P & A Engineers & Consultants, Inc.

312 Justice Avenue
Logan, WV 25601

Phone (304) 752-8320
Fax (304) 752-7488

February 14, 2018

Mr. William F. Durham, Director
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

RECEIVED
FEB 21 2018
WV DEP / DIV OF AIR QUALITY

RE: Southeastern Land, LLC
Coal Crushing/Screening
Facility ID: 059-00119

Dear Mr. Durham:

On behalf of Southeastern Land, LLC, we submit the enclosed Reg. 13 Permit Application to replace the General Permit Application that was previously withdrawn. The submittal fee is being held by OAQ and is to be applied to this application.

The application addresses the construction and operation of a coal crushing and screening plant facility to be located on the Twin Branch Surface Mine in Mingo County.

If additional information or clarification is needed, please contact me at the Logan address listed above or call 304-752-8320.

Sincerely,

Donna J. Toler
Air Quality Project Manager

donnatoler@suddenlink.net

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WVDAQ Reg. 13 Application

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WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street, SE
Charleston, WV 25304
(304) 926-0475
www.dep.wv.gov/daq

APPLICATION FOR NSR PERMIT AND TITLE V PERMIT REVISION (OPTIONAL)

PLEASE CHECK ALL THAT APPLY TO **NSR (45CSR13)** (IF KNOWN):

■ **CONSTRUCTION** ☐ **MODIFICATION** ☐ **RELOCATION**
☐ **CLASS I ADMINISTRATIVE UPDATE** ☐ **TEMPORARY**
☐ **CLASS II ADMINISTRATIVE UPDATE** ☐ **AFTER-THE-FACT**

PLEASE CHECK TYPE OF **45CSR30 (TITLE V)** REVISION (IF ANY):

☐ **ADMINISTRATIVE AMENDMENT** ☐ **MINOR MODIFICATION**
☐ **SIGNIFICANT MODIFICATION**

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS **ATTACHMENT S** TO THIS APPLICATION

FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

Section I. General

1. Name of applicant *(as registered with the WV Secretary of State's Office)*:
SOUTHEASTERN LAND, LLC

2. Federal Employer ID No. ***(FEIN)***:
26-1118578

3. Name of facility *(if different from above)*:
TWIN BRANCH FACILITY

4. The applicant is the:
☐ **OWNER** ☐ **OPERATOR** ■ **BOTH**

5A. Applicant's mailing address:
PO BOX 9, NAUGATUCK, WV 25685

5B. Facility's present physical address:
OFF 119s – TWIN BRANCH ROAD

6. **West Virginia Business Registration.** Is the applicant a resident of the State of West Virginia? ■ **YES** ☐ **NO**

➪ If **YES,** provide a copy of the **Certificate of Incorporation/Organization/Limited Partnership** (one page) including any name change amendments or other Business Registration Certificate as **Attachment A.**

➪ If **NO,** provide a copy of the **Certificate of Authority/Authority of L.L.C./Registration** (one page) including any name change amendments or other Business Certificate as **Attachment A.**

7. If applicant is a subsidiary corporation, please provide the name of parent corporation:

8. Does the applicant own, lease, have an option to buy or otherwise have control of the *proposed site?* ■ **YES** ☐ **NO**

If **YES,** please explain: **OWNER/OPERATOR**

➪ If **NO,** you are not eligible for a permit for this source.

9. Type of plant or facility (stationary source) to be **constructed, modified, relocated, administratively updated** or **temporarily permitted** (e.g., coal preparation plant, primary crusher, etc.): **Coal crushing and screening plant**

10. North American Industry Classification System **(NAICS)** code for the facility:
1221

11A. DAQ Plant ID No. (for existing facilities only):
059-00119

11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only):
None

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

12A.

- ➪ For **Modifications, Administrative Updates** or **Temporary permits** at an existing facility, please provide directions to the *present location* of the facility from the nearest state road;
- ➪ For **Construction** or **Relocation permits,** please provide directions to the *proposed new site location* from the nearest state road. Include a **MAP** as **Attachment B**.

From Charleston, take 119S past Fountain Place Mall in Logan – proceed on 119S for approximately 12 miles – mine entrance is located on (right side) Twin Branch Road before the Route 65 exit

12.B. New site address (if applicable):	12C. Nearest city or town: **Lenore**	12D. County: **Mingo**
12.E. UTM Northing (KM): **4185.69584** **Lat/Long: 37-48-46.6472 & 82-09-34.3691**	12F. UTM Easting (KM): **397.93510**	12G. UTM Zone: **17**

13. Briefly describe the proposed change(s) at the facility:
Construction and Operation of system

14A. Provide the date of anticipated installation or change: **05/15/17** ➪ If this is an **After-The-Fact** permit application, provide the date upon which the proposed change did happen: / /	14B. Date of anticipated Start-Up if a permit is granted: **05/15/17**

14C. Provide a **Schedule** of the planned **Installation** of/**Change** to and **Start-Up** of each of the units proposed in this permit application as **Attachment C** (if more than one unit is involved).

15. Provide maximum projected **Operating Schedule** of activity/activities outlined in this application:
Hours Per Day **10** Days Per Week **6** Weeks Per Year **50**

16. Is demolition or physical renovation at an existing facility involved? ☐ **YES** ■ **NO**

17. **Risk Management Plans.** If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see www.epa.gov/ceppo), submit your **Risk Management Plan (RMP)** to U. S. EPA Region III.

18. **Regulatory Discussion.** List all Federal and State air pollution control regulations that you believe are applicable to the proposed process *(if known)*. A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance *(if known)*. Provide this information as **Attachment D.**

Section II. Additional attachments and supporting documents.

19. Include a check payable to WVDEP – Division of Air Quality with the appropriate **application fee** (per 45CSR22 and 45CSR13).

20. Include a **Table of Contents** as the first page of your application package.

21. Provide a **Plot Plan,** e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is or is to be located as **Attachment E** (Refer to ***Plot Plan Guidance***) .
➪ Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).

22. Provide a **Detailed Process Flow Diagram(s)** showing each proposed or modified emissions unit, emission point and control device as **Attachment F.**

23. Provide a **Process Description** as **Attachment G.**
➪ Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable).

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

24. Provide **Material Safety Data Sheets (MSDS)** for all materials processed, used or produced as **Attachment H.**

⇨ For chemical processes, provide a MSDS for each compound emitted to the air.

25. Fill out the **Emission Units Table** and provide it as **Attachment I.**

26. Fill out the **Emission Points Data Summary Sheet (Table 1 and Table 2)** and provide it as **Attachment J.**

27. Fill out the **Fugitive Emissions Data Summary Sheet** and provide it as **Attachment K.**

28. Check all applicable **Emissions Unit Data Sheets** listed below:

☐ Bulk Liquid Transfer Operations	■ Haul Road Emissions	☐ Quarry
☐ Chemical Processes	☐ Hot Mix Asphalt Plant	☐ Solid Materials Sizing, Handling and Storage Facilities
☐ Concrete Batch Plant	☐ Incinerator	☐ Storage Tanks
☐ Grey Iron and Steel Foundry	☐ Indirect Heat Exchanger	
☐ General Emission Unit, specify		

Fill out and provide the **Emissions Unit Data Sheet(s)** as **Attachment L.**

29. Check all applicable **Air Pollution Control Device Sheets** listed below:

☐ Absorption Systems	☐ Baghouse	☐ Flare
☐ Adsorption Systems	☐ Condenser	☐ Mechanical Collector
☐ Afterburner	☐ Electrostatic Precipitator	☐ Wet Collecting System

☐ Other Collectors, specify

Fill out and provide the **Air Pollution Control Device Sheet(s)** as **Attachment M.**

30. Provide all **Supporting Emissions Calculations** as **Attachment N,** or attach the calculations directly to the forms listed in Items 28 through 31.

31. **Monitoring, Recordkeeping, Reporting and Testing Plans.** Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as **Attachment O.**

➢ Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.

32. **Public Notice.** At the time that the application is submitted, place a **Class I Legal Advertisement** in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and ***Example Legal Advertisement*** for details). Please submit the **Affidavit of Publication** as **Attachment P** immediately upon receipt.

33. **Business Confidentiality Claims.** Does this application include confidential information (per 45CSR31)?

☐ **YES** ■ **NO**

➢ If **YES,** identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's ***"Precautionary Notice – Claims of Confidentiality"*** guidance found in the ***General Instructions*** as **Attachment Q.**

Section III. Certification of Information

34. **Authority/Delegation of Authority.** Only required when someone other than the responsible official signs the application. Check applicable **Authority Form** below:

☐ Authority of Corporation or Other Business Entity	☐ Authority of Partnership
☐ Authority of Governmental Agency	☐ Authority of Limited Partnership

Submit completed and signed **Authority Form** as **Attachment R.**

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

Certification of Truth, Accuracy, and Completeness

I, the undersigned ☐ **Responsible Official** / ■ **Authorized Representative**, hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

SIGNATURE _____ *(Please use blue ink)* DATE: 1/15/18 *(Please use blue ink)*

35B. Printed name of signee: Larry D. Adams		35C. Title: Attorney-in-Fact
35D. E-mail: larry.a@czarky.net	36E. Phone: (859) 543-0740	36F. FAX: (859) 422-6919
36A. Printed name of contact person (if different from above): Larry Stanley		36B. Title: Manager – Permitting & Environmental Affairs
36C. E-mail: lstanley@bcothenergy.com	36D. Phone: (304) 235-7175	36E. FAX: (304) 235-7193

RECEIVED
FEB 21 2018
WV DEP / DIV OF AIR QUALITY

LIMITED POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that **Southeastern Land, LLC** ("Southeastern"). a Kentucky limited liability company, hereby constitutes and appoints **Larry D. Adams**, an employee of Matrix Energy. LLC, a Kentucky limited liability company and affiliate of Southeastern, its true and lawful attorney-in-fact and agent, with full power and authority to execute and deliver on behalf of Southeastern, all mining permit and related documentation required by the West Virginia Department of Environment Protection, or any other state or federal agency in order to participate in mining activities in State of West Virginia.

This Power of Attorney shall be effective as of its date of execution and shall remain in effect until revoked in writing. No person acting in reliance upon this power shall be charged with notice of any revocation hereof in the absence of actual knowledge of such revocation.

It is Southeastern's intention to grant to its attorney-in-fact full and complete authority to act for it and in its stead in the specific matter above described. In no event shall persons relying on this Power of Attorney be required to ascertain the authority of Southeastern's attorney-in-fact to act hereunder, and all persons dealing with said attorney-in-fact shall be entitled, in the absence of actual knowledge of revocation, to rely upon the authority of such person, and the acts of such person shall bind Southeastern and acquit persons dealing with my said attorney-in-fact to the same extent as if Southeastern had been acting in its own behalf.

IN TESTIMONY WHEREOF, witness my signature this 1st day of July, 2016

Southeastern Land, LLC

By: James H. Booth
James H. Booth, President

STATE OF KENTUCKY)
) SCT.
COUNTY OF MARTIN)

The foregoing Limited Power of Attorney was subscribed, sworn to and acknowledged before me on this the 1st day of July, 2016, by James H. Booth, President of **Southeastern Land, LLC**, a Kentucky limited liability company, for and on behalf of said company.

My Commission Expires:
08-18-2017

Cynthia Cline
Notary Public, State at Large, Kentucky

THIS INSTRUMENT PREPARED BY:

Tiffany J. Fannin
Legal Department
2408 Sir Barton Way, Suite 325
Lexington, KY 40509

CYNTHIA CLINE
Notary Public
State at Large
Kentucky
My Commission Expires Aug 18, 2017

WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION CERTIFICATE

ISSUED TO:
SOUTHEASTERN LAND, LLC
1441 RIVER FRONT RD
LOVELY, KY 41231-8983

BUSINESS REGISTRATION ACCOUNT NUMBER: **2333-9404**

This certificate is issued on: **07/5/2016**

This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code

The person or organization identified on this certificate is registered to conduct business in the State of West Virginia at the location above.

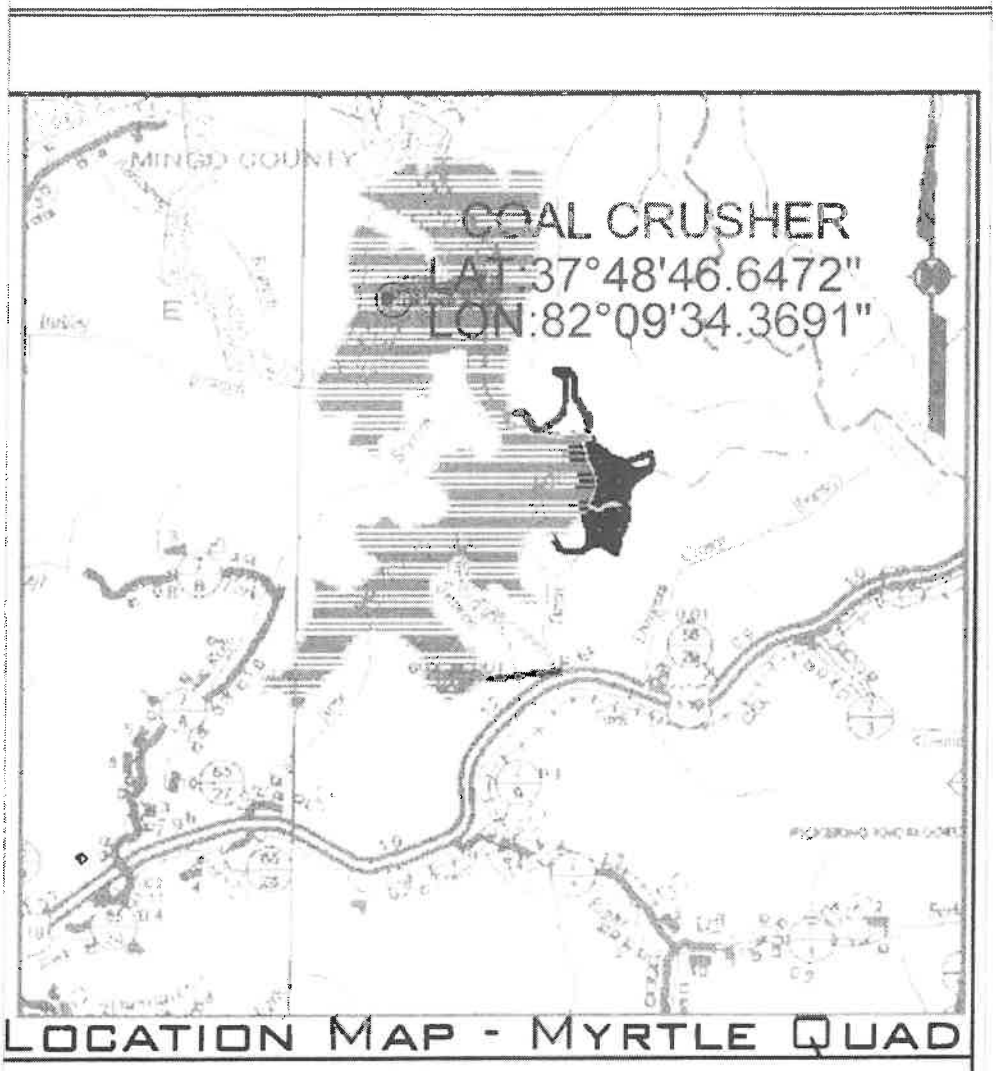
This certificate is not transferrable and must be displayed at the location for which issued

This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them. CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

atL006 v.4
L0742485824



LOCATION MAP - MYRTLE QUAD

NPDES PERMIT WV1020722

WV DEPT. OF HIGHWAYS
HARDEE AND HARVEY DISTRICT
OF MINGO COUNTY, WV
NEAREST P.O. HOLDEN
MYRTLE (NO. 500) QUADRANGLE

RECEIVING STREAMS:
TWIN BRANCH, LITTLE TWIN BRANCH, JIMS BRANCH, RIFFE BRANCH, ALL OF TRACE FORK OF PIGEON CREEK, & UNNAMED TRIBUTARIES OF LAUREL FORK, LAUREL FORK, ROAD FORK, STRAIGHT FORK, STURGELL FORK OF RIGHT FORK OF LAUREL FORK ALL OF PIGEON CREEK OF THE TUG RIVER.

