

**TITLE V APPLICATION REVIEW**

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Facility Name: Caldwell Tanks Alliance, LLC. - Broad Street Facility

City: Newnan

County: Coweta

AIRS #: 04-13-077-00009

Application #: TV- 11572

Date Application Received: July 12, 1999

Date Application Deemed

Administratively Complete: September 1, 1999

Date of Draft Permit:

Permit No: 3443-077-0009-V-01-0

<b>Program</b>	<b>Review Engineers</b>	<b>Review Managers</b>
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<b>SSCP/ASU</b>	Pierre Sanon	James Eason
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**Introduction**

This narrative is being provided to assist the reader in understanding the content of the attached draft Title V operating permit. Complex issues and unusual items are explained in simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being proposed pursuant to: (1) Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control, (2) Part 70 of Chapter I of Title 40 of the Code of Federal Regulations, and (3) Title V of the Clean Air Act Amendments of 1990. The primary purpose of this permit is to consolidate and identify existing state and federal air requirements applicable to Caldwell Tanks Alliance, LLC. - Broad Street Facility and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the draft permit and is presented in the same general order as the permit. It initially describes the facility receiving the permit, then the applicable requirements and their significance, and finally the methods for determining compliance with those applicable requirements. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public participation process will be described in an addendum to this narrative.

**I. Facility Description**

**A. Facility Identification**

1. Facility Name: Caldwell Tanks Alliance, LLC. - Broad Street Facility
2. Parent/Holding Company Name: Caldwell Tanks, Inc.
3. Previous and/or Other Name(s): Previously known as Brown Steel Contractors, Inc. - Blue Division
4. Facility Location: 57 East Broad Street  
Newnan, Coweta County, Georgia
5. Attainment or Non-attainment Area Location:

The facility is located in an ozone non-attainment area.

6. Class I Area Impacts

The facility is not located within 100 km of a Class I area.

**B. Site Determination**

There are no other facilities which could possibly be contiguous or adjacent and under common control.

**C. Existing Permits**

**Table 1: List of Current Permits, as Amended**

Permit Number and/or Purpose of Issuance	Date of Issuance and Date of Amendments (if any)	Comments	
		Yes	No
3443-038-4277-0	Original issued on November 24, 1975; Amendment on July 20, 1988		/

**Table 2: Comments on Specific Permits**

Permit Number	Comments
N/A	N/A

**D. Process Description**

1. SIC Code(s) Major - 3443  
Other - None
2. Description of Product(s): Fabricated steel components for elevated water storage tanks.

3. Overall Facility Process Description

Caldwell Tanks Alliance, LLC. - Broad Street Facility manufactures steel structural components for elevated water storage/supply tanks. Main operations include steel cutting, forming, welding, shot blasting and painting. Metal cutting is performed by plasma-arc cutting machines. Arc welding equipment is used to weld the steel parts into the steel structural components. After the welding, shot blasting is used to prepare the surface of the components for painting. A paint booth is used to apply paints onto the surface of the components. Ancillary activities include a parts washer used in the maintenance room and a paint distillation unit located in the paint booth area.

Primary emissions of air pollutants are volatile organic compounds (VOC) from the use of paints, thinners and clean-up solvents. There are no VOC emission controls being used at this facility. Particulate matter (PM) emissions are generated mainly by the shot blasting, welding and painting operations. Both the paint booth and the shot blasting unit use dry filtration systems to reduce the PM emissions to insignificant levels. The high temperature metal cutting and welding processes generate emissions of NO<sub>x</sub>, CO, and PM as metal oxides rich fume. These emission sources are listed as “insignificant activities” under the Title V application based their insignificant emission levels.

4. Overall Process Flow Diagram: See application.

E. Regulatory Status

1. PSD/NSR

The facility is located in an ozone nonattainment area. Since the potential VOC and NO<sub>x</sub> emissions from this facility are less than 50 tpy, the facility is a minor source under NAA/NSR regulations. The facility is not subject to any NSPS rules.

2. Title V Major Source Status by Pollutant

**Table 3: Title V Major Source Status**

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility’s Title V status for the Pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	yes	no	no	yes
PM <sub>10</sub>	yes	no	no	yes
SO <sub>2</sub>	no	no	no	yes
VOC	yes	no	no	yes
NO <sub>x</sub>	yes	no	no	yes
CO	yes	no	no	yes
TRS	no	no	no	yes
H <sub>2</sub> S	no	no	no	yes
Individual HAP	yes	yes	no	no
Total HAPs	yes	no	no	yes



3. MACT Standards

This facility is potentially subject to a future MACT standard(s) entitled "Surface Coating of Miscellaneous Metal Parts" which is scheduled to promulgated in November 2000 by EPA.

4. Program Applicability

<b>Program Code</b>	<b>Applicable (Yes/No)</b>
Program Code 6 - PSD	No
Program Code 8 - Part 61 NESHAP	No
Program Code 9 - NSPS	No
Program Code M - Part 63 NESHAP	No
Program Code V - Title V	Yes

**Regulatory Analysis**

**II. Facility Wide Requirements**

A. Emission and Operating Caps:

The facility will have an annual VOC emission cap of 50 tpy upon the request of the company, though it is a minor source under NAA/NSR rules. This emission cap confirms the minor source status of the facility under NAA/NSR rule, as desired by the company, and at the same time introduces specific record keeping, emission monitoring, and compliance reporting requirements for VOC emissions.

