monitoring activities by GSG personnel are outlined in Table 2 on the next page.

TABLE 2. VISUAL MONITORING ACTIVITIES AND FREQUENCY

Activity/Area	Description	Frequency
Demolition Areas	Each demolition area will be observed for the presence of visible emissions and the application of required control measures.	3 times per day and at all times during active demolition
Crushing	Each crushing area will be observed for the presence of visible emissions and the application of required control measures.	3 times per day and at all times during crushing
Stockpiles	Each stockpile will be observed for presence of visible emissions and the application of required control measures.	3 times per day and during addition to or removal from stockpiles
Excavation Areas	Each demolition excavation area will be observed for the presence of visible emissions and the application of required control measures.	3 times per day during active excavation as well as when excavation activity is not occurring
Truck/Traffic Movement	Each segment of roadway or traffic area will be observed for the presence of visible emissions and the application of required control measures.	3 times per day
Site Boundary	The property line(s) downwind of operations will be observed for the presence of visible emissions.	3 times per day and at all times during demolition

4.0 CONTINGENCY PLAN

The demolition and other related site activities are required to be conducted in a manner that prevents offsite migration of fugitive dust. Any observation of fugitive dust emission will require a response from the HWE in terms of performing a detailed review of site activities and dust control methods and then modifying the procedures and/or improving of the dust suppression methods. These include but are not limited to:

- Increase frequency, volume, and/or coverage of water misting, sprays, and foggers to prevent debris and soil from drying.
- Provide additional dust suppression systems and operating personnel during the task duration.
- Reduce the pace of, or cease, dust producing activity until the problem is corrected.
- Remove accumulated debris and soil from problematic areas, and/or cover, enclose, or isolate dust generating areas/surfaces to shield them from the wind.
- Modify operating procedures and methods to eliminate problematic conditions.
- Increase level of worker awareness and train them on implementation of any new or modified operating procedures.

5.0 RECORDKEEPING AND REPORTING

5.1 Recordkeeping – The following records shall be maintained onsite in written and electronic form.

5.1.1– Records of Visual Observation Logs

The records of visual observations shall contain the following information:

- Name and address of source
- Type of record
- Observer’s name
- Weather conditions
- Wind speed and direction
- Wind gust speed and direction
- Time and date of observation
- Duration of observation
- Area or operation observed
- A determination if dust was observed
- Corrective actions taken if visible emissions were observed

5.1.2 – Sweeping and Watering Logs

The sweeping and watering logs shall contain the following information:

- Name and address of source
- Type of record
- Individual’s name
- Street sweeping conducted
- Weather conditions
- Wind speed and direction
- Wind gust speed and direction
- Time and date of treatment
- Area or operation treated
- Type of treatment conducted

5.1.3 – Retention of Records - All records will be retained for a minimum of three (3) years and be made available for inspection and copying by Agency representatives during normal working hours.

5.2 – Reporting - HWE shall notify the Illinois EPA, Bureau of Air, Compliance Section Manager, in writing within 24 hours of material (e.g. non-compliance with application of

required control measures, wind speed or wind gust limitations, visual monitoring requirements, or maintaining records) deviations from this plan including without limitation fugitive dust events which migrate off-site.

Attachment A

LIST OF KEY PERSONNEL AND CONTACT INFORMATION

Key Personnel Roles and Contact Information

HRP Exchange 55, LLC Developer

- Senior Vice President of Development
Brian P. Sheehan (630) 390-5776
bsheehan@hilcoglobal.com
- Vice President of Development
Nick Pullara (815) 263-6776
npullara@hilcoglobal.com
- Project Manager
Genaro Holguin (773) 633-5734
gholguin@hilcoglobal.com

GSG-PROBE (GSG) Owner Oversight & Owner Representative

- Compliance Inspector
Mike Navarrete (708) 935-7165
mnavarrete@gsg-consultants.com
Responsible for demolition oversight and daily DMP reporting to municipal agencies

