

Revised 6/30/2015



Air Quality Division

New Source Review Permit Application Form Cover Sheet



Is this supplemental information to an application currently under review?

Yes \_\_\_\_\_ No X

Previous Application #: \_\_\_\_\_

Date of Application: 2/23/23

COMPANY INFORMATION:

Company Name: Arbor Works Tree Service

Address: 1280 B Huff Lane

City: Jackson State: Wyoming Zip Code: 83001

Country: USA Phone Number: 307-413-8375

FACILITY INFORMATION:

Facility Name: \_\_\_\_\_

New Facility or Existing Facility: \_\_\_\_\_

Facility Description: \_\_\_\_\_

Facility Class: \_\_\_\_\_ Operating Status: \_\_\_\_\_

Facility Type: \_\_\_\_\_

For Oil & Gas Production Sites ONLY:

First Date of Production (FDOP)/Date of Modification: \_\_\_\_\_

Single well or multiple well facility? \_\_\_\_\_

Does production at this facility contain H2S?\* \_\_\_\_\_

*\*If yes, contact the Division.*

API Number(s): \_\_\_\_\_

NAICS Code: \_\_\_\_\_

FACILITY LOCATION:

**\*Enter the facility location in either the latitude/longitude area or section/township/range area. Both are not required.**

Physical Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

State: WY County: \_\_\_\_\_

**OR**

Latitude: 42 N Longitude: 117 W County: Teton

Quarter: \_\_\_\_\_ Quarter: \_\_\_\_\_

Section: tract 6 Township: wilson Range: \_\_\_\_\_

*For longitude and latitude, use NAD 83/WGS84 datum and 5 digits after the decimal (i.e. 41.12345, -107.56789)*

CONTACT INFORMATION:

**\*Note that an Environmental AND NSR Permitting Contact is required for your application to be deemed complete by the agency.**

Title: Mr. First Name: Corey

Last Name: Felton

Company Name: Arbor Works Tree Service

Job Title: Co-Owner

Address: PO Box 1836

City: Wilson State: Wyoming

Zip Code: 83014

Primary Phone No.: 307-413-8375 E-mail: arborworkstreeservice@gmail.com

Mobile Phone No.: Same Fax No.: \_\_\_\_\_

Contact Type: Billing contact Start Date: May-12

\*Name of the contact to whom the permit will be issued: Corey Felton

Additional Contact Type (if needed):

Title: First Name:

Last Name:

Company Name:

Job Title:

Address:

City: State:

Zip Code:

Primary Phone No.:

E-mail:

Mobile Phone No.:

Fax No.:

Contact Type:

Start Date:

**FACILITY APPLICATION INFORMATION:**

**General Info:**

Has the facility changed location or is it a new/ greenfield facility?  NO

Has a Land Use Planning document been included in this application?  Yes

Is the facility located in a sage grouse core area? \*  No

If the facility is in a sage grouse core area, what is the WER number? no

*\*For questions about sage grouse core area, contact WYGame & Fish Department.*

**Federal Rules Applicability - Facility Level:**

Prevention of Significant Deterioration (PSD):  No

Non-Attainment New Source Review:  No

**Modeling Section:**

Has the Air Quality Division been contacted to determine if modeling is required?  Yes

Is a modeling analysis part of this application?  No

Is the proposed project subject to Prevention of Significant Deterioration (PSD) requirements?  NO

Has the Air Quality Division been notified to schedule a pre-application meeting?  No

Has a modeling protocol been submitted to and approved by the Air Quality Division?  No

Has the Air Quality Division received a Q/D analysis to submit to the respective FLMs to determine the need for an AQRV analysis?  No

**Required Attachments:**

Facility Map  Attached

Process Flow Diagram  Attached

Modeling Analysis (if applicable)  N/A

Land Use Planning Document  Attached

Detailed Project Description  Attached

Emissions Calculations

I, Corey Felton Co-owner  
Responsible Official (Printed Name) Title

an Official Representative of the Company, state that I have knowledge of the facts herein set forth and that the same are true and correct to the best of my knowledge and belief. I further certify that the operational information provided and emission rates listed on this application reflect the anticipated emissions due to the operation of this facility. The facility will operate in compliance with all applicable Wyoming Air Quality Standards and Regulations.

