Spirtas Wrecking Company
951 Skinker Parkway
St. Louis, Missouri 63112

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EFFECTIVE DATE: 2022

DOCUMENT TITLE:

General Work Plan

SITE:
Duck Creek Power Plant
Canton, Illinois

PAGE 1 OF 17

PREPARED BY:

Philip Kennedy DATE: December 9, 2022
Project Manager

REVIEWED BY:

Elizabeth Macheca DATE: December 9, 2022
Administrator

To be determined DATE: TBA
Site Superintendent

APPROVED BY:

Dianna Tickner DATE: December 13, 2022

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1.0 INTRODUCTION

1.1 Abbreviations

The abbreviations listed below, when used in this [Preliminary] work plan, have the following meaning:

RPR	Resident Project Representative
ACM	Asbestos Containing Material
PACM	Presumed asbestos containing materials
PCB's	Polychlorinated biphenyls and/or remediation waste
CFR	Code of Federal Regulations
DOT	Department of Transportation
EPA	U. S. Environmental Protection Agency
DEZ	Demolition Exclusion Zone
LO/TO	Lockout/Tagout
MLA	Material Laydown Area
OSHA	Occupational Safety & Health Administration
RCRA	Resource Conservation and Recovery Act
TPOC	Technical Point of Contact
TCLP	Toxicity Characteristic Leaching Procedure
WAC	Waste Acceptance Criteria
CLP	Commercial Liability Partners Corporation

2.0 PROJECT SCOPE

The Work consists of the abatement, demolition and site restoration of selected remaining controls and structures associated with the Duck Creek Power Plant and as defined in the project specifications and referred in Sections 011100 Summary of Work and Scope of Work Matrix.

3.0 ORGANIZATION AND ADMINISTRATION

3.1 Project Administration

SWC will administer the work from a temporary trailer to be located at the Project site, specifically the area west of the plant in close proximity to the substation. This temporary office will be used by SWC for its administrative work, RPR and management, safety orientations and meetings, and project meetings.

3.1.1 Proposed Schedule, Work Hours & Staffing

SWC has prepared a preliminary MS Project schedule to be submitted in PDF format. During the project SWC will update the project schedule at weekly intervals and as per specification 13200. The schedule is based on SWC work hours of Monday thru Friday 7:00 to 5:30. The holidays will be shown as "non-working" days on the schedule.

Table 3.1.1 Project Staff

Title	Project Team	Onsite
Project Manager	Philip Kennedy	As Needed
Site Superintendent	TBD	Full Time
SE&H Manager	TBD	Full Time
Equipment Operator	TBD	Full Time
Equipment Operator	TBD	Full Time
Equipment Operator	TBD	Full Time
Equipment Operator	TBD	Full Time
Laborer	TBD	Full Time
Laborer	TBD	Full Time
Laborer	TBD	Full Time
Laborer	TBD	Full Time
Laborer	TBD	Full Time
Laborer	TBD	Full Time

3.1.2 List of Subcontractors and associated Scope of Work

Company Name	Work Description
Precision Environmental	ACM Testing & Abatement
Demtech	Explosive Demolition
Vibra-Tech Engineers, Inc.	Seismic Monitoring
Sitex	Air Monitoring
Special Inspections and Design	Engineering Services

3.2 Onsite Interfacing with RPR

SWC to interface with onsite RPR on a daily basis. The SWC Superintendent, Safety Representative and Project Manager will inform and communicate project progress and issues with the RPR.

3.3 Incident Reporting

Incidents will be reported to the respective organization and within the prescribed time as per the SWC HASP and Project Specification. Incidents will be communicated to RPR immediately by either the SWC E S & H, PM or Administrative office.

3.4 Routine OSHA Reporting

SWC will report any routine OSHA matters from its administrative (St. Louis) offices.

3.5 Reporting Requirements, Permits and Requests

SWC ES & H will be responsible for all OSHA reporting.

3.5.1 Environmental Compliance

SWC and its subcontractors will adhere to all local, state and federal environmental requirements.

3.6 Project Records

All project records such as manifests, disposal tickets, and other information will be submitted to CLP in a formal close out package. Daily logs with safety meeting topics and sign in sheets will be forwarded to RPR on a daily basis. All papers and records will be submitted as per specifications.

4.0 PROJECT MOBILIZATION

4.1 Development of Plans, Procedures and Hazard Analysis

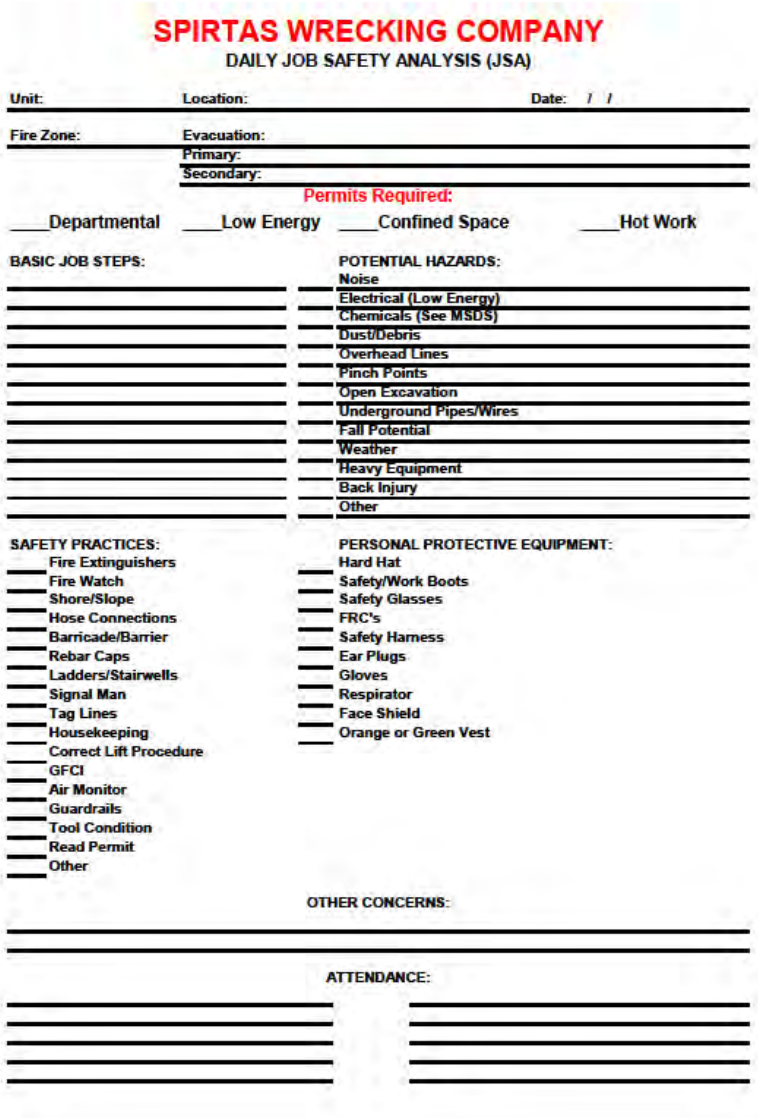
SWC to develop plans and procedures in house and in conjunction with listed or hired subcontractors. All plans and procedures will be submitted to CLP prior to commencement of those activities. These plans will include:

- *Site Specific Health & Safety Plan*
- *Execution Plan (Work Plan)*
- *Spill Control Plan with Work Plan for inspection and draining of piping*
- *SWPPP Implementation Plan*
- *Noise Control Plan*
- *Duct Control Plan*
- *Dewatering Plan*
- *Traffic Control Plan*
- *Emergency Plan*
- *Waste Management Plan*

Additionally, SWC will provide to CLP its permitting and notification items, Safety Data Sheets, and other safety and regulatory items.