Morgan / Harbour Construction, LLC (MHC) General Contractor

- General Superintendent
Jim McCarron (630) 445-9178
jmccarron@morganharbour.com
Responsible for overall project planning and execution of vertical construction
- Senior Construction Superintendent
Stan Martenson (630) 888-4985
smartenson@morganharbour.com
Responsible for day to day vertical construction activities, subcontractor supervision, and adherence to project safety measures and project schedule
- Superintendent Dust Manager
Kevin Gibbons (630) 371-8888
kgibbons@morganharbour.com
Responsible for daily adherence to DMP and daily reporting to GSG Compliance Inspector
- Project Engineer
Julian Saurez (630) 870-7087
jsuarez@morganharbour.com
Provides Superintendent site support

Heneghan Wrecking & Excavating Company (HWE) Demolition Contractor

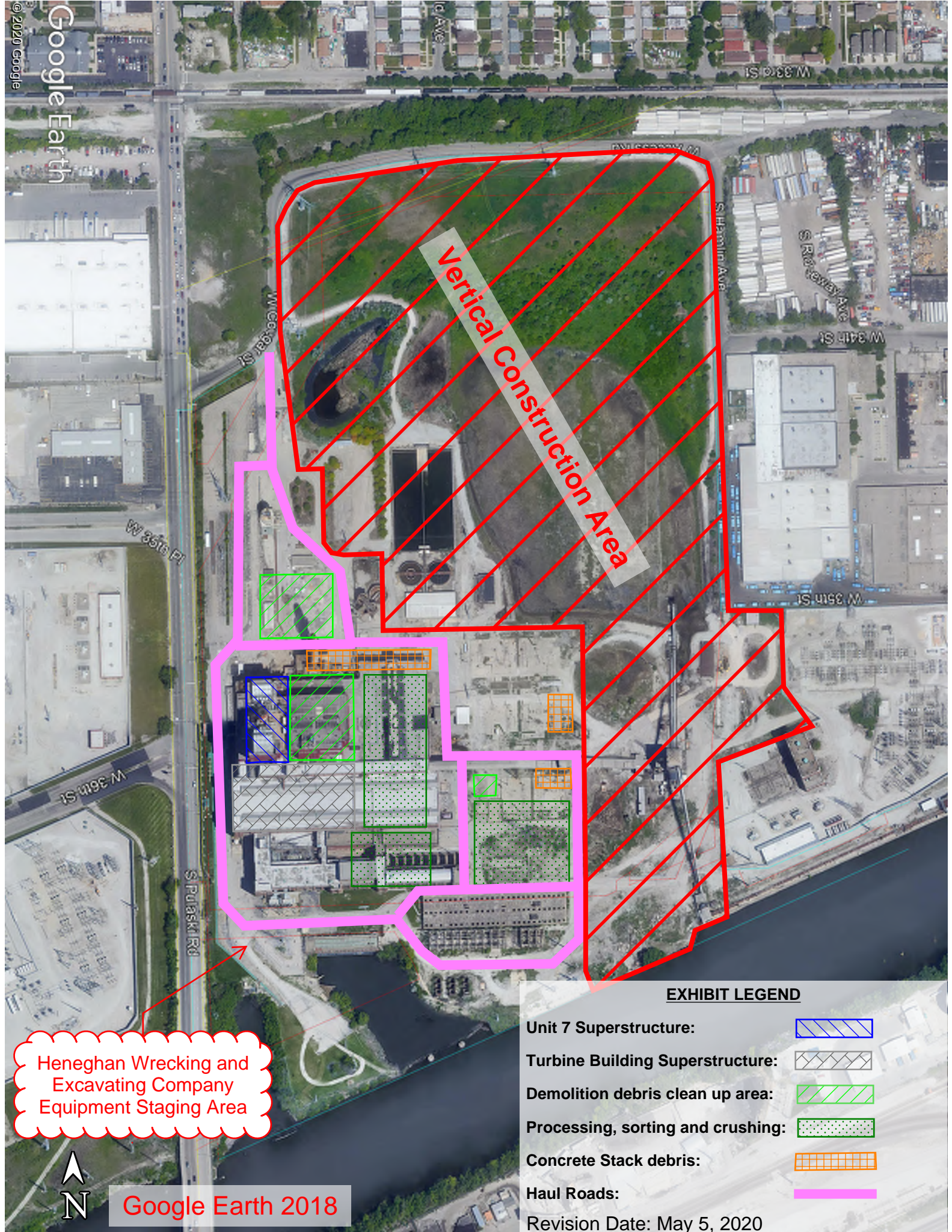
- General Superintendent
Kurt R. Berger (773) 617-8504
kurt@heneghanwrecking.com
Responsible for overall project planning and execution of demolition, crushing, and backfilling plan
- Demolition Superintendent
Randy Demonbreun (773) 724-8458
randy@heneghanwrecking.com
Responsible for day to day demolition, crushing, and backfilling activities, subcontractor supervision, and adherence to project safety measures and project schedule
- Dust Manager
Eric Pulido (773) 617-8928
Erick@heneghanwrecking.com
Responsible for daily adherence to DMP and daily reporting to GSG Compliance Inspector