Signature: [Signature]  
(ink)

Date: 2/23/23

## Detailed Project Description

Arbor Works Tree Service currently holds a lease on tracked 6, TUP 03344, Located in Wilson, WY. Currently, we use chippers and horizontal grinders to reduce our wood waste and then store it at this tract. In 2022, Arbor Works trucked 10,700 yards of wood chips from our TUP State Land to Mountain West Products located in Rexburg, ID. That equates to 107 loads and 10,700 gallons of diesel. An Air Curtain Burner would reduce those numbers by 95% including CO2 emissions and fossil fuels. Our proposal is to purchase and operate an Air Burner S-223 to reduce our wood waste by 95% by burning down our logs, wood chips, stumps and firewood byproducts in a contained and controlled environment on tracked 6.

Biochar is a rapidly growing commodity. It can be used for soil amendments; biochar is considered to be one of the best organic fertilizers due to its stability and ability to retain nutrients that reduce leaching into our waterways. Replacing existing applications with Biochar and reducing fertilizers used on golf courses, parks, common areas and backyards would improve toxicity levels. In a recent study, Biochar can be used as a dressing to trap and retain leaking greenhouse gasses within deserted oil and gas wells. Over 3 million wells lay abandoned nationwide, biochar can be used to carbon sequestration and filter gases keeping millions to billions of tons of carbon dioxide out of the atmosphere.

Air Curtain Burners have been tested by the EPA, and are currently used by the U.S. Department of Energy, U.S. Forest Service, the Armed Forces and many other organizations. If this proposal gets approved, Arbor Works intends on selling our largest wood chipper and truck to pull it, this combination consumes over 100 gallons of diesel every day. They would be replaced with a self-loading grapple truck; all material would be hauled unchipped to tracked 6 and burned in the Air Burner. Additional wood chips from other tree crews would be added to the burner and additional chippers would be sold if more large woody material is needed to maintain an efficient burn.



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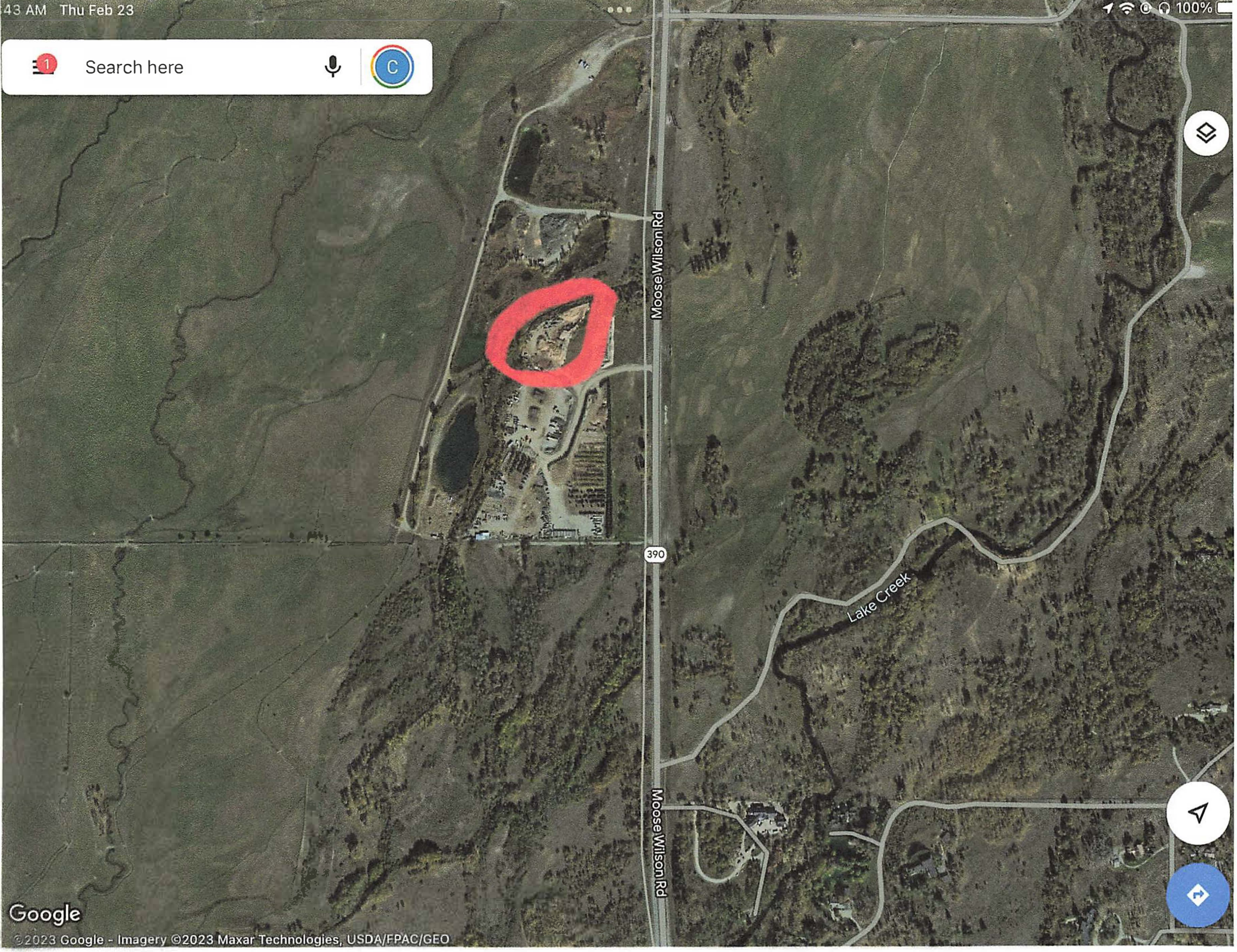
Jackson Hole Community Pathway System