4.1.1 Hazard Analysis JSA

SWC to utilize the following JSA form for daily activities and discussion. This form to be completed and submitted to RPR along with daily paperwork.



SPIRTAS WRECKING COMPANY

DAILY JOB SAFETY ANALYSIS (JSA)

Unit: Location: Date: / /

Fire Zone: Evacuation:

Primary:

Secondary:

Permits Required:

____Departmental ____Low Energy ____Confined Space ____Hot Work

BASIC JOB STEPS:

POTENTIAL HAZARDS:

- Noise
- Electrical (Low Energy)
- Chemicals (See MSDS)
- Dust/Debris
- Overhead Lines
- Pinch Points
- Open Excavation
- Underground Pipes/Wires
- Fall Potential
- Weather
- Heavy Equipment
- Back Injury
- Other

SAFETY PRACTICES:

- Fire Extinguishers
- Fire Watch
- Shore/Slope
- Hose Connections
- Barricade/Barrier
- Rebar Caps
- Ladders/Stairwells
- Signal Man
- Tag Lines
- Housekeeping
- Correct Lift Procedure
- GFCI
- Air Monitor
- Guardrails
- Tool Condition
- Read Permit
- Other

PERSONAL PROTECTIVE EQUIPMENT:

- Hard Hat
- Safety/Work Boots
- Safety Glasses
- FRC's
- Safety Harness
- Ear Plugs
- Gloves
- Respirator
- Face Shield
- Orange or Green Vest

OTHER CONCERNS:

ATTENDANCE:

4.2 Establish and Connect Utility Services

SWC to obtain/provide temporary electrical service to its portable office trailer. A telephone service will be installed inside office. Other telephone service will be the use of handheld devices. SWC and its subcontractor will utilize the existing well water at the facility for its work. SWC will attach the necessary components to utilize well water including a generator to power well pump and the associated piping / fittings. All other utility service will be terminated (made cold/dark) prior to mobilization including electrical, sewer, and communication. There is currently no gas service to plant. SWC and its subcontractor will provide electrical service for its work performance.

4.3 Engineering Assessment of the Facility

SWC will complete the following Project Pre-Start Engineering Report (a full five-page report will be submitted for Project). This survey will be attached to the formal work plan to be submitted to RPR for approval prior to commencing work.

PROJECT PRE-START ENGINEERING SURVEY

PROJECT INFORMATION

Project Name_____ Project Number _____

Project Location _____ City _____

Legal Description:

_____

_____

_____

_____

_____

Plat # _____

State _____ Zip Code _____ County _____

Client _____

Client Address _____

_____

Contact(s) _____ Phone #_____

Owner _____

Owner Address _____

Owner Representative _____ Phone # _____

Required Project Meetings include Dates and Times:

Prestart _____

_____

Production_____

_____

Safety_____

_____

Description of Work to be Performed

_____

_____

_____

_____

Is a SCOPE OF WORK included with the Engineering Survey? YES _____ NO _____

5.0 PROJECT EXECUTION

5.1 Site Preparation
SWC to make all preparations upon mobilization including establishing of the project office, DEZ, installation of protection and/or signage of save items (electrical substation, combustion turbine, ash pond closure area, shed, diesel fuel storage tank) and delineation

of approved road travel areas. SWC will install these items as depicted on the preliminary site drawing.

5.1.1 Work Zone Delineation (DEZ)
SWC to make all persons working at site, as well as project visitors, aware of the DEZ through the initial site orientation and daily toolbox meeting topic. This will include areas that are not allowed access except by approved demolition or remediation personnel. Also, specific traffic routes will be utilized to route trucks in and out of site as depicted in Appendix A.

5.1.2 Site Access Controls

Site access will be granted to approved Project personnel only. SWC will monitor all incoming Duck Creek Power Plant Demolition Project personnel and vehicular traffic coming into site during normal working hours.

5.1.3 Lockout/Tag-out Verification

SWC, as part of its OSHA pre-work survey, will conduct a walk down with RPR to ensure all utilities are locked out and /or disconnected. This will include all plant electrical power and lighting systems to insure these are cold and dark.

5.2 Demolition of the Duck Creek Power Plant

The demolition of the Duck Creek Power Plant will be by conventional and use of explosive methods.

5.2.1 Description of DEMO Equipment and Tools

SWC plans the use of the following equipment (or similar) to accomplish the work:

Fleet No.:	Model*	Attachments	Weight	Year	Cab Protect	UC Protect	Quick Connect	Attach plumbing
256	Kobelco 500	LaBounty MSD 2000	55 Tons	2017	Y	Y	Y	Y
257	Kobelco 500	LaBounty HDR 170	55 Tons	2017	Y	Y	Y	Y
258	Kobelco 500	LaBounty MSD 1000	55 Tons	2019	Y	Y	Y	Y
259	Kobelco 210	Winkle 48 Inch Magnet	22 Tons	2017	N	Y	Y	Y
554	CAT Skid Steer	LaBounty Grapple and Bucket	4.2 Tons	2015	Y	Y	Y	Y
240	CAT 345 UP 90	LaBounty UP 90	50 Tons	2015	Y	Y	Y	Y
300	JLG Aerial Lift	120ft Telescopic	20 Tons	2019	N	N	N	N

Model **(DEX):** **D**emolition Equipped **EX**cavator
Attachment: **G**/Grapple; **B**/Bucket; **P**/Processor; **S**/Shear; **MP**/Multi-processor; **B**/Breaker; **SS-G**/Skid Steer Grapple; **M**/Magnet
Cab Protect: DEX has operator guard protection installed
UC: Undercarriage protection (to prevent hose puncture)
Quick Connect: Hydraulic connector for DEX attachments
Attach Plumbing: Equipped with appropriate lines for hydraulic tool adaption

5.2.2 Demolition Strategy and Approach for this Project

SWC to mobilize subcontractor and perform asbestos abatement. During the subcontractor abatement phase, SWC to perform the general condition items such as installation of the DEZ safety fences, protection of save items (combustion turbine) and other protection, as well as SWPPP items. SWC will also remove the remaining transformer and ship off site intact. Additionally, SWC will be mobilizing DEX equipment and other necessary tools and equipment needed for demolition. SWC will use the Project Matrix as a basis for the general approach and is as follows:

General Matrix Considerations for Project Scope:

1. Environmental Activities
   a) ACM abatement activities as listed.
   b) Sample suspicious materials for ACM (wiring, boiler and stack).
   c) Removal of remaining transformer.
   d) Controlled flushing of remaining lubricants and oils.
   e) Controlled draining of process piping; water treatment tanks.
   f) Remove DC batteries (if any).
   g) Remove ballasts and bulbs as required.
   h) Removal of fixed heavy metal containing circuitry.
   i) Removal of electronic waste as necessary including computers.
   j) Removal of miscellaneous containers, drums, totes, and cylinders.3

k) Removal of transformer pads to two feet below final grade.
l) Characterization and disposal of waste to include:
    i. Hazardous waste;
    ii. Asbestos-containing waste;
    iii. PCB-contaminated waste;
    iv. Universal wastes;
    v. Potentially contaminated ground or surface water;
    vi. Other waste prohibited for disposal at solid waste facility.