ATTACHMENT C

SCHEDULE OF INSTALLATION AND START-UP

An application for the Twin Branch Crushing and Screening Plant Facility was originally submitted for a General Permit on March 30, 2017 for operation planned for May 2017. Dan Roberts determined that it did not meet the standards of the General Permit and requested additional NESAP fees on May 30, 2017 – those were received by OAQ on June 8, 2017. The facility did begin operations in June 2017.

With a change in engineering personnel at Southeastern Land, permission was not given to this writer to resubmit the application under Reg. 13 until this date.

Attachment D

Regulatory Discussion

There are no VOC's or hazardous air pollutants associated with the coal, limestone or magnetite processes, therefore, concern is for the emission of particulate matter and particulate matter less than 10 microns. Minor VOC's and hazardous air pollutants are associated with the burning of diesel fuel.

The permitted facility should comply with pertinent sections of the following rules and regulations:

45CSR5 – Prevent and Control Air Pollution from the Operation of Coal Preparation Plants and Coal Handling Operations

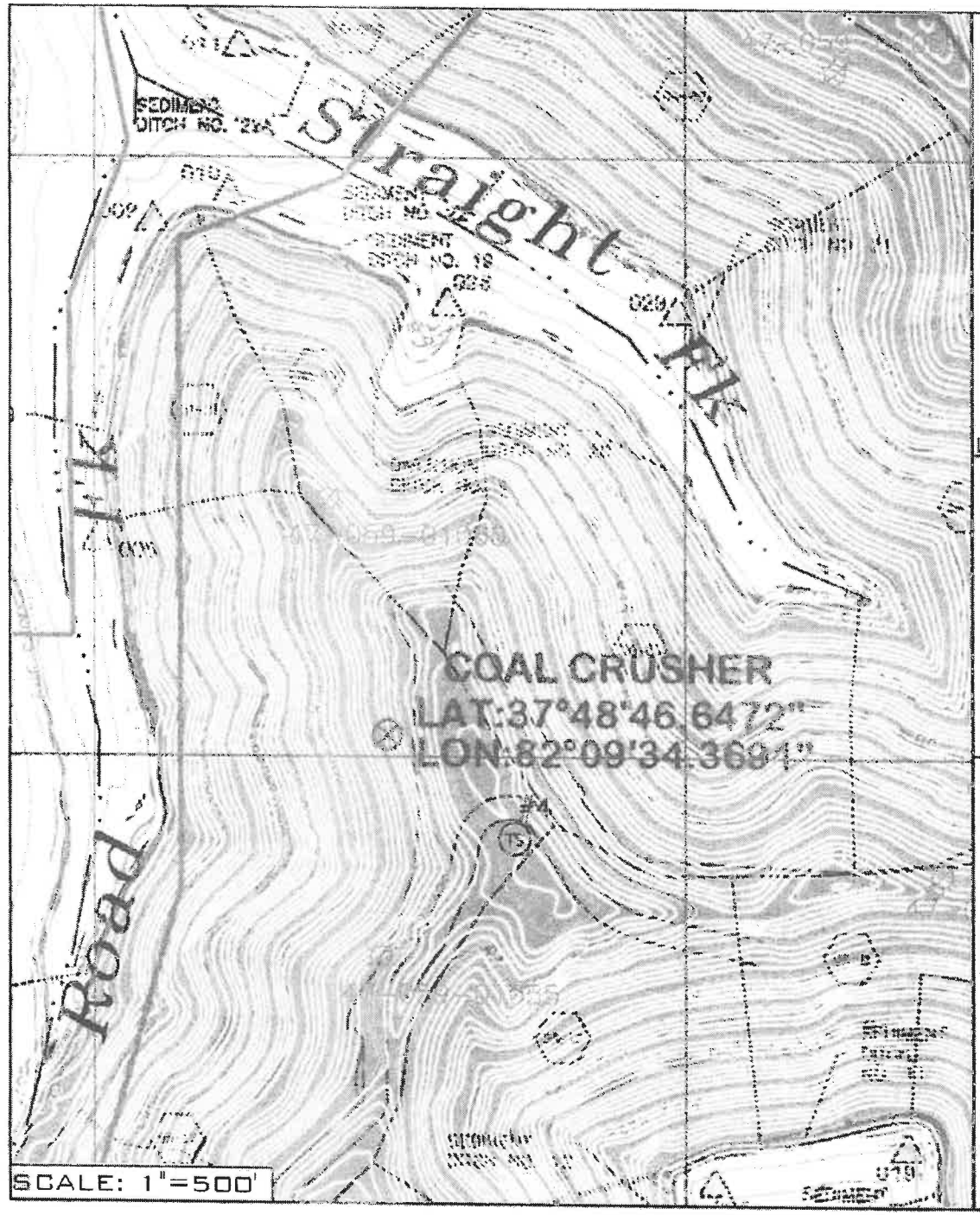
40CFR60, Subpart Y – Standards of Performance for Coal Preparation Plants

40CFR63 Subpart ZZZZ

45CSR13 Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation

45CSR15 NESAPS Requirements

45CSR30 Operating Permit Program



LOCATION MAP - MYRTLE QUAD

COAL CRUSHER

Prepared by:

ENGINEERS & CONSULTANTS

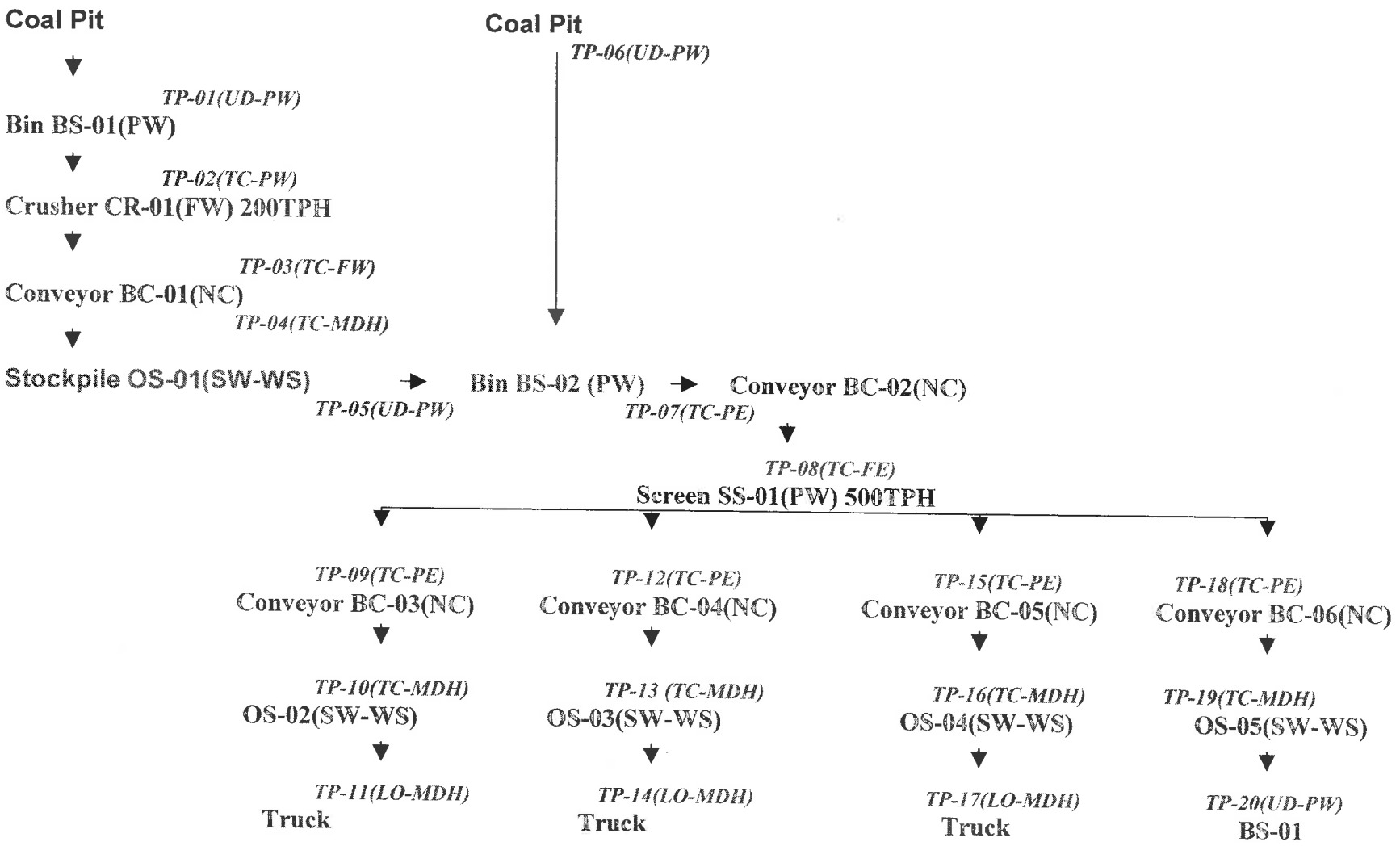
17045.dwg

03/07/17

SOUTHEASTERN LAND, LLC.
P.O. BOX 9
NAUGATUCK, WV 25685

DIVISION OF AIR QUALITY
SITE PLAN
FACILITY ID: PENDING

SOUTHEASTERN LAND, LLC
MATERIAL FLOW DIAGRAM – TWIN BRANCH
COAL CRUSHING/SCREENING PLANT



Facility ID Pending
Submittal March 2017

ATTACHMENT G

DETAILED PROCESS DESCRIPTION

The Twin Branch Surface Mine is located in a remote area of Mingo County, WV. Coal will be crushed at the pit by the Detroit Diesel 3-53, stockpiled, and screened thru the Chieftain 1700 DD Screen.

The coal will be pit-cleaned and fed by front-end loader to bin BS-01(PW) @ TP-01(UD-PW) which is a 3 yard bin and used for transfer purposes only; BS-01 will transfer to fully enclosed crusher w/water CR-01(FW) @ TP-02(TC-FW); to belt conveyor BC-01(NC) @ TP-03(TC-FW); to stockpile OS-01(SW-WS) @ TP-04(TC-MDH). Coal will then transfer from OS-01 @ TP-05(UD-PW) or directly from the coal pit @ TP-06(UD-PW) to 10 ton bin BS-02(PW). Bin BS-02 will transfer to the screen feed conveyor BC-02(NC) @ TP-07(TC-PE); to screen SS-01(PW) @ TP-08(TC-FE). Screen material will then be sent to any one of four belt conveyors BC-03(NC), BC-04(NC), BC-05(NC), or BC-06(NC) for transfer to the stockpiles OS-02(SW-WS), OS-03(SW-WS), OS-04(SW-WS) and OS-05(SW-WS) @ TP-09(TC-PE) thru TP-20(UD-PW). Stockpiles will then be loaded to truck for delivery. Oversize Stockpile OS-05 will be loaded backed to bin BS-01 by front-end loader for reprocessing.

The crusher feed bin will be used for coal transfer only and not storage, therefore, water sprays are not required but necessary as determined by this writer.

Attachment H

MSDS SHEETS

MSDS sheets for coal are not required for this section.

Attachment I – Crushers

Emission Units Table

(includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

Emission Unit ID[1]	Emission Point ID[2]	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type[3] and Date of Change	Control Device[4]
CR-01	**TP-02**	**Primary**	**1977**	**200**	**New**	**FW**

[1] For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation.
[2] For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.
[3] New, modification, removal
[4] For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

Attachment I – Screen

Emission Units Table

(includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

Emission Unit ID[1]	Emission Point ID[2]	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type[3] and Date of Change	Control Device[4]
SS-01	**TP-08**	**Powerscreen Chieftain 1700**	**2015**	**500**	**New**	**PW**

[1] For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation.
[2] For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.
[3] New, modification, removal
[4] For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

Attachment I – BELT CONVEYORS

Emission Units Table

(includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

Emission Unit ID[1]	Emission Point ID[2]	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type[3] and Date of Change	Control Device[4]
BC-01	TP-03	Belt Conveyor	1977	200	New	NC
BC-02	TP-07	Belt Conveyor	2015	500	New	NC
BC-03	TP-09	Belt Conveyor	2015	500	New	NC
BC-04	TP-12	Belt Conveyor	2015	500	New	NC
BC-05	TP-15	Belt Conveyor	2015	500	New	NC
BC-06	TP-18	Belt Conveyor	2015	500	New	NC

[1] For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation.
[2] For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.
[3] New, modification, removal
[4] For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

Attachment I – Bins

Emission Units Table

(includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

Emission Unit ID[1]	Emission Point ID[2]	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type[3] and Date of Change	Control Device[4]
BS-01	**TP-01**	**Receiving Crusher Bin**	**1977**	**3yd/4 ton**	**New**	**PW**
BS-02	**TP-05/06**	**Receiving Screen Bin**	**2015**	**10 ton**	**New**	**PW**

[1] For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation.
[2] For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.
[3] New, modification, removal
[4] For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

EMISSION POINTS DATA SUMMARY SHEET

Table 1: Emissions Data

Emission Point ID No. *(Must match Emission Units Table & Plot Plan)*	Emission Point Type[1]	Emission Unit Vented Through This Point *(Must match Emission Units Table & Plot Plan)*		Air Pollution Control Device *(Must match Emission Units Table & Plot Plan)*		Vent Time for Emission Unit *(chemical processes only)*		All Regulated Pollutants - Chemical Name/CAS[3] *(Speciate VOCs & HAPS)*	Maximum Potential Uncontrolled Emissions[4]		Maximum Potential Controlled Emissions[5]		Emission Form or Phase *(At exit conditions, Solid, Liquid or Gas/Vapor)*	Est. Method Used[6]	Emission Concentration[7] (ppmv or mg/m^4)
		ID No.	Source	ID No.	Device Type	Short Term[2]	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
	PLEASE SEE THE ATTACHED CALCULATIONS SPREADSHEETS IN SECTION N FOR PM AND PM10 POLLUTANTS – THERE ARE NO VOC'S OR HAP'S ASSOCIATED WITH COAL PROCESS														

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

[1] Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

[2] Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (ie., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).

[3] List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. **LIST** Acids, CO, CS_2, VOCs, H_2S, Inorganics, Lead, Organics, O_3, NO, NO_2, SO_2, SO_3, etc. **DO NOT LIST** CO_2, H_2, H_2O, N_2, O_2, and Noble Gases.

[4] Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[5] Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[6] Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

[7] Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m^3) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO_2, use units of ppmv (See 45CSR10).

Attachment K

FUGITIVE EMISSIONS DATA SUMMARY SHEET

The FUGITIVE EMISSIONS SUMMARY SHEET provides a summation of fugitive emissions. Fugitive emissions are those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening. Note that uncaptured process emissions are not typically considered to be fugitive, and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET.

Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions).

APPLICATION FORMS CHECKLIST - FUGITIVE EMISSIONS
1.) Will there be haul road activities? ☒ Yes ☐ No ☐ If YES, then complete the HAUL ROAD EMISSIONS UNIT DATA SHEET.
2.) Will there be Storage Piles? ☒ Yes ☐ No ☐ If YES, complete Table 1 of the NONMETALLIC MINERALS PROCESSING EMISSIONS UNIT DATA SHEET.
3.) Will there be Liquid Loading/Unloading Operations? ☐ Yes ■ No ☐ If YES, complete the BULK LIQUID TRANSFER OPERATIONS EMISSIONS UNIT DATA SHEET.
4.) Will there be emissions of air pollutants from Wastewater Treatment Evaporation? ☐ Yes ■ No ☐ If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
5.) Will there be Equipment Leaks (e.g. leaks from pumps, compressors, in-line process valves, pressure relief devices, open-ended valves, sampling connections, flanges, agitators, cooling towers, etc.)? ☐ Yes ■ No ☐ If YES, complete the LEAK SOURCE DATA SHEET section of the CHEMICAL PROCESSES EMISSIONS UNIT DATA SHEET.
6.) Will there be General Clean-up VOC Operations? ☐ Yes ■ No ☐ If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
7.) Will there be any other activities that generate fugitive emissions? ☐ Yes ■ No ☐ If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET or the most appropriate form.
If you answered "NO" to all of the items above, it is not necessary to complete the following table, "Fugitive Emissions Summary."