Navigation controls including a compass, a blue location pin button, and a white location pin button.



1 Search here







EQUIPMENT		OPERATION	
Model	Diesel Engine Tier 4	Throughput t/hr	hr/day
S 223	HATZ 4H50	9	6

REFERENCE FACTORS FROM SJV CALIFORNIA (Max. Allowed EF)				
PM10 lbs./t	Nox lbs./t	Sox lbs./t	CO lbs./t	VOC lbs./t
1.30	1.00	0.10	2.60	0.90

PROJECTED EMISSIONS Emissions in lbs. per hr of Wood Waste				
PM10 lbs./hr	NOx lbs./hr	SOx lbs./hr	CO lbs./hr	VOC lbs./hr
11.70	9.00	0.90	23.40	8.10

4H50	Engine Emissions g / kW-hr				HP
	NOx	PM10	CO	VOC	
4H50	4.47	0.03	5.00	0.24	74.5

Engine Emissions g / hp-hr			
NOx	PM10	CO	VOC
3.3296	0.0224	3.7285	0.1752

The Emissions Factors above are the San Joaquin Valley, California, established thresholds for the FireBox Series 300 used there as an accepted baseline. They are easily achievable by all ACO designs of Air Burners, Inc. and the actual emissions are considerably lower.

PROJECTED EMISSIONS Emissions Released in lbs. per Day				
PM10 lbs./d	NOx lbs./d	SOx lbs./d	CO lbs./d	VOC lbs./d
70.20	54.00	5.40	140.40	48.60

4H50	Engine Emissions lbs. per day				HP
	NOx	PM10	CO	VOC	
4H50	3.28	0.02	3.67	0.1727	74.5

Engine Emissions g per day			
NOx	PM10	CO	VOC
1,488.31	10.00	1,666.64	78.33

NOTE: Nox to VOC split per BAAQMD NOx is 95% of the sum of NMHC + Nox

PROJECTED EMISSIONS * Emissions Released in Tons per Year				
PM10 t/yr	NOx t/yr	SOx t/yr	CO t/yr	VOC t/yr
8.42	6.48	0.65	16.85	5.83

4H50	Engine Emissions tons per year*				HP
	NOx	PM10	CO	VOC	
4H50	0.39	0.00	0.44	0.0207	74.5

\*Year = 240 Work Days

There are 5 variables on light green background that can be changed.

NOTE: The emissions data in the chart is only applicable to the air curtain burner designs of Air Burners, Inc. Contact Factory for data on other Air Burners models, i.e. S220. Subject to Change without Notice.

Overall Total Projected Emissions per Day lbs. per day						
	NOx	PM10	CO	VOC	SOx	HP
4H50	57.281	70.222	144.074	48.773	5.400	74.5

Overall Total Projected Emissions per Year* tons per year						
	NOx	PM10	CO	VOC	SOx	HP
4H50	6.874	8.427	17.289	5.853	0.648	74.5

Annual Feedstock (tons)  
12,960