2. SWPPP -National Pollutant Discharge Elimination System (NPDES)
    a) Keep and maintain Plan in Project office.
    b) Off-site vehicle or equipment tracking of soil shall be minimized.
    c) If soil is tracked on any portion of pavements or structures used by public traffic on or adjacent to the construction site, SWC will clean the pavement at the end of each day of operation.
    d) A hose wash down station will be utilized if the tracking of soil off-site is evident.
    e) Sediment will be retained on site and not be allowed to enter storm inlets or receiving water.
    f) Sediment runoff from the site will be controlled by installing silt fences.
    g) Other measures will include the control of dust and stockpiled materials, prompt disposal of scrap metals, and the use of secondary containments.
3. Demolition
    a) Completion of protection and sampling clearance of abatement.
    b) Obtain clearance from RPR to commence demolition.
    c) Demolish superstructure.
        a. General Sequencing (see sequencing and drawing in Appendix B)
    d) Demolish all equipment, piping, components within footprint.
    e) Demolish pedestals, interior walls and break up slab.
    f) Process materials and remove rebar.
    g) Dispose of all materials not intended for use as backfill.
4. Site Restoration
    a) Utilize processed materials from demolition (6” minus) of site or borrow area (if necessary) to backfill areas.

General Sequencing for Demolition:

1. Phase 1: Material Handling Equipment
   Phase 2: Air Pollution Control
   Phase 3: Coal Handling
   Phase 4: Turbine Building/Administration Building
   Phase 5: Boiler House, Old Stack, and New Stack

The General Sequence Image can be viewed in Appendix B .Additional Narrative

SWC will utilize three Kebelco 500s, two CAT skid steers, and one JLG aerial lift (Demolition Equipped Excavator with shear attachment) to perform demolition of the Duck Creek Power Plant. This demolition procedure will be performed until entire structure has been systematically demolished and is safely on the ground. The demolition debris will be removed from the site and sorted, processed and loaded out. This debris will include combustible material, scrap steel, bricks, roofing material and other miscellaneous debris. These materials will be sorted into three types:

1. *Non-recyclable combustible materials/roof material;*
2. *Recyclable Scrap metal including rebar; and*
3. *Aggregates/Brick (to be used for site fill).*

All combustible materials will be shipped off site and properly disposed. Scrap metals will be downsized and shipped off site to be recycled. Remaining aggregate materials such as block, brick and concrete will be processed and used on site as fill material and staged in the MLA for use during site restoration.

5.2.3 Site Restoration

SWC will back fill areas as per specification using on site material and processed to a 12 inch minus sized material.

6.0 DEMOBILIZATION

SWC to demobilize following completion of punch list work items. The Close Out package containing documentation for administrative fulfillment will be compiled and forwarded in a timely manner.

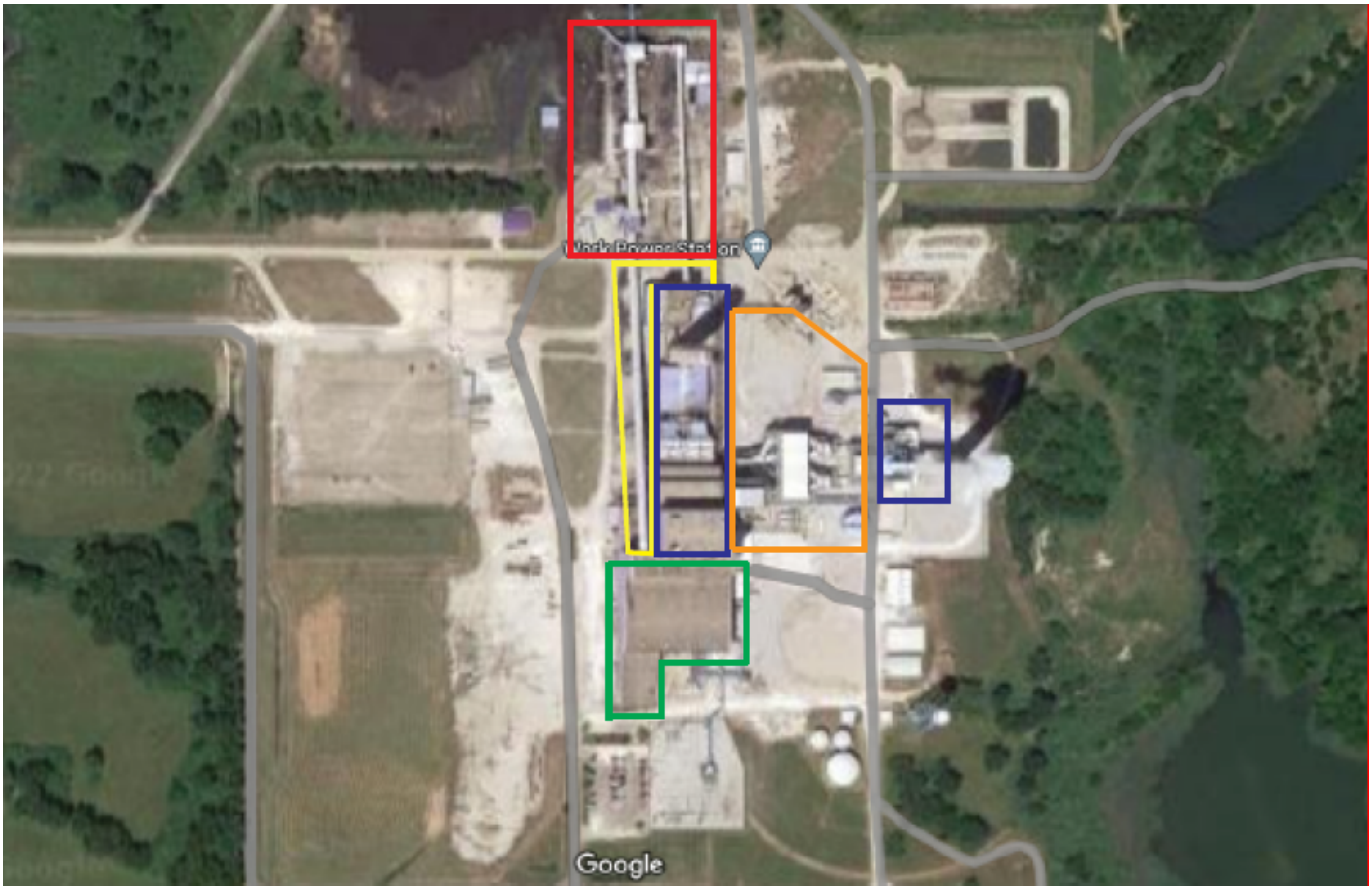
7.0 DUST CONTROL PLANS

The Fugitive Dust Control Plan, the Dust Control Update Attachment to Demolition Plan, and the Dust Mitigation Plan for Smokestack Demolition can be viewed in Appendix C.