FUGITIVE EMISSIONS SUMMARY	All Regulated Pollutants - Chemical Name/CAS [1]	Maximum Potential Uncontrolled Emissions [2]		Maximum Potential Controlled Emissions [3]		Est. Method Used [4]
		lb/hr	ton/yr	lb/hr	ton/yr	
Haul Road/Road Dust Emissions Paved Haul Roads						
Unpaved Haul Roads	**Particulate Matter**	**1126.95**	**2036.64**	**338.09**	**610.99**	**MB**
Storage Pile Emissions	**Particulate Matter**	**0.28**	**1.24**	**0.07**	**0.31**	**MB**
Loading/Unloading Operations						
Wastewater Treatment Evaporation & Operations						
Equipment Leaks		Does not apply		Does not apply		
General Clean-up VOC Emissions						
Other						

[1] List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS_2, VOCs, H_2S, Inorganics, Lead, Organics, O_3, NO, NO_2, SO_2, SO_3, etc. DO NOT LIST CO_2, H_2, H_2O, N_2, O_2, and Noble Gases.
[2] Give rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).
[3] Give rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).
[4] Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

Attachment L
FUGITIVE EMISSIONS FROM UNPAVED HAULROADS

UNPAVED HAULROADS (including all equipment traffic involved in process, haul trucks, endloaders, etc.)

		PM	PM-10
k =	Particle size multiplier	0.80	0.36
s =	Silt content of road surface material (%)	10	10
p =	Number of days per year with precipitation >0.01 in.	157	157

Item Number	Description	Number of Wheels	Mean Vehicle Weight (tons)	Mean Vehicle Speed (mph)	Miles per Trip	Maximum Trips per Hour	Maximum Trips per Year	Control Device ID Number	Control Efficiency (%)
1	Trucks out OS-02	18	30	15	2	16.6	60,000	HR-WS	70
2	Trucks out OS-03	18	30	15	2	16.6	60,000	HR-WS	70
3	Trucks out OS-04	18	30	15	2	16.6	60,000	HR-WS	70
4	Endloaders	2	20	5	0.01	25	90,000	HR-WS	70
5									
6									

Source: *AP-42 Fifth Edition – 13.2.2 Unpaved Roads*

$E = k \times 5.9 \times (s \div 12) \times (S \div 30) \times (W \div 3)^{0.7} \times (w \div 4)^{0.5} \times ((365 - p) \div 365) =$ lb/Vehicle Mile Traveled (VMT)

Where:

		PM	PM-10
k =	Particle size multiplier	0.80	0.36
s =	Silt content of road surface material (%)	9	9
S =	Mean vehicle speed (mph)	15	15
W =	Mean vehicle weight (tons)	30	30
w =	Mean number of wheels per vehicle	18	18
p =	Number of days per year with precipitation >0.01 in.	157	157

For lb/hr: [lb ÷ VMT] × [VMT ÷ trip] × [Trips ÷ Hour] = lb/hr

For TPY: [lb ÷ VMT] × [VMT ÷ trip] × [Trips ÷ Hour] × [Ton ÷ 2000 lb] = Tons/year

SUMMARY OF UNPAVED HAULROAD EMISSIONS

Item No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1	374.87	677.47	112.46	203.24	108.34	195.79	32.50	58.74
2	374.87	677.47	112.46	203.24	108.34	195.79	32.50	58.74
3	374.87	677.47	112.46	203.24	108.34	195.79	32.50	58.74
4	2.35	4.23	0.71	1.27	0.68	1.22	0.20	0.37
5								
6								
TOTALS	1126.95	2036.64	338.09	610.99	325.70	588.60	97.71	176.58

FUGITIVE EMISSIONS FROM PAVED HAULROADS

INDUSTRIAL PAVED HAULROADS (including all equipment traffic involved in process, haul trucks, endloaders, etc.)

I =	Industrial augmentation factor (dimensionless)	**1**
n =	Number of traffic lanes	**2**
s =	Surface material silt content (%)	**9**
L =	Surface dust loading (lb/mile)	**13300**

Item Number	Description	Mean Vehicle Weight (tons)	Miles per Trip	Maximum Trips per Hour	Maximum Trips per Year	Control Device ID Number	Control Efficiency (%)
1							
2							
3							
4							
5							
6							
7							
8							

Source: *AP-42 Fifth Edition – 11.2.6 Industrial Paved Roads*

$E = 0.077 \times I \times (4 \div n) \times (s \div 10) \times (L \div 1000) \times (W \div 3)^{0.7}$ = lb/Vehicle Mile Traveled (VMT)

Where:

I =	Industrial augmentation factor (dimensionless)	**1**
n =	Number of traffic lanes	**2**
s =	Surface meterial silt content (%)	**3**
L =	Surface dust loading (lb/mile)	**5**
W =	Average vehicle weight (tons)	**50**

For lb/hr: [lb ÷ VMT] × [VMT ÷ trip] × [Trips ÷ Hour] = lb/hr

For TPY: [lb ÷ VMT] × [VMT ÷ trip] × [Trips ÷ Hour] × [Ton ÷ 2000 lb] = Tons/year

SUMMARY OF PAVED HAULROAD EMISSIONS

Item No.	Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY
1				
2				
3				
4				
5				
6				
7				
8				
TOTALS				

ATTACHMENT M

DESCRIPTION OF FUGITIVE EMISSIONS

Potential sources of fugitive particulate emissions for this facility include emissions, which are not captured by pollution control equipment and emissions from open stockpiles and vehicular traffic on unpaved haulroads and work areas. The haulroads and work areas will be controlled by water truck. The stockpile areas will be controlled by water truck with pressurized pumps sufficient to control emissions. The water truck will be operated three times daily, and more as needed in dry periods.

An additive to prevent freezing will be utilized in the winter months when freezing conditions are present. New course rock base material will be added to unpaved haulroads as needed.

INPUTS

Include all information for each emission source and transfer point as listed in the permit application.

Name of applicant: Southeastern Land
Name of plant: Twin Branch Plant
Based on 3600 hours

1. CRUSHING AND SCREENING (including all primary and secondary crushers and screens)

1a. PRIMARY CRUSHING

Primary Crusher ID Number	Description	Maximum Material Processing Capacity TPH	Maximum Material Processing Capacity TPY	Control Device ID Number	Control Efficiency %
CR-01	Detroit Diesel 3-53	200	720,000	FW	90

1b. SECONDARY AND TERTIARY CRUSHING

Secondary & Tertiary Crusher ID	Description	Maximum Material Processing Capacity TPH	Maximum Material Processing Capacity TPY	Control Device ID Number	Control Efficiency %

1c. SCREENING

Secondary & Tertiary Crusher ID	Description	Maximum Material Processing Capacity TPH	Maximum Material Processing Capacity TPY	Control Device ID Number	Control Efficiency %	
SS-01	POwerscreen Chieftain 1700	500	1,800,000	FW	80	Based on 3600 hrs

2. *TRANSFER POINTS (including all conveyor transfer points, equipment transfer points etc.)*

		PM	PM-10
k =	Particle Size Multiplier (dimensionless)	0.74	0.35
U =	Mean Wind Speed (mph)	7	

Transfer Point ID No.	Transfer Point Description Include ID Numbers of all conveyors, crushers, screens, stockpiles, etc. involved	Material Moisture Content %	Maximum Transfer Rate TPH	Maximum Transfer Rate TPY	Control Device ID Number	Control Efficiency %
TP01	Coal Pit to Bin BS-01	5	200	720,000	UD-PW	80
TP02	BS-01 to CR-01	5	200	720,000	TC-FW	90
TP03	CR-01 TO BC-01	5	200	720,000	TC-FW	90
TP04	BC-01 to OS-01	5	200	720,000	TC-MDH	0
TP05	OS-01 to BS-02	5	200	720,000	UD-PW	80
TP06	Coal Pit to BS-02	5	500	1,800,000	UD-PW	80
TP07	BS-02 to BC-02	5	500	1,800,000	TC-PE	50
TP08	BC-02 to SS-01	5	500	1,800,000	TC-FE	80
TP09	SS-01 to BC-03	5	500	1,800,000	TC-PE	50
TP10	BC-03 to OS-02	5	500	1,800,000	TC-MDH	0
TP11	OS-02 to Truck	5	500	1,800,000	LO-MDH	0
TP12	SS-01 to BC-04	5	500	1,800,000	TC-PE	50
TP13	BC-04 to OS-03	5	500	1,800,000	TC-MDH	0
TP14	OS-03 to Truck	5	500	1,800,000	LO-MDH	0
TP15	SS-01 to BC-05	5	500	1,800,000	TC-PE	50
TP16	BC-05 to OS-04	5	500	1,800,000	TC-MDH	0
TP17	OS-04 to Truck	5	500	1,800,000	LO-MDH	0
TP18	SS-01 to BC-06	5	500	1,800,000	TC-PE	50
TP19	BC-06 to OS-05	5	500	1,800,000	TC-MDH	0
TP20	OS-05 to back to BS-01	5	500	1,800,000	UD-PW	80

3. WIND EROSION OF STOCKPILES *(including all stockpiles of raw coal, clean coal, coal refuse, etc.)*

p =	number of days per year with precipitation >0.01 inch	157
f =	percentage of time that the unobstructed wind speed exceeds 12 mph at the mean pile height	20

Source ID No.	Stockpile Description	Silt Content of Material %	Stockpile base area Max. sqft	Control Device ID Number	Control Efficiency %
OS-01	Coal	5	8,869	SW-WS	75
OS-02	Coal	5	8,869	SW-WS	75
OS-03	Coal	5	8,869	SW-WS	75
OS-04	Coal	5	8,869	SW-WS	75
OS-05	Coal	5	8,869	SW-WS	75

4. UNPAVED HAULROADS *(including all equipment traffic involved in process, haul trucks, endloaders, etc.)*

s =	silt content of road surface material (%)	9
p =	number of days per year with precipitation >0.01 inch	157
M_{dry} =	surface material moisture content (%) - dry conditions	0.2

Item Number	Description	Number of wheels	Mean Vehicle Weight(tons)	Mean Vehicle Speed (mph)	Miles per Trip	Maximum Trips Per Hour	Maximum Trips Per Year	Control Device ID Number	Control Efficiency %
1	Trucks out OS-02 1,800,000	18	30	15	2	16.6	60,000	HR-WS	70
2	Trucks out OS-03 1,800,000	18	30	15	2	16.6	60,000	HR-WS	70
3	Trucks out OS-04 1,800,000	18	30	15	2	16.6	60,000	HR-WS	70
4									
5	Endloaders 1,800,000	2	20	5	0.01	25	90,000	HR-WS	70
6									
7	based on 3600 hours								
8									

5. INDUSTRIAL PAVED HAULROADS *(including all equipment traffic involved in process, haul trucks, endloaders, etc.)*

sL =	road surface silt loading, (g/ft^2)	1
P =	number of days per year with precipitation >0.01 inch	157

Item Number	Description	Mean Vehicle Weight (tons)	Miles per Trip	Maximum Trips Per Hour	Maximum Trips Per Year	Control Device ID Number	Control Efficiency %
1							
2							
3							
4							
5							
6							
7							
8							

EMISSIONS SUMMARY

Name of applicant: Southeastern Land
Name of plant: Twin Branch Plant

Particulate Matter or PM (for 45CSR14 Major Source Determination)

	Uncontrolled PM		Controlled PM	
	lb/hr	TPY	lb/hr	TPY
FUGITIVE EMISSIONS				
Stockpile Emissions	0.28	1.24	0.07	0.31
Unpaved Haulroad Emissions	1,126.95	2,036.64	338.09	610.99
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
Fugitive Emissions Total	**1,127.24**	**2,037.89**	**338.16**	**611.30**
POINT SOURCE EMISSIONS				
Equipment Emissions	54.00	97.20	10.40	18.72
Transfer Point Emissions	8.64	15.56	5.46	9.83
Point Source Emissions Total*	**62.64**	**112.76**	**15.86**	**28.55**
Facility Emissions Total	**1,189.88**	**2,150.64**	**354.02**	**639.85**

*Note: Point Source Total Controlled PM TPY emissions is used for 45CSR14 Major Source determination (see below)

***Facility Potential to Emit (PTE) (Baseline Emissions) = 28.55**

(Based on Point Source Total controlled PM TPY emissions from above) ENTER ON LINE 26 OF APPLICATION

Particulate Matter under 10 microns, or PM-10 (for 45CSR30 Major Source Determination)

	Uncontrolled PM-10		Controlled PM-10	
	lb/hr	TPY	lb/hr	TPY
FUGITIVE EMISSIONS				
Stockpile Emissions	0.13	0.58	0.03	0.15
Unpaved Haulroad Emissions	325.70	588.60	97.71	176.58
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
Fugitive Emissions Total	**325.83**	**589.19**	**97.74**	**176.73**
POINT SOURCE EMISSIONS				
Equipment Emissions	25.38	45.68	4.89	8.80
Transfer Point Emissions	4.09	7.36	2.58	4.65
Point Source Emissions Total*	**29.47**	**53.04**	**7.47**	**13.45**
Facility Emissions Total	**355.30**	**642.23**	**105.21**	**190.17**

*Note: Point Source Total Controlled PM-10 TPY emissions is used for 45CSR30 Major Source determination

1. Emissions From CRUSHING AND SCREENING

1a. Primary Crushing

Primary Crusher ID Number	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
CR-01	4.000	7.200	0.400	0.720	1.880	3.384	0.188	0.338
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	4.000	7.200	0.400	0.720	1.880	3.384	0.188	0.338

1b. Secondary and Tertiary Crushing

Secondary & Tertiary Crusher ID	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1c. Screening

Screen ID Number	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
SS-01	50.000	90.000	10.000	18.000	23.500	42.300	4.700	8.460
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	50.000	90.000	10.000	18.000	23.500	42.300	4.700	8.460

Crushing and Screening	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
TOTAL	54.000	97.200	10.400	18.720	25.380	45.684	4.888	8.798

1. Emissions From CRUSHING AND SCREENING (Continued)

EMISSION FACTORS

source: Air Pollution Engineering Manual and References

(lb/ton of material throughput)

PM	
Primary Crushing	0.02
Tertiary Crushing	0.06
Screening	0.1

PM-10	
Primary Crushing	0.0094
Tertiary Crushing	0.0282
Screening	0.047

2. *Emissions From TRANSFER POINTS*

Transfer Point ID No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
TP01	0.203	0.366	0.041	0.073	0.096	0.173	0.019	0.035
TP02	0.203	0.366	0.020	0.037	0.096	0.173	0.010	0.017
TP03	0.203	0.366	0.020	0.037	0.096	0.173	0.010	0.017
TP04	0.203	0.366	0.203	0.366	0.096	0.173	0.096	0.173
TP05	0.203	0.366	0.041	0.073	0.096	0.173	0.019	0.035
TP06	0.508	0.915	0.102	0.183	0.240	0.433	0.048	0.087
TP07	0.508	0.915	0.254	0.458	0.240	0.433	0.120	0.216
TP08	0.508	0.915	0.102	0.183	0.240	0.433	0.048	0.087
TP09	0.508	0.915	0.254	0.458	0.240	0.433	0.120	0.216
TP10	0.508	0.915	0.508	0.915	0.240	0.433	0.240	0.433
TP11	0.508	0.915	0.508	0.915	0.240	0.433	0.240	0.433
TP12	0.508	0.915	0.254	0.458	0.240	0.433	0.120	0.216
TP13	0.508	0.915	0.508	0.915	0.240	0.433	0.240	0.433
TP14	0.508	0.915	0.508	0.915	0.240	0.433	0.240	0.433
TP15	0.508	0.915	0.254	0.458	0.240	0.433	0.120	0.216
TP16	0.508	0.915	0.508	0.915	0.240	0.433	0.240	0.433
TP17	0.508	0.915	0.508	0.915	0.240	0.433	0.240	0.433
TP18	0.508	0.915	0.254	0.458	0.240	0.433	0.120	0.216
TP19	0.508	0.915	0.508	0.915	0.240	0.433	0.240	0.433
TP20	0.508	0.915	0.102	0.183	0.240	0.433	0.048	0.087
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