Christopher B. Burke Engineering (CBBEL) Independent SWPPP Inspector

- Senior Environmental Resources Specialist
Thomas J. Kehoe (847) 354-3299
tkehoe@cbbel.com
Responsible for the inspection and reporting services as required by NPDES General Permit

Attachment B






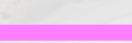
SITE LAYOUT



Vertical Construction Area

Heneghan Wrecking and Excavating Company Equipment Staging Area

EXHIBIT LEGEND

- Unit 7 Superstructure: 
- Turbine Building Superstructure: 
- Demolition debris clean up area: 
- Processing, sorting and crushing: 
- Concrete Stack debris: 
- Haul Roads: 

Revision Date: May 5, 2020



Attachment C

INSPECTOR DAILY REPORT FORM



**DUST MITIGATION
VISUAL OBSERVATION LOG**

PROJECT INFORMATION		WEATHER				
Address:		Time:	Temp:	Wind:	Gusts:	Precipitation:
City / State:						
Inspector:						
Contractor:						
Date:						

IDENTIFICATION OF POTENTIAL DUST CREATING ACTIVITIES PER HENEGHAN DUST MITIGATION PLAN	
(1) STRUCTURAL DEMOLITION (2) CRUSHING ACTIVITIES (3) STOCKPILES (4) DEMOLITION EXCAVATION	
(5) TRUCK / EQUIPMENT TRAFFIC ON PAVED / UNPAVED ROADS (6) SITE BOUNDRY	

AREA	ACTIVITY ID	DESCRIPTION OF ACTIVITIES			
TIME	DUST CONTROL OBSERVATIONS			EQUIPMENT	PHOTOS

AREA	ACTIVITY ID	DESCRIPTION OF ACTIVITIES			
TIME	DUST CONTROL OBSERVATIONS			EQUIPMENT	PHOTOS

AREA	ACTIVITY ID	DESCRIPTION OF ACTIVITIES			
TIME	DUST CONTROL OBSERVATIONS			EQUIPMENT	PHOTOS

AREA	ACTIVITY ID	DESCRIPTION OF ACTIVITIES			
TIME	DUST CONTROL OBSERVATIONS			EQUIPMENT	PHOTOS

GSG INSPECTOR: _____
(Signature)



**DUST MITIGATION
VISUAL OBSERVATION LOG**

PROJECT INFORMATION		WEATHER				
Address:		Time:	Temp:	Wind:	Gusts:	Precipitation:
City / State:						
Inspector:						
Contractor:						
Date:						

PHOTOS

GSG INSPECTOR: _____

(Signature)