APPENDIX A
WORK ZONE DELINEATION


Work Power Station

APPENDIX B
GENERAL SEQUENCE IMAGE



Phase 1: Red
Material Handling Equipment

Phase 2: Orange
Air Pollution Control

Phase 3: Yellow
Coal Handling

Phase 4: Green

Turbine Building/Administration Building

Phase 5: Blue
Boiler House, Old Stack, and New Stack

APPENDIX C

FUGITIVE DUST CONTROL AND DUST MITIGATION PLANS

FUGITIVE DUST CONTROL PLAN

Duck Creek Power Station
Canton, Fulton County, Illinois

December 2022

Prepared for:
Spirtas Wrecking Company
St. Louis, MO

Fugitive Dust Control Plan

Duck Creek Power Station
Canton, Fulton County, Illinois

Prepared for:

Spirtas Wrecking Company

951 Skinker Parkway

St. Louis, MO 63112

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1.0 INTRODUCTION

Spirtas Wrecking Company has prepared this Fugitive Dust Control Plan (FDCP) to identify the measures that will be taken to reduce the potential for particulate emissions associated with demolition activities at the Duck Creek Power Plant located in Canton, Fulton County, Illinois (the Site). A Site Layout Map is provided in the Removal Action Work Plan. This FDCP will be implemented in conjunction with the Air Monitoring Plan also prepared for these demolition activities, which describes the air monitoring activities to be performed during the work.

The purpose of this FDCP is to identify the steps that will be taken to reduce the potential for particulate emissions during demolition activities. The FDCP includes activity-specific dust control criteria and dust suppression procedures. Best management practices (BMPs) will be implemented throughout the project. BMPs include wetting active demolition areas, minimizing or ceasing activities during periods of high wind, sweeping or wetting paved areas, wetting unpaved areas, application of dust suppressant materials and covering stockpiles. This FDCP provides specific information about the generation and control of dust emissions during the excavation of soil material, stockpiling of these materials and other activities associated with the demolition. This plan is to be used in conjunction with the Demolition Work Plan, Site-Specific Health and Safety Plan (HASP), and the Air Monitoring Plan developed for this project. The following section details potential dust sources and dust control methods.

1.1 Site Description and Project Overview

The site is Canton, Fulton County, Illinois. The Site is located in a predominately underdeveloped area with outlying agricultural, cooling ponds, and lakes surrounding the site.

Initial activities include the abatement and disposal of Asbestos Containing Materials (ACM) as well as the collection and disposal of Other Regulated Materials (ORM). Then, the demolition of the power station structures to levels immediately adjacent to the elevation of prevailing adjacent ground level in each location. During work activities, periodic air monitoring, and fugitive dusk control will be conducted. In addition, Spirtas will coordinate traffic and road control at the Site. Following demolition activities, wastes will be disposed of or recycled properly.

Demolition activities will begin on outer buildings in Spring of 2023. The Boiler House and stacks will be demolished on October 15, 2023.

1.2 Wind Monitoring and Dust Prevention Team

The FDCP will be implemented and overseen by Spirtas personnel. Spirtas personnel have the authority to implement additional dust control provisions and stop work provisions based on the results of the air monitoring described in the Air Monitoring Plan. Spirtas personnel will also maintain and revise the FDCP as needed to reduce the potential for dust emissions during demolition activities.

1.3 Fugitive Dust Control Objectives and Approach

The objectives of the FDCP are as follows:

- Provide an early warning system to alert Demolition Contractor when concentrations of respirable dust in ambient air are approaching Action Levels due to removal activities.
- Provide a plan for preemptively limiting and controlling respirable dust during removal activities
- Determine whether construction controls are effective in reducing ambient air concentrations of specific compounds to below Action Levels, and make appropriate and necessary adjustments.
- Develop a permanent record that includes a database of the total quantity of loaded or unloaded material in cubic yards or tons, total application of water, total amount of street cleaning and sweeping, instances of work-stopping weather events, results of the real-time air monitoring, and instances of dust approaching or exceeding the Action Levels.
- Control dust and ensure dust does not migrate from the project limits.

2.0 MONITORING ACTIVITIES

Spirtas is the Air Monitoring Contractor for this project. Spirtas will be responsible for the collection, evaluation, presentation, and data management of the real-time air monitoring results. Other Spirtas responsibilities include maintenance of sampling equipment and developing on-site recommendations for response actions. SITEX will be responsible for Air Monitoring during the demolition with explosive events for the Boiler House and Stacks.

The plan for a full scale air monitoring program is detailed in the AMP and generally consists of the following:

- 2 perimeter air monitoring stations will be deployed as shown on Figure 1 of the *Air Monitoring Plan*. Mobilization and air monitoring equipment preparation for the Site will be initiated prior to the start of removal activities. The perimeter air monitoring stations will monitor ambient air continuously while removal activities are being conducted. Bulk material stockpiles will not be maintained at the Site. Small stockpiles will only be temporarily formed when pulling soil within the reach of the excavator while loading a truck; therefore, continuous 24/7 air monitoring will not be necessary.
- Three days of baseline air monitoring will be conducted for the Site before any removal activities occur.
- In addition to the air monitoring stations, a dedicated weather station will be established at the Site and operated to continuously monitor meteorological conditions during the removal activities.

The air monitoring during the two demolition with explosive events will be conducted by SITEX. Two types of sampling will be done to include stationary area air sampling and nonstationary mobile direct reading sampling. Stationary area air sampling will be conducted using a low volume GILAIR 3 sampling pump placed on tripods at stationary location illustrated in the map. Stationary area air samples will be collected using a sampling train consisting of clear Tygon tubing attached to the sampling pump, and at the other end of the tubing, a pre-weighed polyvinyl chloride 37 millimeter sized cassette will be attached. The ese samples will be analyzed for total particulate dust using the modified NIOSH 0500 Method. SITEX will also use a hand-held TSI DustTrak direct reading instrument. This instrument will be carried to various locations outside the exclusion zone to directly measure ambient airborne particulate matter. Both sampling methods will be compared to the National Ambient Air Quality Standards for particulates of 10 microns and smaller (PM10). Air monitoring data and documentation from all instruments will be included in the final report. See the attached map for projected locations of air monitoring equipment. This map has also been added to the Plan.