2. *Emissions From TRANSFER POINTS (continued)*

Transfer Point ID No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTALS	8.643	15.557	5.460	9.828	4.088	7.358	2.583	4.649

Source:
AP42, Fifth Edition, Revised 11/2006
13.2.4 Aggregate Handling and Storage Piles

Emissions From Batch Drop

E = k*(0.0032) * [(U/5)^1.3]/[(M/2)^1.4] = pounds/ton

Where:

		PM	PM-10
k =	Particle Size Multiplier (dimensionless)	0.74	0.35
U =	Mean Wind Speed (mph)		
M =	Material Moisture Content (%)		

Assumptions:

k - Particle size multiplier
For PM (< or equal to 30um) k = 0.74
For PM-10 (< or equal to 10um) k = 0.35

Emission Factor
For PM E= $I$88*(0.0032)*((((Inputs!$I$72)/5)^1.3)/(((Inputs!G78+0.000000001)/2)^1.4)
=lb/ton

For PM-10 E= $J$88*(0.0032)*((((Inputs!$I$72)/5)^1.3)/(((Inputs!G78+0.000000001)/2)^1.4
=lb/ton

For lb/hr [lb/ton]*[ton/hr] = [lb/hr]

For Tons/year [lb/ton]*[ton/yr]*[ton/2000lb] = [ton/yr]

3. Emissions From WIND EROSION OF STOCKPILES

Stockpile ID No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
OS-01	0.057	0.248	0.014	0.062	0.027	0.117	0.007	0.029
OS-02	0.057	0.248	0.014	0.062	0.027	0.117	0.007	0.029
OS-03	0.057	0.248	0.014	0.062	0.027	0.117	0.007	0.029
OS-04	0.057	0.248	0.014	0.062	0.027	0.117	0.007	0.029
OS-05	0.057	0.248	0.014	0.062	0.027	0.117	0.007	0.029
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTALS	0.284	1.242	0.071	0.311	0.133	0.584	0.033	0.146

Source:
Air Pollution Engineering Manual

Storage Pile Wind Erosion (Active Storage)

E = 1.7*[s/1.5]*[(365-p)/235]*[f/15] = (lb/day/acre)

Where:

s =	silt content of material
p =	number of days with >0.01 inch of precipitation per year
f =	percentage of time that the unobstructed wind speed
	exceeds 12 mph at the mean pile height

Emission Factors

For PM E=(1.7)*((Inputs!F147)/1.5)*((365-Inputs!I139)/235)*((Inputs!I140)/15)

For PM-10 E=0.47*(1.7)*((Inputs!F147)/1.5)*((365-Inputs!I139)/235)*((Inputs!I140)/15)

For lb/hr [lb/day/acre]*[day/24hr]*[base area of pile (acres)] = lb/hr

For Ton/yr [lb/day/acre]*[365day/yr]*[Ton/2000lb]*[base area of pile (acres)] = Ton/yr

4. Emissions From UNPAVED HAULROADS

Item No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1	374.87	677.47	112.46	203.24	108.34	195.79	32.50	58.74
2	374.87	677.47	112.46	203.24	108.34	195.79	32.50	58.74
3	374.87	677.47	112.46	203.24	108.34	195.79	32.50	58.74
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	2.35	4.23	0.71	1.27	0.68	1.22	0.20	0.37
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	1126.95	2036.64	338.09	610.99	325.70	588.60	97.71	176.58

Source:
AP42, Fifth Edition, Revised 11/2006
13.2.2 Unpaved Roads

Emission Estimate For Unpaved Haulroads at Industrial Sites (equation 1)

E= k*((s/12)^a)*((W/3)^b) =lb/vmt

Where:

		PM	PM-10
k =	particle size multiplier	4.90	1.50
a =	empirical constant	0.7	0.9
b =	empirical constant	0.45	0.45

Emission Factors

For PM E= (($I$35)*(((Inputs!$I$163)/12)^($I$36))*(((Inputs!H171)/3)^$I$37))

For PM-10 E= (($J$35)*(((Inputs!$I$163)/12)^($J$36))*(((Inputs!H171)/3)^$J$37))

For lb/hr (lb/vmt)*(miles per trip)*(Max trips per hour)

For Ton/yr (lb/vmt)*(miles per trip)*(Max trips per year)*(1/2000)

5. Emissions From INDUSTRIAL PAVED HAULROADS

Item No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source:
AP42, Fifth Edition, Revised 11/2006
13.2.1 PAVED ROADS

Emission Estimate For Paved Haulroads

E = [k * (sL/2)^0.65 * (W/3)^1.5 - C] * (1 - (P/4*N) = lb / Vehicle Mile Traveled (VMT)

Where:

		PM	PM-10
k =	particle size multiplier	0.082	0.016
sL =	road surface silt loading, (g/ft^2)	1	
P =	number of days per year with precipitation >0.01 inch	157	
N =	number of days in averaging period	365	
C=	factor for exhaust, brake wear and tire wear	0.0047	0.0047

Emission Factors

For PM E= ($I$34*((($I$35)/2)^0.65)*(((Inputs!G190)/3)^1.5)-($I$38))*(1-((Inputs!I

For PM-10 E= ($J$34)*((($I$35)/2)^0.65)*(((Inputs!G190)/3)^1.5))-($I$38))*(1-((Inputs!$

For lb/hr (lb/vmt)*(miles per trip)*(Max trips per hour)

For Ton/yr (lb/vmt)*(miles per trip)*(Max trips per year)*(1/2000)

Attachment O

Monitoring, Recordkeeping, Reporting, and Testing

Pursuant to 40CFR60 Subpart Y, the owner or operator of a coal preparation and processing plant that commenced construction, reconstruction, or modification after April 28, 2008, shall maintain in a logbook (written or electronic) on-site and make it available upon request. The logbook shall record the following:

1. The manufacturer's recommended maintenance procedures and the date and time of any maintenance and inspection activities and the results of those activities. Any variance from manufacturer recommendation, if any, shall be noted. All air pollution control equipment will be maintained regularly in accordance with recommendation of the manufacturer. If no such recommendations are available, such equipment will be properly maintained to ensure effective and proper operation of the equipment and/or systems.

2. The date and time of periodic coal preparation and processing plant visual observations, noting those sources with visible emissions along with corrective actions taken to reduce visible emissions. Results from the actions shall be noted.

3. The amount and type of coal processed each calendar month.

4. The amount of chemical stabilizer or water purchased for use in the coal preparation and processing plant.

5. Monthly certification that the dust suppressant systems were operational when any coal was processed and that manufacturer's recommendations were followed for all control systems. Any variance from the manufacturer's recommendations, if any, shall be noted.

6. Monthly certification that the fugitive coal dust emissions control plan was implemented as described. Any variance from the plan, if any, shall be noted. A copy of the applicable fugitive coal dust emissions control plan and any letters from the Administrator providing approval of any alternative control measures shall be maintained with the logbook. Any actions, *e.g.* objections, to the plan and any actions relative to the alternative control measures, *e.g.* approvals, shall be noted in the logbook as well.

In accordance with 45CRS30, a Certified Emissions Statement will be filed annually and the appropriate fee paid.

MONITORING REQUIREMENTS

For the purpose of determining compliance with the opacity limits of 45CSR5 and 40CFR60 Subpart Y, the shift supervisor shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

a. The visible emission check shall determine the presence or absence of visible emissions.

b. Visible emission checks or Method 22 observations shall be conducted at least once per calendar month with a maximum of forty-five(45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible

emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

c. If visible emissions are present at a source(s) for three (3) consecutive monthly checks, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of Method 9 as soon as practicable, but within seventy-two (72) hours of the final visual emission check. A Method 9 observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.

Legal Advertisement

AIR QUALITY PERMIT NOTICE
Notice of Application

Notice is given that Southeastern Land, LLC has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Reg. 13 Permit for a Coal Crushing and Screening Plant System to be located on Twin Branch Surface Mine, near Lenore in Mingo County, West Virginia. The facility coordinates are as follows: latitude 37.812958 and longitude –82.159547.

The applicant estimates the potential to discharge the following Regulated Air Pollutants from the diesel combustion engines will be: criteria pollutants for the engine is estimated to be: NOx 11.83 tons per year, CO 2.549 tons per year, VOC 0.943 tons per year, SOx 0.783 tons per year and PM10 0.84 tons per year. The potential to emit hazardous pollutants from the engine is estimated to be: Benzene 0.004848 tons per year, Toluene 0.002125 tons per year, Xylene 0.001481 tons per year, Acetaldehyde 0.003985 tons per year, Acrolein 0.00048 tons per year, Formaldehyde 0.006131 tons per year and Naphthalene 0.00044 tons per year.

The applicant estimates the potential to discharge the following Regulated Air Pollutants associated with the operation of the crushing/screening plant will be: facility particulate matter potential to emit baseline emissions of 29 tons per year, particulate matter less than 10 microns emissions total of 13 tons per year and particulate matter facility emissions total of 640 tons per year.

Startup of operation is planned to begin upon permit approval. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1250, during normal business hours.

Dated this the 21th day of February 2018

By: Southeastern Land, LLC
Larry D. Adams
Attorney In Fact
PO Box 9
Naugatuck, WV 25685

SOUTHEASTERN LAND, LLC
COAL CRUSHING/SCREENING PLANT ID No. PENDING
DETROIT DIESEL 3-53

TERIA POLLUTANTS

AP-42 5th Edition Section 3.3 Gasoline and Diesel Industrial Engines (10/96) - Table 3.3-1 for Diesel Fuel

	75	**kW**	
Detroit Diesel Fuel Engine	**101**	**hp**	
Max. Hours of Operation (8 hrs/day, 5 days/week, 50 weeks/year)	**3600**	**hrs/year**	
Heating Value for diesel	**19300**	**Btu/gal**	
	14	**GPH**	(According to operators

E (hourly) = Emission Factor (lb/hp-hr) * Horse Power (hp)
E (annual) = Emission Factor (lb/hp-hr) * Horse Power (hp) * Maximum Hours of Operation * 1 ton per 2000 lb

Pollutant		Emission Factor (lb/hp-hr)	Emission Factor (lb/MMBtu)	Rating	lb/hour	TPY
NOx	AP42	0.03100	4.41	D	3.1310	5.636
CO	AP42	0.00668	0.95	D	0.6747	1.214
SOx	AP42	0.00205	0.29	D	0.2071	0.373
PM/PM10	AP42	0.00220	0.31	D	0.2222	0.400
VOC	AP42	0.00247	0.35	D	0.2495	0.449

HAZARDOUS AIR POLLUTANTS

42 5th Edition Section 3.3 Gasoline and Diesel Industrial Engines (10/96) - Table 3.3-2
CSR30 Table 45-30A Hazardous Air Pollutants

Detroit Diesel Fuel Engine	**101**	**hp**
ximum Hours of Operation (10hrs/day, 6 days/week, 50 weeks/year)	**3600**	**hours/year**
cation, based on EPA WebFIRE/AP-42 3.4-1 assumptions on diesel	**19300**	**Btu/lb**
	7.1	**lb/gal**
Heating Value for diesel	**134900**	**BTU/US gal**
Maximum diesel usage at 2800 rpm	**14**	**gal/hour** **(based on known usag**

E (hourly) = Emission Factor (lb/hp-hr) * Horse Power (hp)
E (annual) = Emission Factor (lb/hp-hr) * Horse Power (hp) * Maximum Hours of Operation * 1 ton per 2000 lb

CAS NO.		Emission Factor (lb/MMBtu)	Rating	lb/hour	TPY
71-43-2	Benzene	0.000933	E	0.00176	0.003172
108-88-3	Toluene	0.000409	E	0.00077	0.00139
	Xylenes	0.000285	E	0.00054	0.000969
	1,3-Butadiene	0.0000391	E	7.4E-05	0.000133
50-00-0	Formaldehyde	0.00118	E	0.00223	0.004011
	Acetaldehyde	0.000767	E	0.00145	0.002607
	Acrolein	0.0000925	E	0.00017	0.000314
91-20-3	Naphthalene	0.0000848	E	0.00016	0.000288
	Burning diesel fuel:		***Total HAPs***	**0.00716**	**0.012885**
				lb/hour	**TPY**

SOUTHEASTERN LAND, LLC
COAL SCREENING PLANT

ID No. PENDING
POWER SCREEN CHIEFTAIN 1700

'TERIA POLLUTANTS

AP-42 5th Edition Section 3.3 Gasoline and Diesel Industrial Engines (10/96) - Table 3.3-1 for Diesel Fuel

	83	**kW**
Caterpillar C4.4 Diesel Fuel Engine	**111**	**hp**
Max. Hours of Operation (8 hrs/day, 5 days/week, 50 weeks/year)	**3600**	**hrs/year**
Heating Value for diesel	**19300**	**Btu/gal**
	7.4	**GPH**

E (hourly) = Emission Factor (lb/hp-hr) * Horse Power (hp)
E (annual) = Emission Factor (lb/hp-hr) * Horse Power (hp) * Maximum Hours of Operation * 1 ton per 2000 lb

Pollutant		Emission Factor (lb/hp-hr)	Emission Factor (lb/MMBtu)	Rating	lb/hour	TPY
NOx	AP42	0.03100	4.41	D	3.4410	6.194
CO	AP42	0.00668	0.95	D	0.7415	1.335
SOx	AP42	0.00205	0.29	D	0.2276	0.410
PM/PM10	AP42	0.00220	0.31	D	0.2442	0.440
VOC	AP42	0.00247	0.35	D	0.2742	0.494

HAZARDOUS AIR POLLUTANTS

42 5th Edition Section 3.3 Gasoline and Diesel Industrial Engines (10/96) - Table 3.3-2
SR30 Table 45-30A Hazardous Air Pollutants

Caterpillar C4.4 Diesel Fuel Engine	**111**	**hp**	
ximum Hours of Operation (10hrs/day, 6 days/week, 50 weeks/year)	**3600**	**hours/year**	
cation, based on EPA WebFIRE/AP-42 3.4-1 assumptions on diesel	**19300**	**Btu/lb**	
	7.1	**lb/gal**	
Heating Value for diesel	**134900**	**BTU/US gal**	
Maximum diesel usage at 2200 rpm	**7.4**	**gal/hour**	**based on kw**

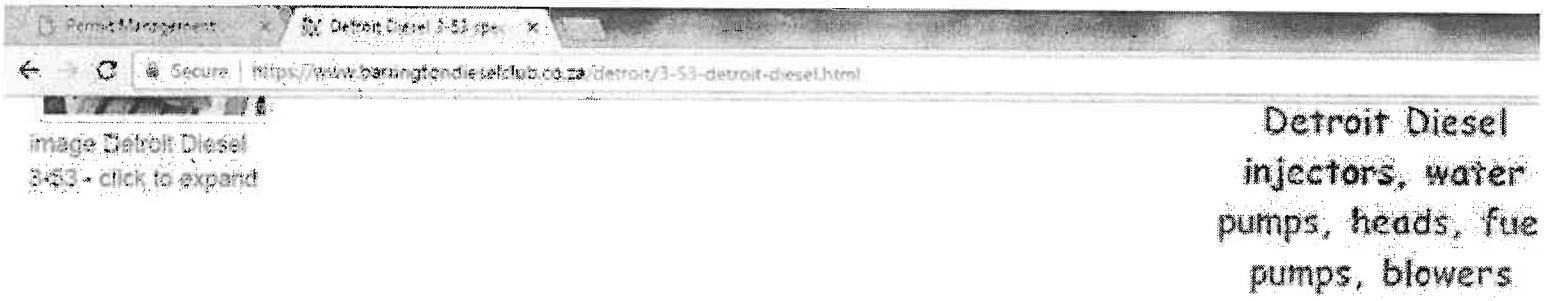
E (hourly) = Emission Factor (lb/hp-hr) * Horse Power (hp)
E (annual) = Emission Factor (lb/hp-hr) * Horse Power (hp) * Maximum Hours of Operation * 1 ton per 2000 lb

CAS NO.		Emission Factor (lb/MMBtu)	Rating	lb/hour	TPY
71-43-2	Benzene	0.000933	E	0.00093	0.001676
108-88-3	Toluene	0.000409	E	0.00041	0.000735
	Xylenes	0.000285	E	0.00028	0.000512
	1,3-Butadiene	0.0000391	E	3.9E-05	7.03E-05
50-00-0	Formaldehyde	0.00118	E	0.00118	0.00212
	Acetaldehyde	0.000767	E	0.00077	0.001378
	Acrolein	0.0000925	E	9.2E-05	0.000166
91-20-3	Naphthalene	0.0000848	E	8.5E-05	0.000152
	Burning diesel fuel:		***Total HAPs***	**0.00378** lb/hour	**0.006811** TPY

Donna Toler

From: Jason Swann [jason.swann@boothenergy.com]
Sent: Thursday, February 23, 2017 8:14 AM
To: Donna Toler
Subject: RE: Rock Crusher and Coal Screening Plants

Here is the specs on the COAL crusher engine. It is the 3-53 series Detroit Engine I have highlighted... Please disregard what Rick had written before and lets go with this information here... I also answered it in email form (written in red) down below this screenshot but had one question about what you were asking me on the year manufactured, was that the engine or the crusher you wanted the year on?? Be sure to scroll down and see the body of the email.... Thanks!