2.1 Nature of the Dust

The Site is within a heavy industrial area. This FDCP is being developed to compliment upcoming demolition activities including excavation, disposal, and regrading of the Site.

3.0 DUST CONTROL PLAN

Control of dust will be a high priority during demolition activities. The primary mechanism for dust control will be the use of water trucks with a spray bar, misters and hoses. Proactive controls will be instituted to reduce the amount of dust generation during Site activities, including enforcement of low speed limits for vehicular traffic, decontamination of trucks leaving the demolition work areas and height limits for stockpiles, if applicable.

Spirtas will implement a dust control training program for all Site personnel. This training program will review the potential sources of dust, individual responsibilities, and actions for controlling dust as described in this plan. The training will emphasize the importance of dust control to the overall success of the demolition activities and familiarize Site management with the air monitoring requirements and appropriate dust control procedures that must be adhered to in accordance with this plan to minimize dust generation.

4.0 POTENTIAL DUST GENERATION ACTIVITIES AND PROPOSED CONTROLS

Demolition activities will have the potential to generate emissions in the form of fugitive dust. Dust control methods will vary based on the activities occurring at the Site. Activities to be conducted during the demolition activities which have the potential to generate duct, and the respective dust control measures, are described in the summary table below.

Activity	Proposed Dust Control Measures	Verification Method
Demolition	Wet down material before demolitions, use water-spray during demolition, keep ground wet for falling debris	Daily Visual Monitoring
Processing	Wet down material before processing, use dust suppression system during processing	
Stockpiles	Keep material met 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 needed per weather conditions, provide wash stations to prevent track-out, tarp cover for trucks leaving the project site	

4.1 Dust Suppression Measure Details

At the Duck Creek Power Plant demolition project site, fugitive dust emissions are likely to be generated from the following site activities. Demolition will not occur if the proper wind speed/direction/and/or temperature are not achieved. Demolition will not occur without all BMPS's in the dust plan in place and in working order. Proposed dust-controls measures for each of these activities are described here:

4.1.1 Structural Demolition

Demolition work will be completed using high reach excavators, hydraulic excavators, wheel loaders, and skid steers in order to raze the existing Duck Creek Power Plant structures.

4.1.2 Turbine Hall, and Associated Coal Conveyor Bay and Boiler House

High Reach excavators equipped with shears will dismantle the remaining Turbine Hall, Coal Conveyor Bay, and Boiler House 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 a West to East 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 mister and direct spray. These areas will have

mister 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 ACM was removed from the Coal Conveyor and Boiler House structures during the abatement phase of the project. If any suspect ACM is discovered during demolition by Spirtas'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.

4.1.3 Watering

The Demolition Contractor shall conduct operations and maintain the Site as to minimize the creation and dispersion of respirable dust. Clean water, provided by the Demolition Contractor, shall be applied to the Site to prevent dust during excavation, loading/unloading, and backfilling activities. BMPs will be upkept and observations will be conducted by a qualified person to determine if they are performing as intended to prevent dust from spreading off site. Roads within the work area will be wet down periodically by a tanker truck with a spray bar throughout the demolition shift. Observations will be conducted by a qualified person to determine when more water is required. If it is deemed necessary, the frequency of water will be increased. Excavation areas and on-site roadways will be kept damp, as necessary, without creating ponding or mists that travel beyond the Site boundaries. The watering operations shall be sufficient to control fugitive dust. Spirtas assumes that tanker trucks will be utilized to provide and apply clean water for removal activities. Water shall be applied in a manner to prevent runoff. As a contingency measure, Spirtas will have erosion and sedimentation controls, such as silt fencing, sediment logs, or manhole silt screens, installed as necessary to manage runoff. Roads will be watered daily. Water misters will be used and placed strategically around the site to prevent dust mitigation outside the project limits. Water misters will be running continually as demolition activities are in progress.

Water shall be applied in a manner to prevent runoff. As a contingency measure, Spirtas will have erosion and sedimentation controls, such as silt fencing, sediment logs, or manhole silt screens, installed as necessary to manage runoff.

The interior of stacks and the exterior of the boiler house will be wetted with water cannons prior to demolition. After the implosion of the stacks and boiler house, while they are falling, direct water from cannons as well as water misters will be used to further ensure no migration of dust or debris offsite.

The six misters will be placed around the stacks/boiler house to prevent dust migration from the site to its nearest off-site neighbors. If the wind direction changes from the forecasted direction, one of the six misters may be moved to another location depending on the wind direction. This adaptability should allow for better dust suppression. Water cannons will also be used during the demolition events. Regardless of precipitation as a means to mitigate dust generation, proper BMPs will still be used including dust suppression equipment.

4.1.4 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 4.0 and 4.1.6 of this FDCP. 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. Spirtas personnel will visually monitor all work throughout the shift and adjust engineering controls as needed to minimize emissions.

4.1.5 Roadways

In order to keep roadways clean and free of accumulation, Spirtas will coordinate with the City of Canton, Illinois for routine street sweeping during removal activities. The street sweeper must be equipped with a water spray and vacuum system to prevent fugitive dust. Street sweeping must be completed at the end of every day or as needed, but at a minimum of once a day. Parts of Chessen Lane that will be impacted by demolition will be maintained in a "broom clean" condition at all times by using a skid steer loader equipped with a power broom or manual tools (e.g., push broom, shovels, etc.). All trucks are to take the most efficient and direct route to the disposal facility as possible as described in the Transportation and Road Control Plan. Truck washing will be done on vehicles via water hose before leaving the project site if they are tracking mud.

4.1.6 Windy/Freezing Days

Meteorological conditions forecasted (by Weather Channel) for the workday will be reviewed and discussed. On windy days, the road dust suppression method will include increasing the frequency of water application to areas at risk of migrating dust. A qualified person will be consistently monitoring the demolition to determine if more water is needed. If wind speeds are over 10 miles per hour sustained or gusts of 15 miles per hour or more, an explosive event will not take place. On Freezing temperature days, a non-toxic chemical additive to prevent the water from freezing will be included in the water application. If temperatures reach below freezing where water BMPs are not operating correctly, demolition activities that create dust will be suspended until appropriate temperatures are reached. If there is significant freezing for multiple days in a row the demolition work schedule may be adjusted or suspended.

4.1.7 Visual Monitoring Activities and Frequency

The site personnel 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. While conducting visual monitoring of all demolition related activities, any observation of visible fugitive dust emissions will be recorded and reported immediately. Spirtas, 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 Spirtas 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 Spirtas and its crew.

The description and minimum frequency of visual monitoring activities by personnel are outlined in the table below.

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
Processing	Each processing 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 processing
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 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 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

5.0 EMERGENCY PLAN

5.1 Emergency Contact List

In the event that Action Levels have been exceeded or removal activities have been suspended for any reason, utilize the following emergency contact lists to inform the necessary personnel of the incident.

5.1.1 Primary Contact List

Organization	Contact	Order	Contact Number
Spirtas	Philip Kennedy	1	313-506-9440
Sitex	Bob Hill	2	618-795-0502

5.2 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 Spirtas 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.