Detroit Diesel 3-53 key specs

Arrangement
3-53 - 3 Cyl In-Line, natural aspiration
3-53T - 3 Cyl In-Line, turbocharged

Displacement
3-53N and 3-53T - 2.6 liter, 159 CID
Bore - 3.875 in, 98.425 mm
Stroke - 4.50 in, 114.30 mm

Compression ratio:
3-53 21:1
3-53T 18.7:1

Power
3-53
101 hp, 75 kW @ 2800 rpm

3-53T
131 hp, 98 kW @ 2500 rpm

Torque
3-53
205 lb.ft, 278 Nm @ 1560 rpm

3-53T
312 lb.ft, 423 Nm @ 1600 rpm

Dimensions approx:
3-53N
length 838 mm, 33 in
width 686 mm, 27 in
height 889 mm, 35 in

3-53T
length 838 mm, 33 in
width 737 mm, 29 in
height 1016 mm, 40 in

Weight approx:
3-53N 438 kg, 964 lb
3-53T 454 kg, 999 lb

Detroit Diesel 3-53 essential bolt tightening torques

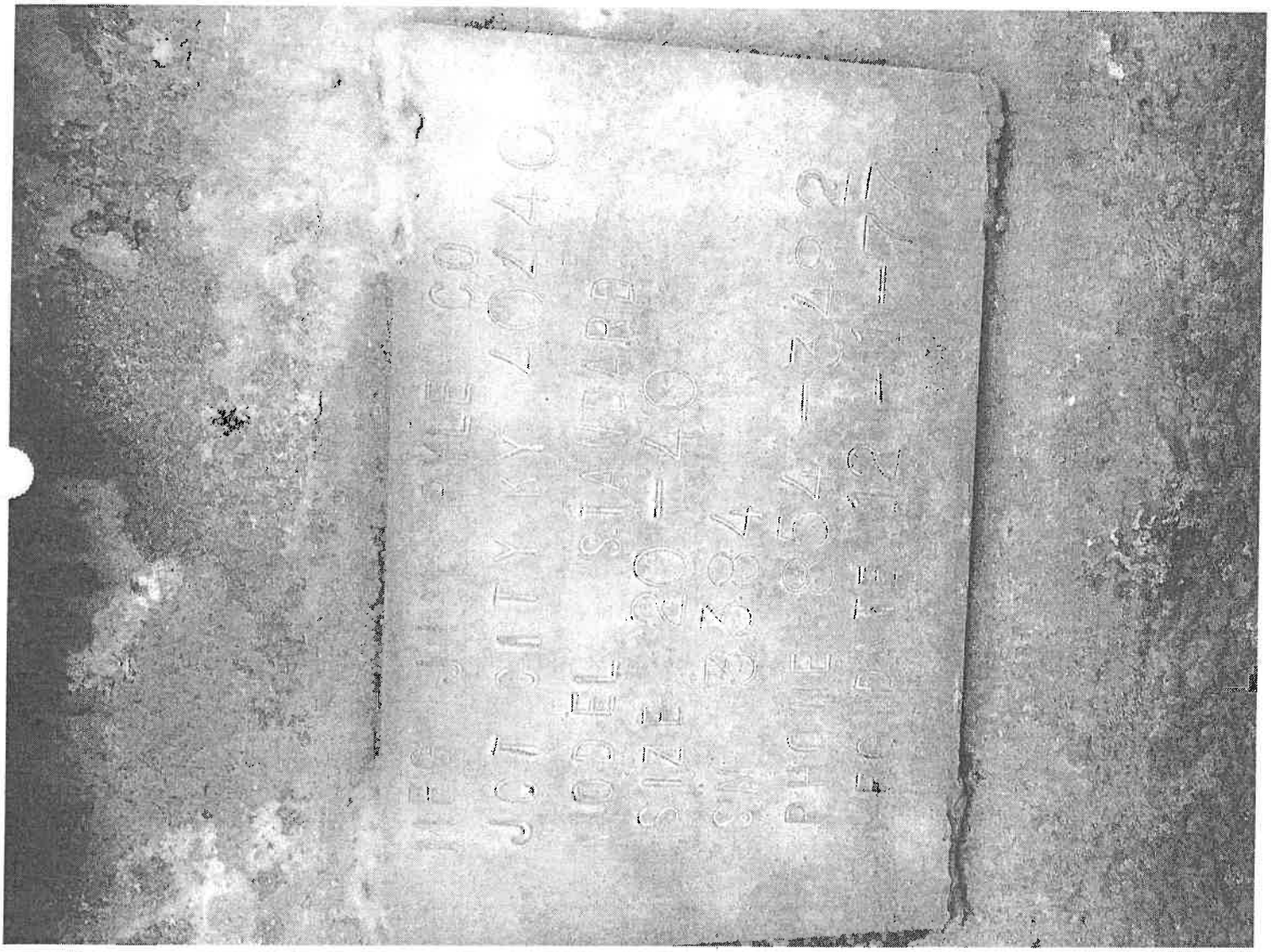
Main Bearing Bolts (9/16 NC)
step 1 = 60 lb.ft, 80 Nm
step 2 = 130 lb.ft, 177 Nm

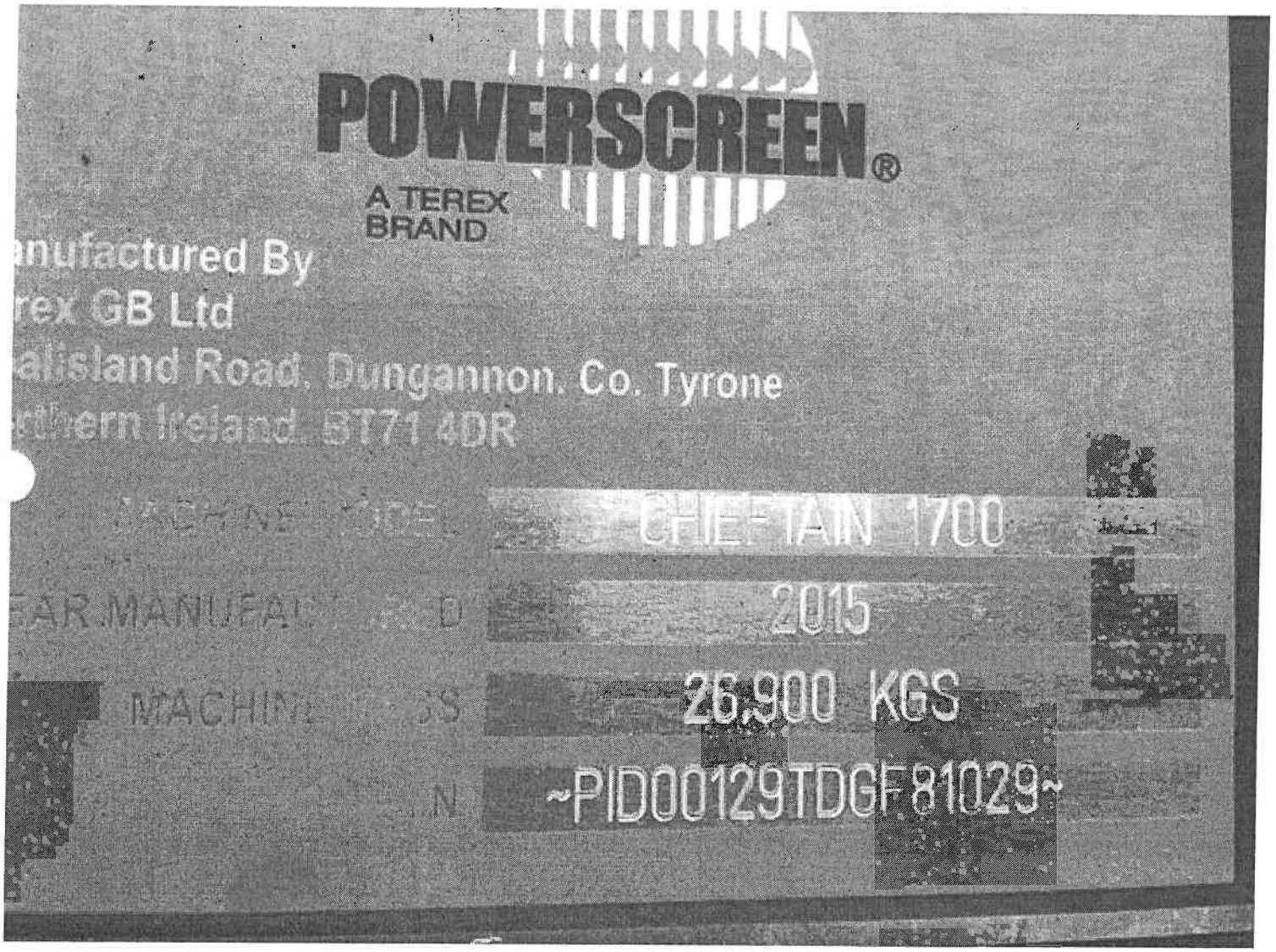
Connecting Rod Bolts
earlier type had 5/16 in bolts
24 to 28, lb.ft, 33 to 38 Nm

later type has 3/8 in bolts
40 to 45, lb.ft, 54 to 61 Nm

Cylinder head Bolts (5/8 NC
step 1 = 60 lb.ft, 80 Nm
step 2 = 110 lb.ft, 150 Nm
step 3 = 180 lb.ft, 240 Nm

Diesel 3.53 plate from machine

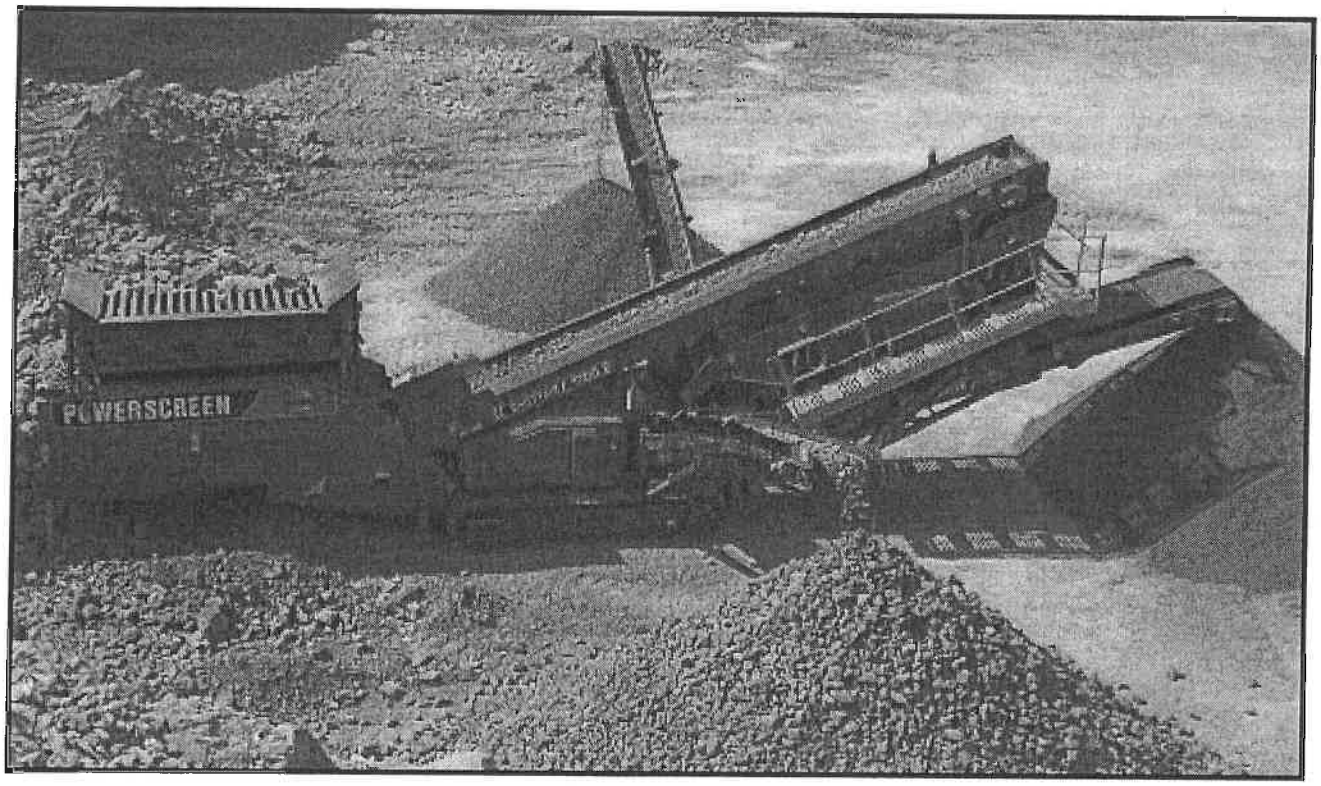



POWERSCREEN®
A TEREX BRAND
anufactured By
rex GB Ltd
alisland Road, Dungannon, Co. Tyrone
rthern Ireland, BT71 4DR
CHIEFTAIN 1700
2015
26,900 KGS
~PID0129TDGF81029~

Powerscreen® Chieftain 1700

2 Deck Incline Screen

Specification - Rev 3. 06/06/2011



POWERSCREEN®
A TEREX BRAND

Powerscreen® Chieftain 1700

Specification - Rev 3. 06/06/2011

Specification

		14ft Hopper (with grid) wheel	14ft Hopper (with grid) track
Total weight		24,700kg (54,454lbs)	26,900kg (59,304lbs)
Transport	**Length**	16.81m (55' 2")	16.53m (54' 3")
	Width	3.0m (9' 10")	3.0m (9' 10")
	Height	3.6m (11' 10")	3.4m (11' 3")
Working	**Length**	17.22m (56' 6")	17.22m (56' 6")
	Width	17.32m (56' 10")	17.32m (56' 10")
	Height	6.21m (20' 4")	5.82m (19' 1")
Screenunit		4.8m x 1.5m (16' x 5')	4.8m x 1.5m (16' x 5')
Powerunit		Diesel / Hydraulic	Diesel / Hydraulic
Plant Colour		RAL 5021	RAL 5021

Features & Benefits

- High capacity up to 500 tph (depending on feed size, mesh size & material type)
- Maximum feed size 150mm
- Engine protection shutdown system
- Powerunit featuring a transverse engine arrangement to aid access & serviceability
- Heavy duty single shaft incline screenbox with adjustable stroke, angle & speed
- Hydraulic screen tensioning
- Screen mesh access system for quicker mesh changes
- Maximum mobility with heavy duty, low ground pressure crawler tracks
- Removable heavy duty pendant remote control system
- Quick set up time
- High performance hydraulic system - cast iron pumps & motors complete with hydraulic cooler
- Low profile double deck vibrating grid option with radio remote control tipping grid rams, angle adjustable & fully riveted construction
- Hydraulically folding conveyors for transport
- Fines conveyor drop down facility to aid bottom deck mesh access

Applications

Aggregate

- Sand & gravel
- Blasted rock
- River rock

Recycling

- Top soil
- C&D waste
- Composted materials
- Wood by-products
- Overburden
- Foundry waste

Mining

- Processed ores
- Processed minerals

Abbreviations: **T=Track, W=Wheel, Std= Standard, Hyd= Hydraulic, W/O= Without, C/W= Complete with EXT= Extended, DDVG= Double deck vibrating grid, Inc= Including, Aux= Auxillary, Conv= Conveyor**

All specifications subject to change without prior notice

POWERSCREEN® A TEREX BRAND

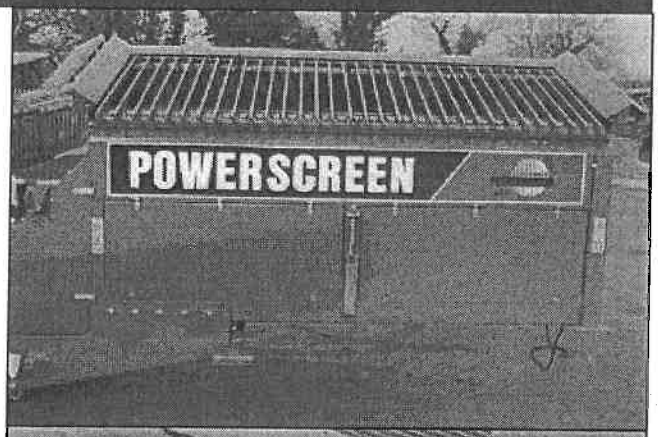
Powerscreen® Chieftain 1700

Specification - Rev 3. 06/06/2011

Hopper & Grid

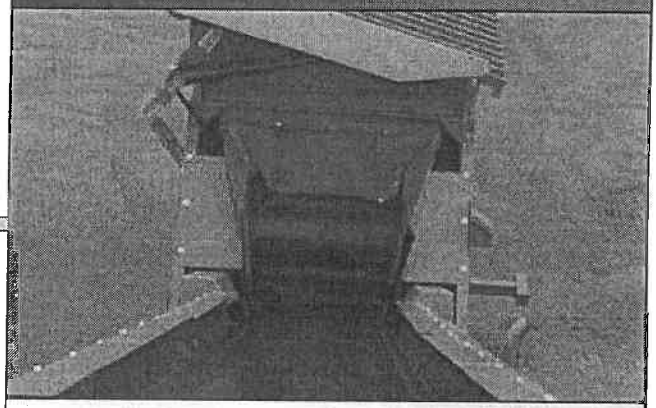
Target area: 4.85m (15' 10") long x 1.85m (6') wide
Grid aperture: 102mm (4")

Hopper capacity: 7.5m^3 (9.8 cu. yd.)
Adjustable angle tipping grid with integral loading and wing plates
Feed in height: 3.65m (11' 11") (side)
Feed in height: 3.33m (10' 11") (rear)



Feed Conveyor

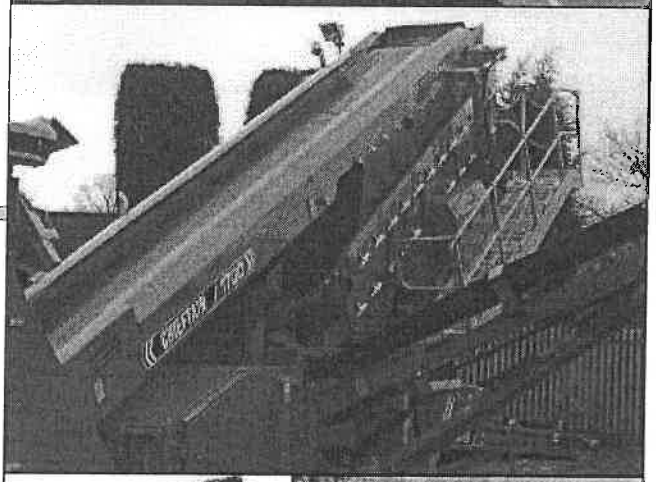
1050mm (42") wide feed conveyor with direct drive system & hydraulic variable speed control
4.09m (13' 5") drum centres
320mm (13") drum diameter (drive)
350mm (14") drum diameter (tail)



Main Conveyor

1050mm (42") 3 ply plain belt
10.17m (33' 4") drum centres
286mm (11") drum diameter (drive)
270mm (8") drum diameter (tail)

Hydraulically adjustable conveyor, fully skirted & sealed
Variable speed control
Angle adjustment: 23° - 27°



Screenbox

4.8m x 1.5m (16' x 5') 2 deck incline screen
Highly aggressive screen drive
Grease filled 2 bearing screenbox

4.8m x 1.5m (16' x 5') top deck
4.3m x 1.5m (14' x 5') bottom deck

4 of media sections (side tension) top deck
2 of media sections (end tension) bottom deck

Hydraulic screen angle adjustment 20° - 32°
Hydraulic screen tensioning on bottom deck
Galvanised walkways on both sides of screen
Quick release wedge screen tensioning system for side tensioned section

All specifications subject to change without prior notice

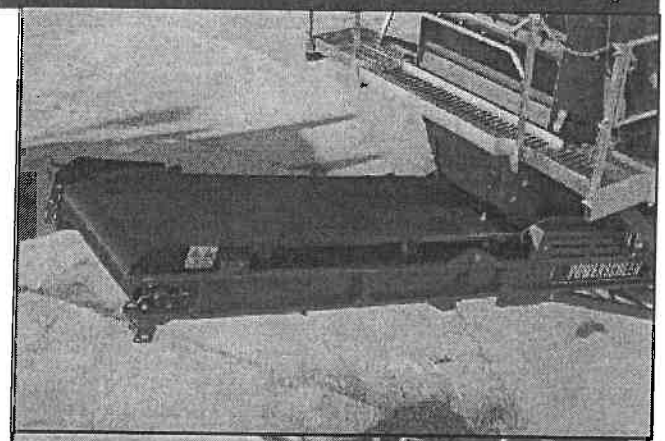
Finesize - Tail Conveyor

1200mm (48") wide 3 ply plain belt
6.87m (22' 6") drum centres
286mm (11") drum diameter (drive)
270mm (10") drum diameter (tail)

4.23m (13' 10") stockpile height (to drum centre) T
113m^3 (148 cu. yd.) stockpile volume

4.59m (15' 1") stockpile height (to drum centre) W
144m^3 (188 cu. yd.) stockpile volume

Variable speed
Hydraulically folding
Chevron belt as option
Angle adjustment: 0° - 25°



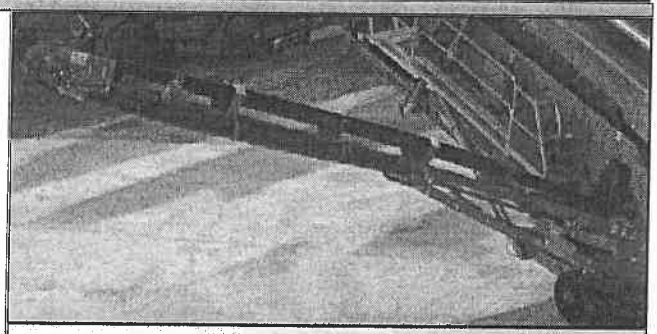
Midsize & Oversize - Side Conveyors

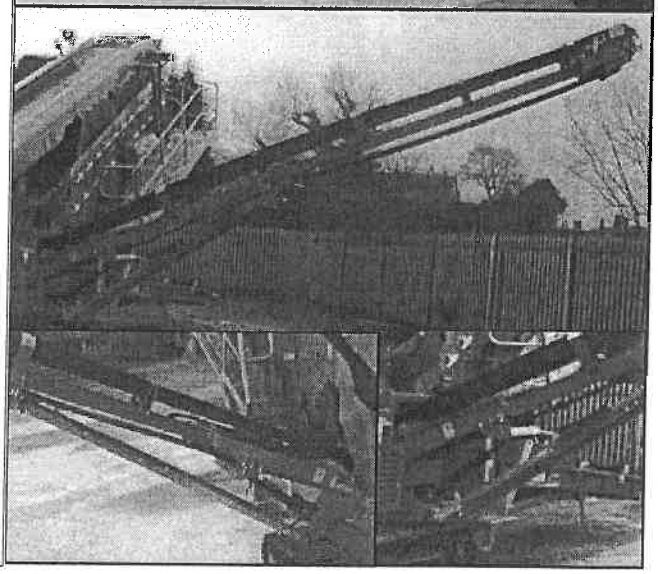
650mm (26") wide 3 ply chevron belt
9.67m (31' 8") drum centres
286mm (11") drum diameter (drive)
270mm (10") drum diameter (tail)

4.72m (15' 6") stockpile height (to drum centre) T
157m^3 (205 cu. yd.) stockpile volume

5.08m (16' 8") stockpile height (to drum centre) W
195m^3 (255 cu. yd.) stockpile volume

Variable speed control
Hydraulically folding
Fixed angle: 25°





Powerunit & Hydraulics

Engine:
CAT 4.4 (TIER 3) 4 cylinder diesel

Performance:
83 kW (111.3hp) @ 2200rpm

Tank Capacities:

Fuel:	336 L (88 US Gal)
Hydraulic Oil:	576 L (152 US Gal)

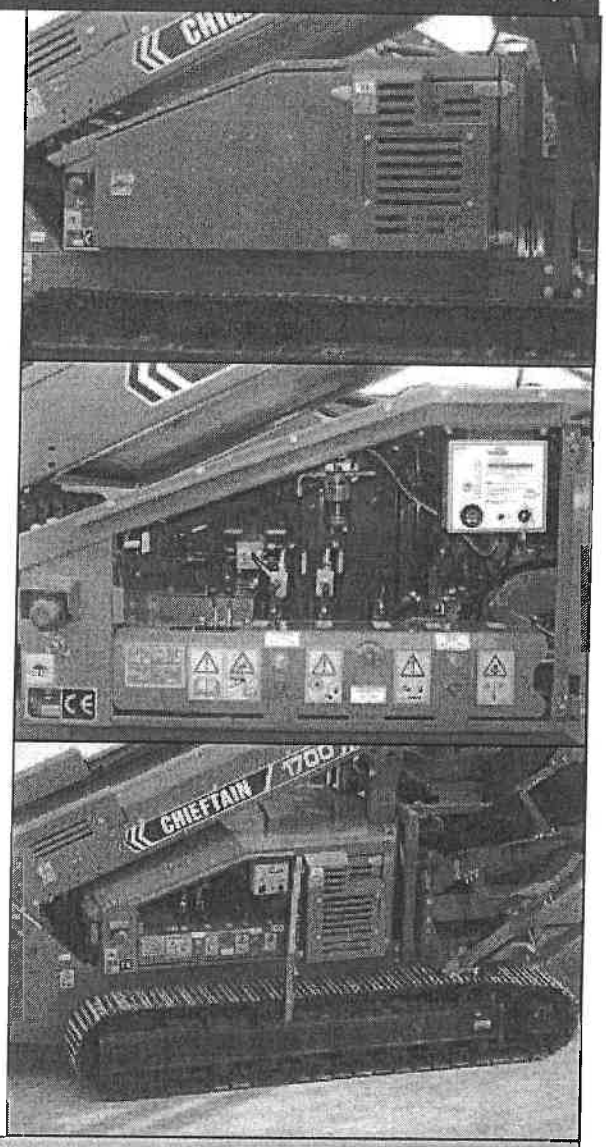
Pumps:

Flywheel pump:	Cast iron tandem pump 33cc/rev
PTO pump A:	Cast iron tandem pump 23cc/rev
PTO pump B:	Cast iron tandem pump 14cc/rev

Motors:

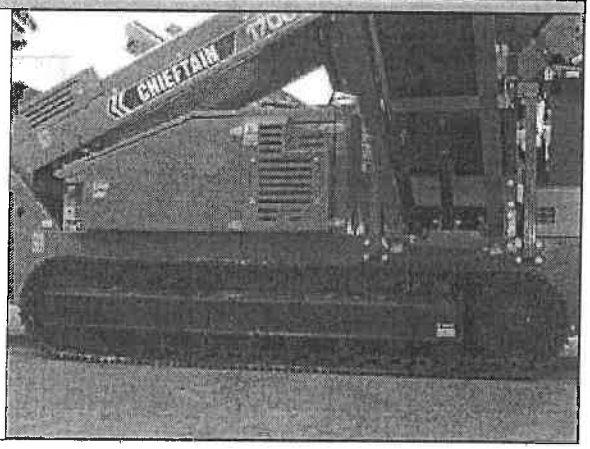
Belt feeder:	160cc/rev
Main conveyor:	Cast iron 630cc/rev
Tail conveyor:	Cast iron 500cc/rev
Side conveyors:	Cast iron 400cc/rev
Screen motor:	Cast iron 59cc/rev

Optional Diesel engine:
Deutz TCD2013 L04 2V
125 kW (168hp) @ 2200rpm



Crawler Track Data

Track width:	400mm
Output torque:	33,804 Nm
Gradability degrees:	24.8°
Gearbox ratio:	1:123
Hydraulic motor:	85cc/rev
Approximate speed:	0.7kph (0.43mph)
Total flow per track:	72.6 Lpm



Powerscreen® Chieftain 1700 Options

Specification - Rev 3. 06/06/2011

Vibrating Grid

Target area: 3.05m (10') long x 2.14m (7') wide

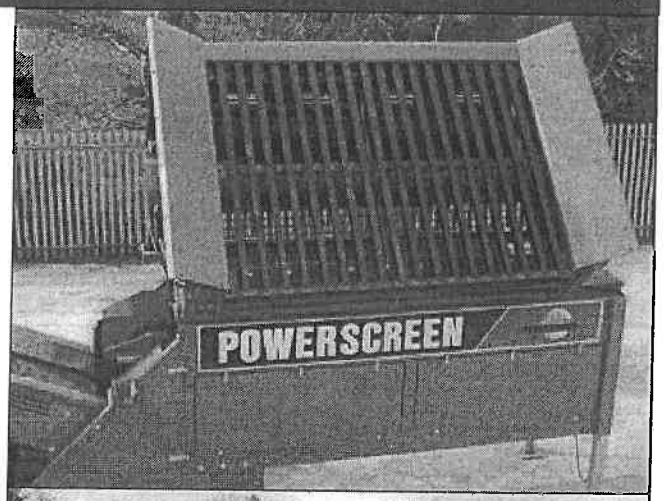
Double deck option:
Bottom deck screen size:
2 of 1.9m (6' 3") x 1.5m (4' 11")