5.3 Reporting

5.3.1 Record of the Material

Daily summaries of the amount of material, in tons or cubic yards that has been removed or delivered will be maintained. These records will include the number of trucks leaving the facility, including empty trucks, and all manifests for the disposal of material at the landfill.

5.3.2 Record of Water

A record of water application will be maintained from periodic water meter readings, including number of times applied and a daily total of water used in gallons. Records shall also include the manner of application, such as spraying or misting. Any incidents of pooling or runoff will be noted as well, including the areas of the Site affected by the incident.

5.3.3 Record of Street Sweeping

A record of street sweeping will be maintained, including the time of day that street cleaning was performed.

5.3.4 Other Record Keeping Items

Copies of up-to-date records such as JSAs will be kept as attachments in Appendix B. These documents will be kept up to date with a copy of the plan onsite.

5.3.5 Deviations

Any deviations from the plan should be reported to Vikash Bhakta of the Illinois Environmental Protection Agency (IEPA). Vikash Bhakta can be contacted via email at Vikash.Bhakta@Illinois.gov.

5.3.6 IEPA Submittal

Two hard copies of this final report shall be submitted to the Illinois Environmental Protection Agency within 30 days of the completion of site work or by April 1, 2021, whichever is later. Drone video taken during the demolition with explosives will be included in the final report.

6.0 REFERENCES

USEPA. National Ambient Air Quality Standards for Particulate Matter, Final Rule, 40 CFR Parts 50, 21, 52 et al.

USEPA. National Exposure Research Laboratory, Human Exposure & Atmospheric Sciences Division (MD-D205-03), List of Designated Reference and Equivalent Methods for Particulate Matter, June 18, 2015.

USEPA. EPA Guidance for Quality Assurance Project Plans, EPA QA/G-5, EPA/600/R-98/018, February 1998.

USEPA. Guidance for the Data Quality Objectives Process, EPA QA/G-4, EPA/600/R-96/005, August, 2000.

USEPA. *Guidance for the Data Quality Objectives Process for Hazardous Waste Sites*, EPA QA/G-4HW EPA/600/R-00/007, January 2000.

USEPA. *Guidance on Systematic Planning using the Data Quality Objectives Process,* EPA**QA/G-4,** EPA/240/B-06/001, February 2006.

USEPA. Integrated Risk Information System, October, 2009

IEPA. Air Quality Information, 2020. https://www2.illinois.gov/epa/topics/air-quality/Pages/default.aspx.

IEPA. Asbestos Information and Overview, 2020. https://www2.illinois.gov/epa/topics/air-quality/asbestos/Pages/default.aspx.

APPENDIX D
Explosive Plan

NATIONALLY RECOGNIZED LEADER IN STRUCTURAL DEMOLITION

Jobsite: Duck Creek **Date:** MM/DD/YR TBD **Time:** TBD am/pm

Shot Day Sequence of Events:

1. All parties involved in operations and safety zone control present.
2. Safety coordination meeting:

a) Safety check points issued to personnel (check points pre-determined)
b) Numbered radios issued to check point personnel
c) Back up cell phone numbers provided and confirmed

Timeline: (*Times are subject to change per the GC)*

2hrs prior – Pre-Blast meeting [All Hands-on Deck] Go over all personnel assigned safety check point location number and what to expect on radio communications.

1hr 15mins prior - All personnel go to assigned positions and perform radio check.

15mins prior - First radio check all check point locations Safety Zone. "All Clear" Seismic personnel - instruments operational and personnel in safe location

5mins prior - Confirm all GC personnel and any spectators in safe locations, Cameras up and running. 5-minute warning siren.

1min prior - 1 minute warning siren. Second and last radio check from all check point locations and exclusion zones. ("ALL CLEAR" will be relayed over the radios)

TBD shot time - If "ALL CLEAR", commence the 10second count down: "10, 9, 8, 7, 6", over the radios, followed by a silent "5, 4, 3, 2, 1" (which will provide a small window of safety) followed by "Fire in the hole" [if no security breaches].

"Shot takes place"

After smoke has cleared blast area – Demtech Blasters go to blast site to perform post blast inspection [looking for any undetonated explosives] and will sound the "All Clear"

TBD – Demtech will announce the "ALL CLEAR", GC is approved to collapse exclusion zones and open roads.

NOTE: Should some unforeseen anomaly occur, Demtech takes full control of the situation! [From a safe distance]. Safety check point personnel stay at locations until advised otherwise. Safety Zone around effected area will be established. Situation will be analyzed, and a plan will be formulated.
With no explosives related dangers present – DEMTECH GIVES "ALL CLEAR" All Clear Siren sounded. All check point control personnel to return to site location.
Demtech and GC personnel allowed to proceed to blast site.

Seismographs to be retrieved and downloaded. Cameras retrieved and footage downloaded.

Demtech to review Seismic data retrieved and camera videos.
Demtech to fill out blast report and submit to GC for review.