Working angle: 10° - 20° (hydraulic adjustable)
Tip angle: 45° max
Motor: 59cc/rev
Circuit: Coupled to main conveyor circuit

Feed in height: 3.73m (12' 2") (side)
Feed in height: 3.93m (12' 10") (rear)

Transport height: 3.98m (13') Track
Transport height: 3.98m (13') Wheel

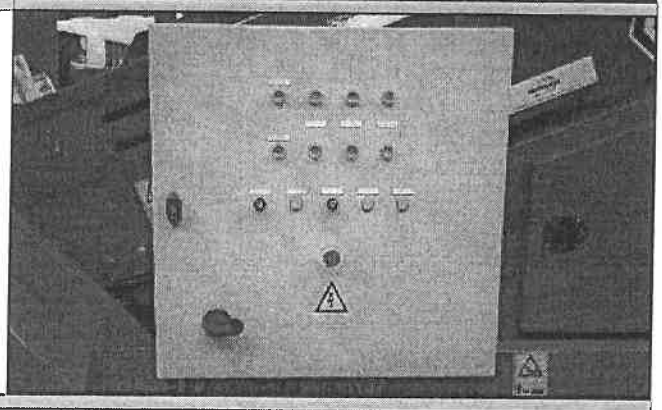
Total weight: 4,000kg (8,818lbs)



Dual Power

Dual power system:
2 of electric motors; 37 kW (50hp) & 30 kW (40hp)
Diesel engine
Integrated control system

This controls either diesel-hydraulic or electric-hydraulic functions



Other Options

Different coloured machine
Optional engine
Auto lubrication system
Quick release wedge tensioning for middle deck
Electric wheel version
Anti roll-back
Radio controlled tracking
Roll-in bogie
Hydraulic jacking legs
Auxiliary conveyor attached for transport
Washing version

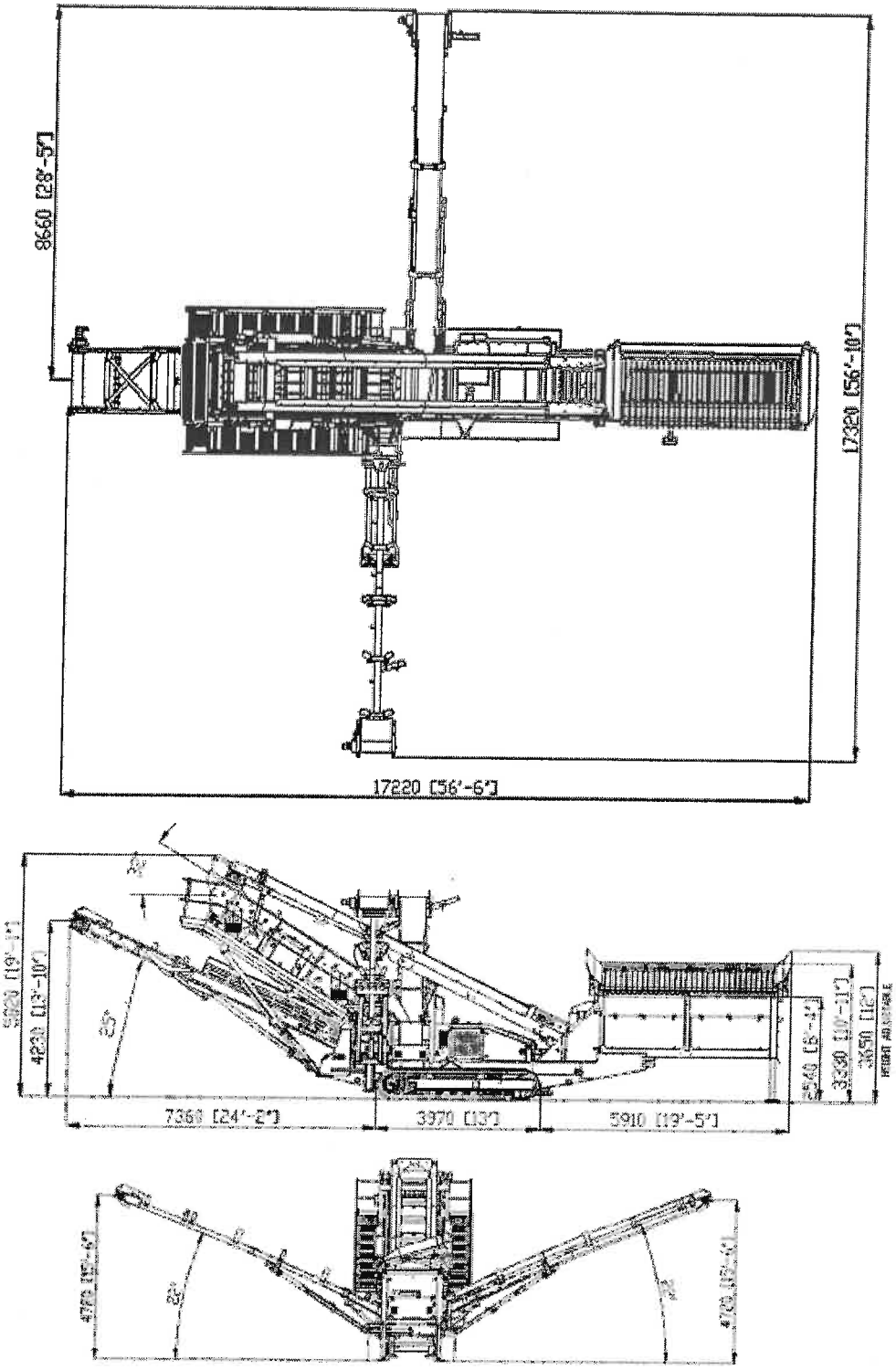


Figure 1: Chieftain 1700 2 Deck Track Working Position

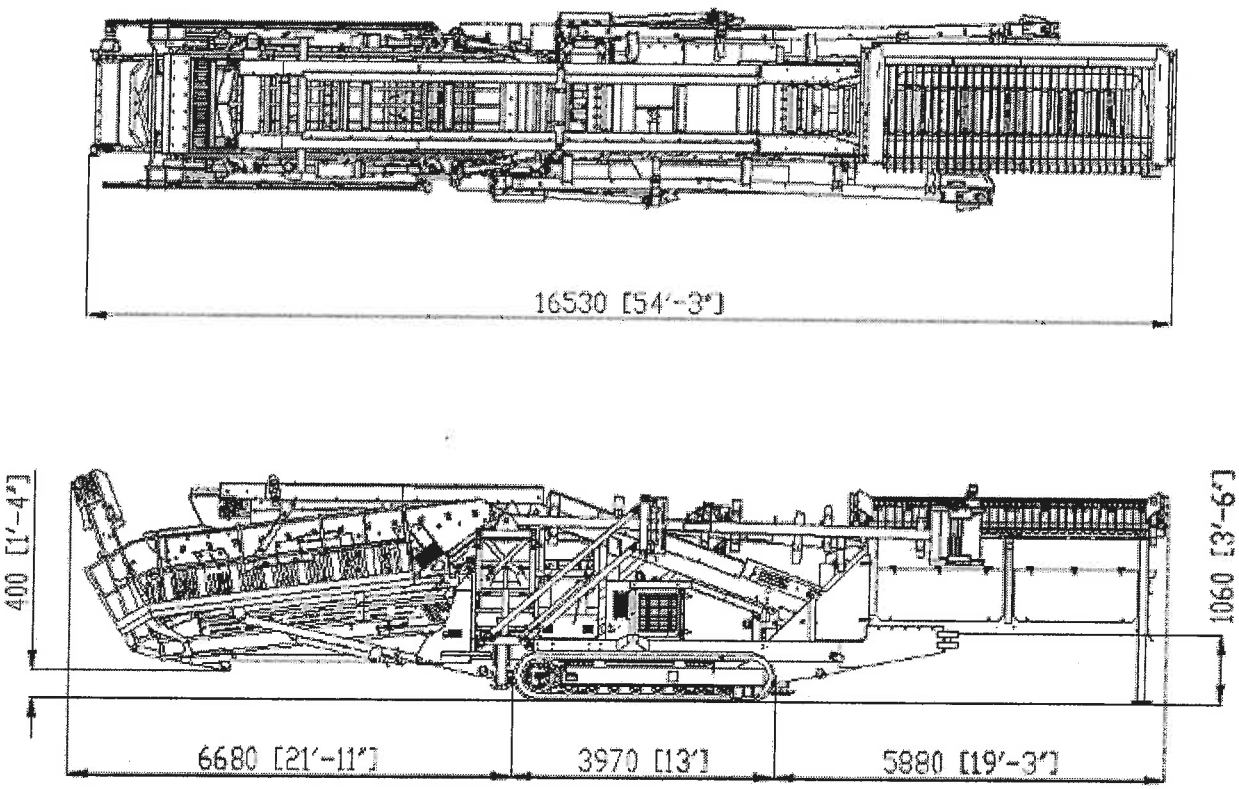


Figure 2: Chieftain 1700 2 Deck Track Transport Position

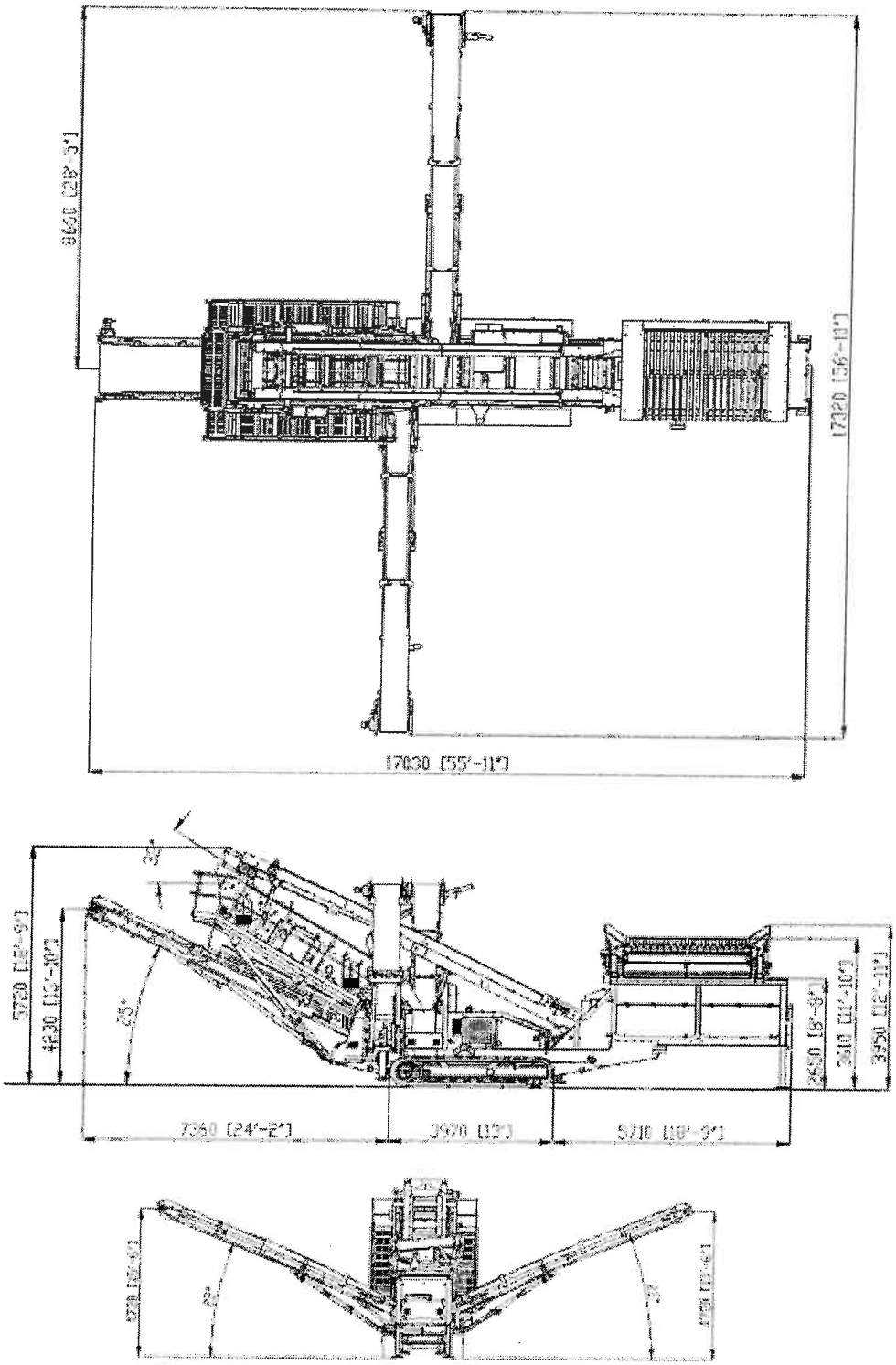
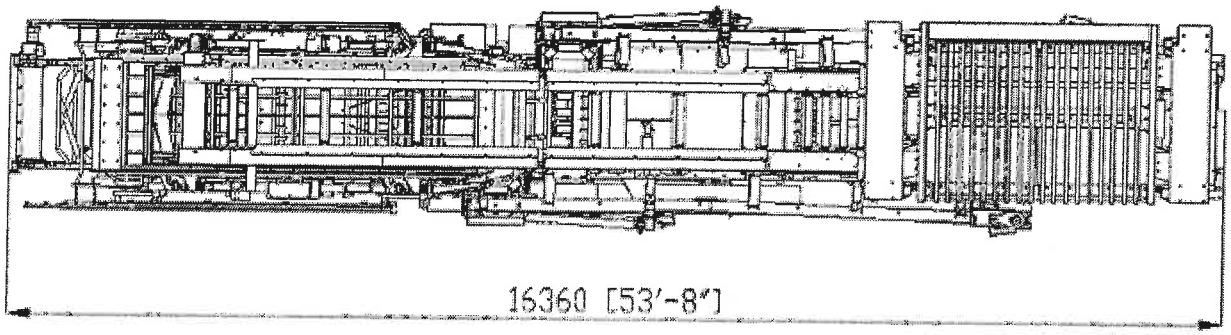
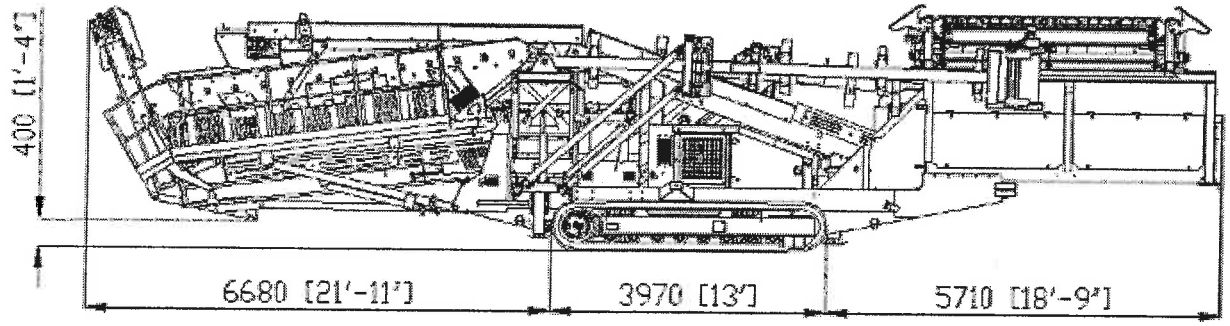


Figure 3: Chieftain 1700 2 Deck Track Double Deck Vibrating Grid Working Position





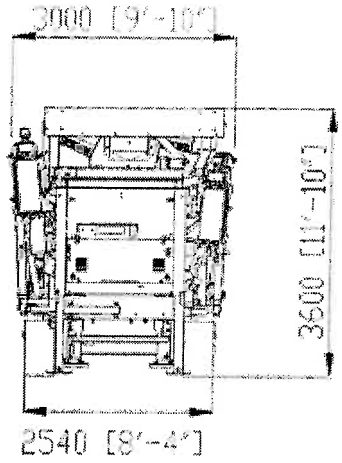


Figure 4: Chieftain 1700 2 Deck Track
Double Deck Vibrating Grid
Transport Position