NATIONALLY RECOGNIZED LEADER IN STRUCTURAL DEMOLITION

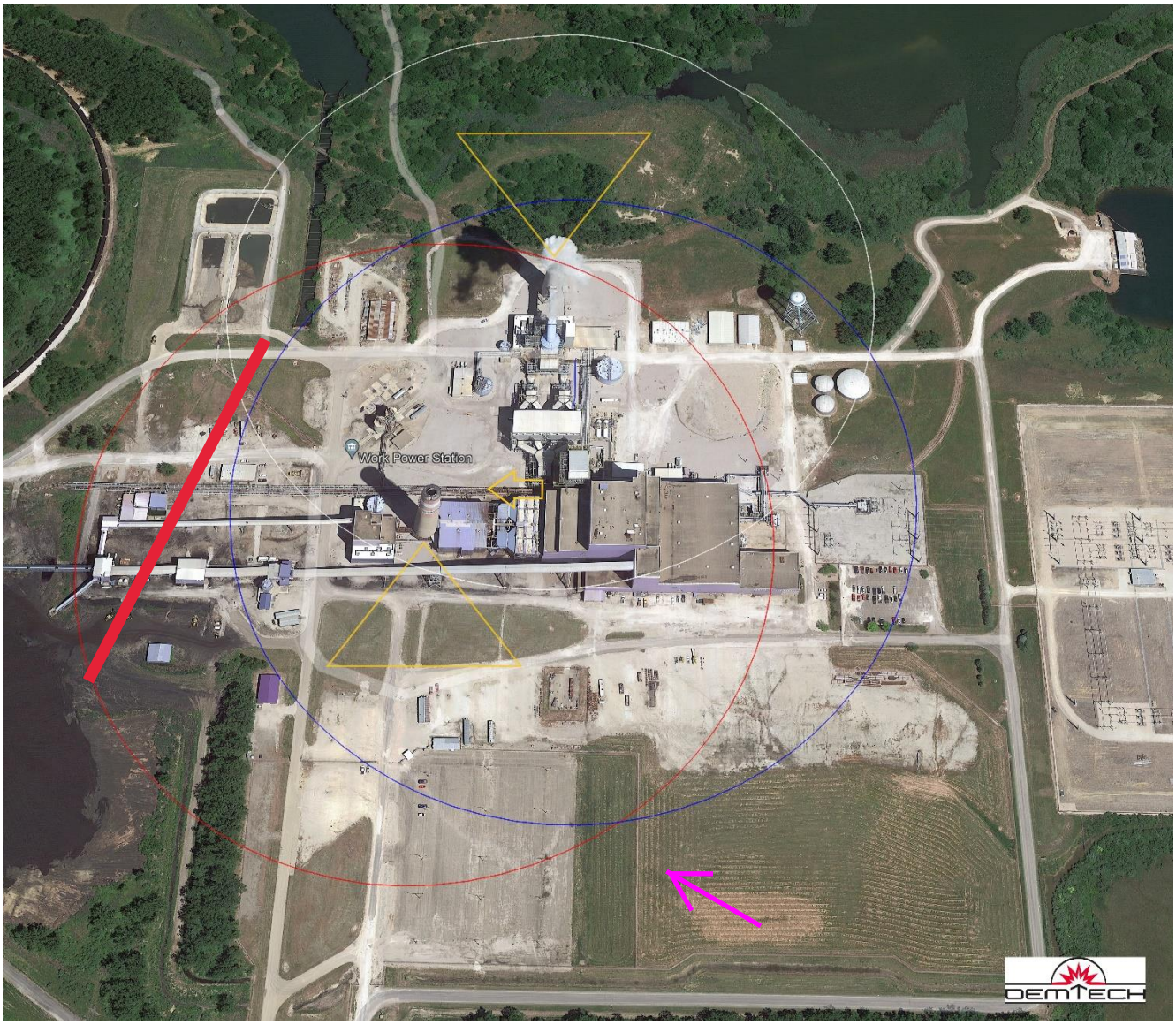
Exclusion Zones and Fall Direction

800’ exclusion zone:
No personnel will be allowed to be within the 800’ exclusion zones, depicted in red, white, and blue circles.

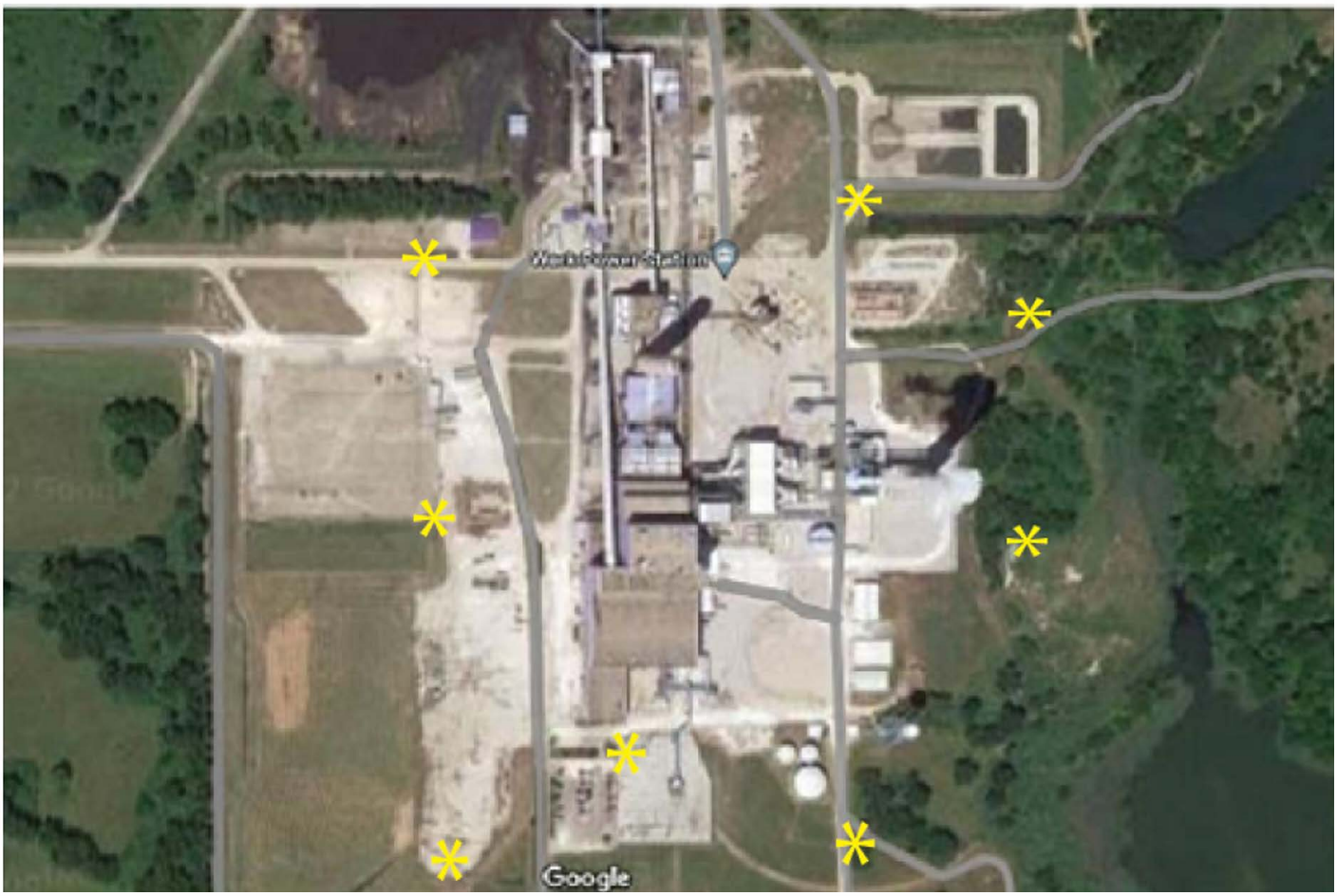
Fall Direction:
Fall direction for the stacks are depicted by the yellow triangles as the recommended impact zones. Fall direction for the Boiler House is depicted by the yellow arrow.

Seismograph locations:
Seismograph locations will be dependent which structures will be on site at the Time of blasting operations and TBD based on final consultation with GC, Demtech and the sub-contracted seismic company.

Road Closures:
Road closures will be TBD



APPENDIX E
Seismograph Locations


Google

APPENDIX F

Dust Control Plan
Water Mister
Locations


Google

APPENDIX G

Federal Aviation Administration Information

Federal Aviation Administration Information

- The Federal Aviation Administration (FAA) will be contacted by Spirtas Wrecking Company to inform the FAA about the light beacon removal on the 2 Stacks that will be demolished on 10-15-2023. A NOTAM will be issued on that same day.

- The beacon's Reference Number will be posted once issued.

- The beacon's location is 40.465760,-89.984579.