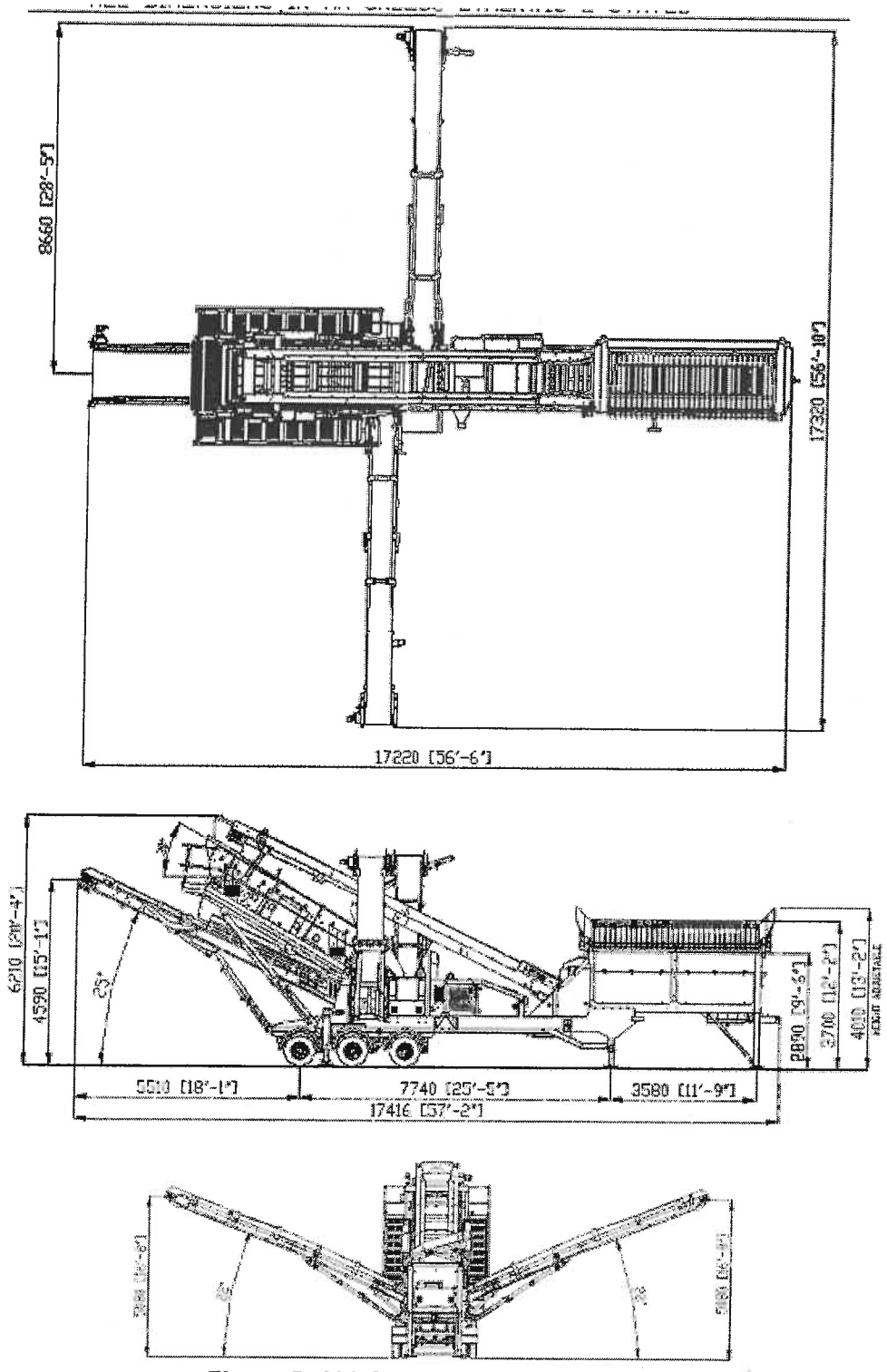
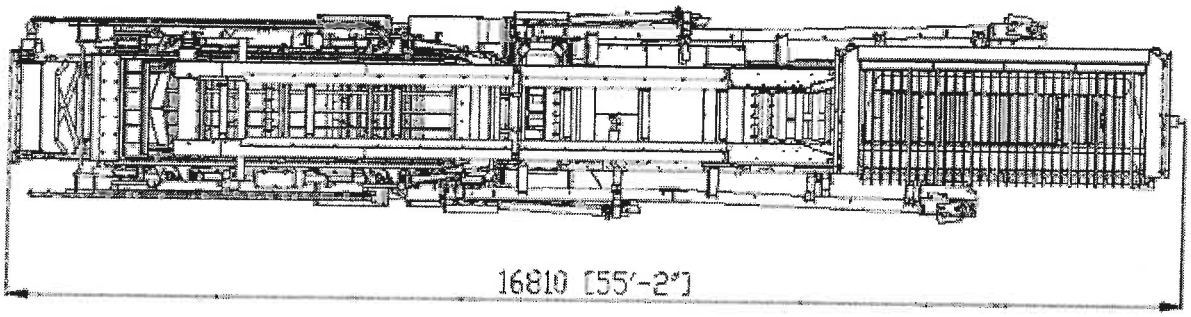
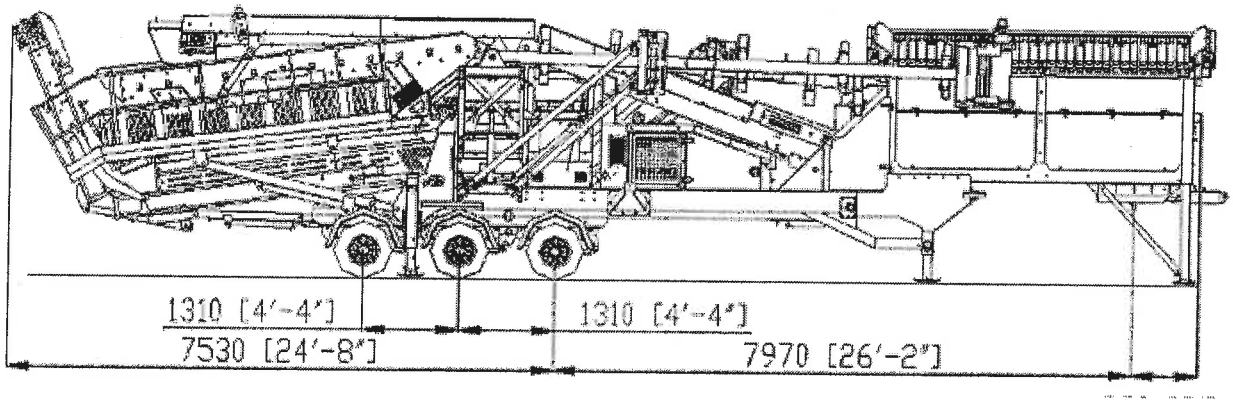


Figure 5: Chieftain 1700 2 Deck Wheel Working Position





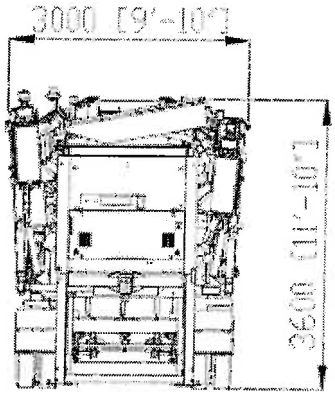


Figure 6: Chieftain 1700 2 Deck Wheel Transport Position

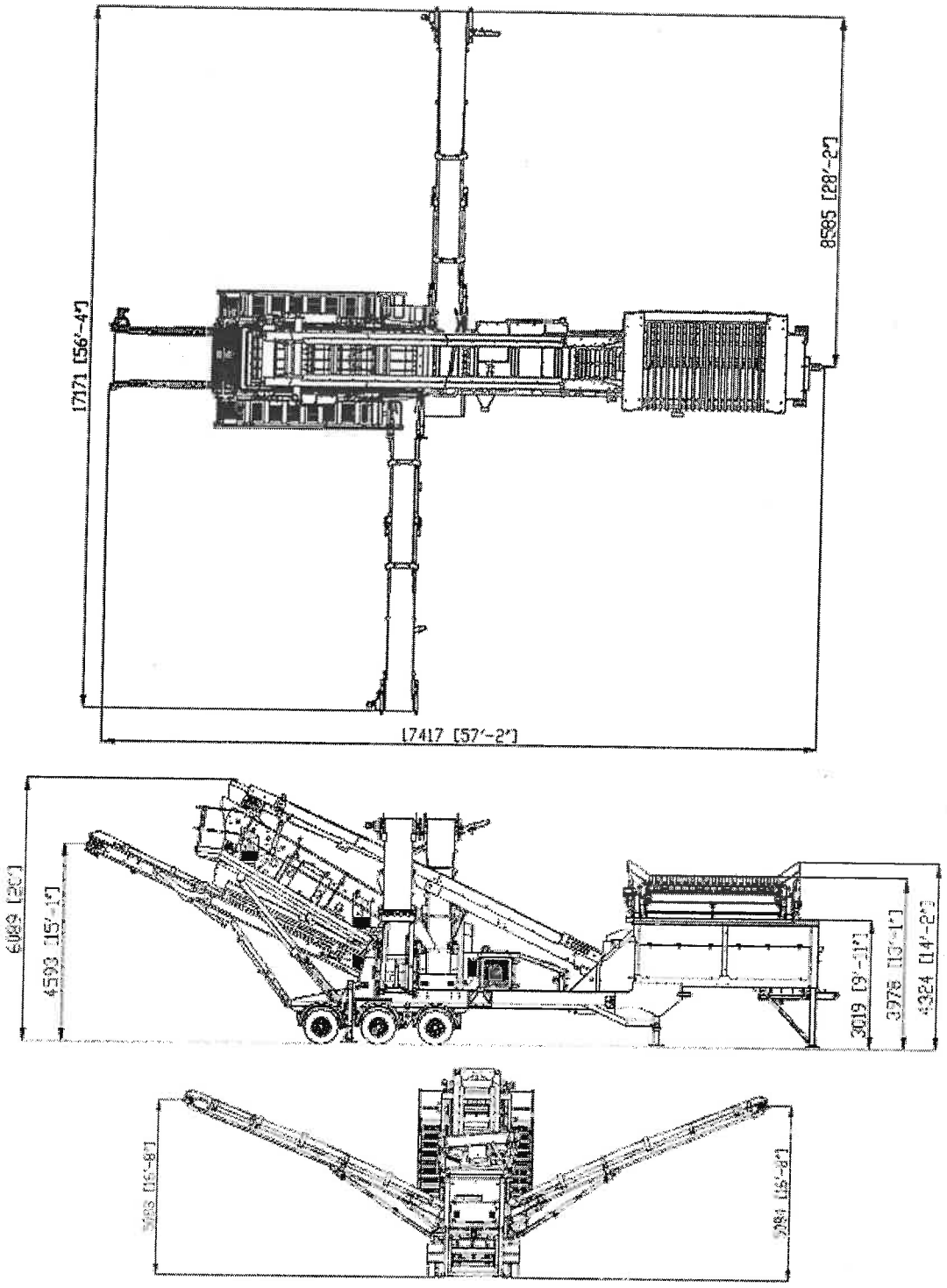


Figure 7: Chieftain 1700 2 Deck Wheel Double Deck Vibrating Grid Working Position

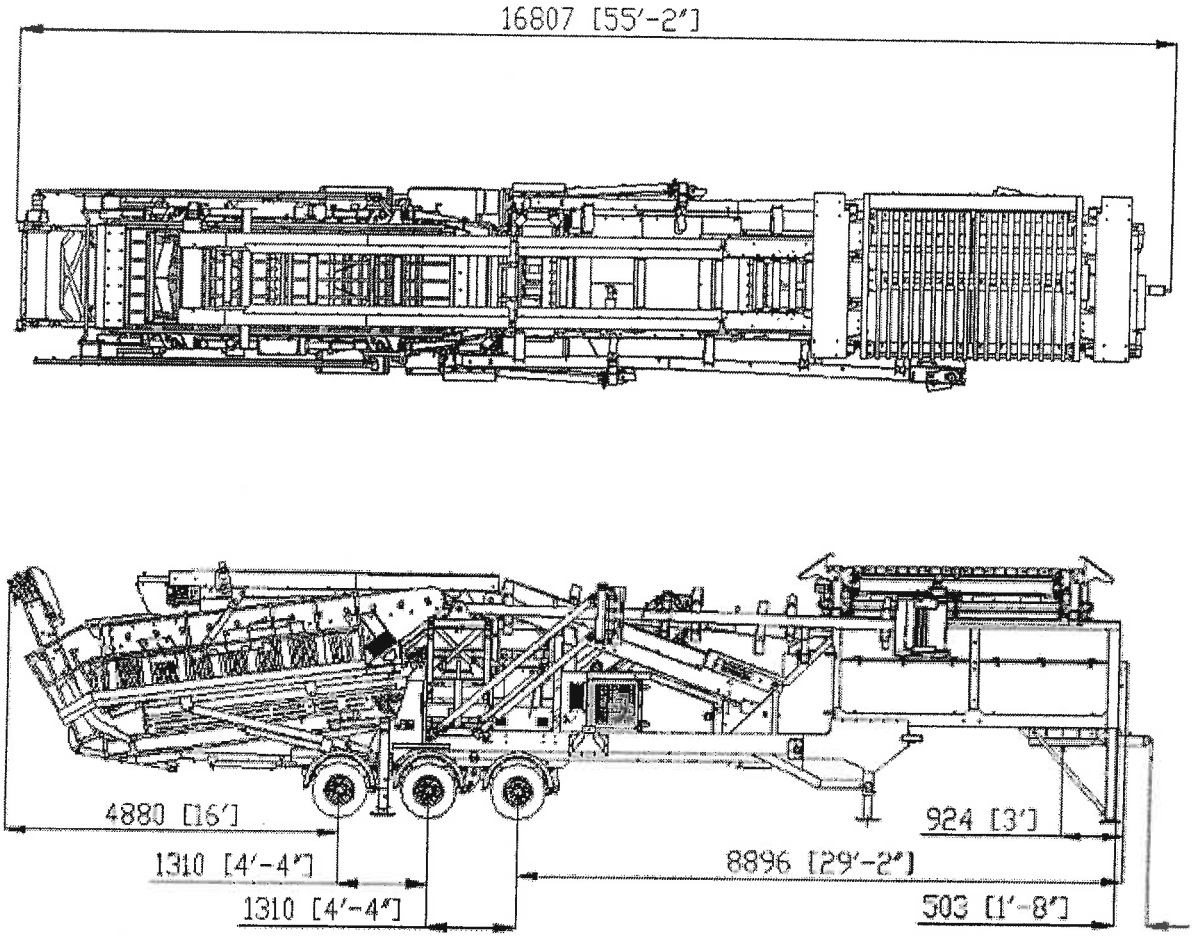


Figure 8: Chieftain 1700 2 Deck Wheel Double Deck Vibrating Grid Transport Position

Powerscreen equipment complies with CE requirements.

Please consult Powerscreen if you have any other specific requirements in respect of guarding, noise or vibration levels, dust emissions, or any other factors relevant to health and safety measures or environmental protection needs. On receipt of specific requests, we will endeavour to ascertain the need for additional equipment and, if appropriate, quote extra to contract prices.

All reasonable steps have been taken to ensure the accuracy of this publication, however due to a policy of continual product development we reserve the right to change specifications without notice.

It is the importers' responsibility to check that all equipment supplied complies with local legislation regulatory requirements.

Plant performance figures given in this brochure are for illustration purposes only and will vary depending upon various factors, including feed material gradings and characteristics. Information relating to capacity or performance contained within this publication is not intended to be, nor will be, legally binding.

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