Appendix H

Project Limits & Exclusion Zone


Duck Creek
Power Station
CLOSED

Appendix I

Record Keeping Documents

SPIRTAS WRECKING COMPANY

DAILY JOB SAFETY ANALYSIS (JSA)

Unit: Location: Date: / /

Fire Zone: Evacuation:
Primary:
Secondary:

Permits Required:

____Departmental ____Low Energy ____Confined Space ____Hot Work

BASIC JOB STEPS:

POTENTIAL HAZARDS:

- ___ Noise
- ___ Electrical (Low Energy)
- ___ Chemicals (See MSDS)
- ___ Dust/Debris
- ___ Overhead Lines
- ___ Pinch Points
- ___ Open Excavation
- ___ Underground Pipes/Wires
- ___ Fall Potential
- ___ Weather
- ___ Heavy Equipment
- ___ Back Injury
- ___ Other

SAFETY PRACTICES:

- ___ Fire Extinguishers
- ___ Fire Watch
- ___ Shore/Slope
- ___ Hose Connections
- ___ Barricade/Barrier
- ___ Rebar Caps
- ___ Ladders/Stairwells
- ___ Signal Man
- ___ Tag Lines
- ___ Housekeeping
- ___ Correct Lift Procedure
- ___ GFCI
- ___ Air Monitor
- ___ Guardrails
- ___ Tool Condition
- ___ Read Permit
- ___ Other

PERSONAL PROTECTIVE EQUIPMENT:

- ___ Hard Hat
- ___ Safety/Work Boots
- ___ Safety Glasses
- ___ FRC's
- ___ Safety Harness
- ___ Ear Plugs
- ___ Gloves
- ___ Respirator
- ___ Face Shield
- ___ Orange or Green Vest

OTHER CONCERNS:

ATTENDANCE:

PROJECT PRE-START ENGINEERING SURVEY

PROJECT INFORMATION

Project Name_____ Project Number _____

Project Location _____ City _____

Legal Description:

_____

_____

_____

_____

_____

Plat # _____

State _____ Zip Code _____ County _____

Client _____

Client Address _____

_____

Contact(s) _____ Phone #_____

Owner _____

Owner Address _____

Owner Representative _____ Phone # _____

Required Project Meetings include Dates and Times:

Prestart _____

_____

Production_____

_____

Safety_____

_____

Description of Work to be Performed

_____

_____

_____

_____

Is a SCOPE OF WORK included with the Engineering Survey? YES _____ NO _____

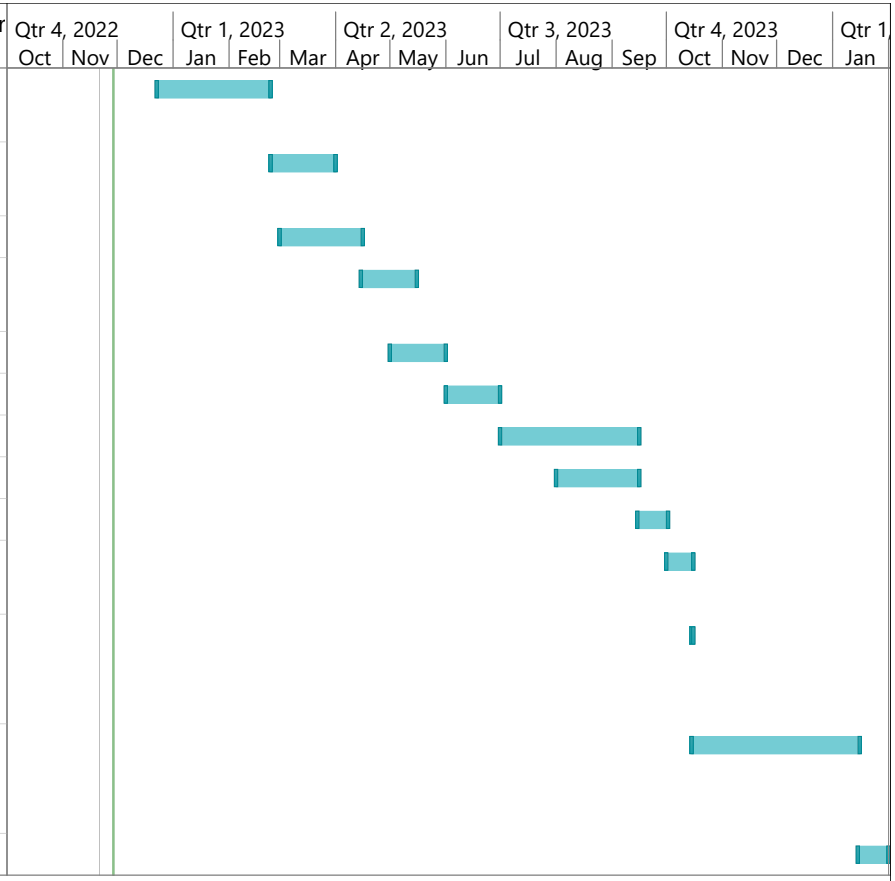
Date	Time	Operator Name/#	Vehicle ID	Applied Location	Vehicle Capacity (In Gallons)	Total Applied (In Gallons)

Date	Time	Wind Direction	Hourly Rain (inches)	Daily Rain (Inches)	Barometric Pressure (Inches Hg)	Wind Speed (MPH)	Dewpoint (Degrees F)	Ambient Air Temperature	Wind Chill (Degrees F)

Reports; APPENDIX J (To be Attached: Air Monitoring and Seismic Results)

Appendix K
Duck Creek Power Plant
Demolition Project
Schedule Gantt Chart

ID	Task Name	Start	Finish	Calendar Days
1	60 Day Notification Requirement and NESHAPS Notification	Fri 12/23/22	Thu 2/23/23	63
2	ACM / ORM Abatement, Oil Removal, and any necessary industrial cleaning	Fri 2/24/23	Fri 3/31/23	36
3	New Scrubber East of new stack	Wed 3/1/23	Sat 4/15/23	46
4	All other structures West of the power block. (except the new stack)	Sat 4/15/23	Mon 5/15/23	31
5	All structures North of the old stack	Mon 5/1/23	Wed 5/31/23	31
6	Balance of the coal handling structures	Thu 6/1/23	Fri 6/30/23	30
7	Precipitator/Scrubbers	Sat 7/1/23	Fri 9/15/23	77
8	Turbine Building	Tue 8/1/23	Fri 9/15/23	46
9	Gut bottom two floors of the Boilerhouse	Fri 9/15/23	Sun 10/1/23	17
10	Install protective measures to ensure Switchyard is not damaged	Sun 10/1/23	Sun 10/15/23	15
11	Explosives; new Stack 8:00 am; old stack 8:20 am; boilerhouse 8:40 am; turbine pedestals 9:00 am	Sun 10/15/23	Sun 10/15/23	1
12	Boiler House, two stacks, turbine pedestals: separate, process, and load out building materials	Sun 10/15/23	Mon 1/15/24	93
13	Backfill, site restoration	Mon 1/15/24	Wed 1/31/24	17



Project: Gantt Chart Duck Creek
Date: Tue 11/29/22

Task
Split
Milestone
Summary
Project Summary
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
External Tasks
External Milestone
Deadline
Progress
Manual Progress