B. Applicable Rules and Regulations

! Rules and Regulations Assessment:

The entire facility is subject to Condition 2.1.1 which confirms the facility's minor source status under NAA/NSR rules (40 CFR 51.165 - NAA major source avoidance). It is subject to 391-3-1-.02(2)(a)1 through Condition 2.3.1. The surface coating operations are subject to Rule (ii).

! Emission and Operating Standards - None applicable.

C. Compliance Status: See Section VII.F.

D. Operational Flexibility: See Section VII.A.

### E. Permit Conditions

None of the existing facility wide permit conditions in SIP permit No. 3443-038-4277-0 and its amendment will be incorporated into Part 2.0 because Part 4.0, 5.0, 6.0, 7.0 and/or 8.0 of the Title V permit already have conditions addressing the same issues. Condition 2.1.1 will establish a 50 tpy annual VOC emission limit for the entire facility as requested by the company. This emission cap confirms the minor source status under NAA/NSR and, at the same time, introduces specific record keeping, emission tracking, and compliance reporting requirements for monthly and annual VOC emissions. It has been determined that Rule (ii) only applies to process unit(s) engaging in the surface coating of miscellaneous metal parts at this facility. It is not a facility wide standard as claimed by the company in the Title V permit application, though most of the VOC emissions, if not all, are from the surface coating processes. The existing condition for the disposal of solid waste and wastewater has been eliminated because it has no regulatory basis under the Clean Air Act.

## III. Regulated Equipment Requirements

### A. Brief Process Description

This facility manufactures components for steel water storage tank construction. Operations include steel cutting, forming, welding, metal blasting and painting.

- 1. Cutting, Forming/Gouging & Welding** - Metal cutting is performed by plasma - arc cutting machines. Arc welding equipment is used to weld steel parts into large pre-fabricated steel structural elements of the tanks. Emissions from these operations include PM, fume and NO<sub>x</sub> and are exhausted through the wall mounted fans.
- 2. Rotoblasting** - The surface of the structural elements of the water tanks are prepared with steel shot materials. The PM emissions from this operation are controlled by a baghouse. Steel dust collected in the baghouse is shipped offsite to a steel recycler.
- 3. Painting** - A paint booth is used to apply paints to the surface of the large pre-fabricated steel elements of the water tanks prepared by the blasting operation. Exhaust from the booth is directed towards two vertical stacks located outside the building. This operation accounts for most of the VOC emissions from the facility if not all. Air filters are utilized to capture the particulate emissions from this area. The booth is not an enclosed structure (no sidewall or roof) and therefore the booth has a relatively low capture efficiency. It is believed that a high percentage (80%) of the particulate emissions from the overspray are deposited in the vicinity of the booth within the building. Occasionally certain parts too large to fit into the booth have to be painted outside the booth but inside the building.
- 4. Parts Washer** - A parts washer is being used in the maintenance room. The solvent used in the washer has the potential to contribute to VOC emissions.
- 5. Paint Distillator** - A paint distillation unit is located in the paint booth area. It is used for recycling the solvents used for cleaning of the painting equipment.

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Air pollutant emissions from cutting, welding, gouging, shotblasting, and solvent cleaning (parts washer) operations are considered insignificant as these activities are listed in Section 4.10 (Insignificant Activities Checklist) of the Title V permit application. The paint distillation unit is an insignificant source because the potential to emit for VOC is less than 1 tpy.

**B. Equipment List for the Process**

Emission Units		Pollutant(s) Emitted	Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description		Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
PB01	Paint Booth 01	PM, VOC, HAP	391-3-1-.02(2)(ii), 391-3-1-.02(2)(e), 391-3-1-.02(2)(b)	2.1.1, 3.4.1, 3.4.2, 3.4.3, 3.5.1, 5.2.1, 5.2.2, 6.2.1, 6.2.2, 6.2.3, 6.2.4, 6.2.5	DF01	Exhaust Filter
LP01	Indoor Large Part Painting 01	PM, VOC, HAP	391-3-1-.02(2)(ii), 391-3-1-.02(2)(e), 391-3-1-.02(2)(b)	2.1.1, 3.4.1, 3.4.2, 3.4.3, 6.2.1, 6.2.2, 6.2.3, 6.2.4, 6.2.5	N/A	None

\* Generally Applicable Requirements contained in this permit may apply also to emission units listed above.

**C. Equipment & Rule Applicability**

! Emission and Operating Caps - None applicable.

! Applicable Rules and Regulations -

Rules and Regulations Assessment:

Emission and Operating Standards:

- a. This facility is located in an ozone non-attainment area, and has the potential to emit more than 10 tpy of VOC from the miscellaneous metal parts surface coating operation(s). Therefore the facility is subject to Georgia Rule 391-3-1-.02(2)(ii) - *VOC Emissions from Surface Coating of Miscellaneous Metal Parts and Products*. This rule applies to all operation(s) classified as surface coating of miscellaneous metal parts at this facility.
- b. Rule 391-3-1-.02(2)(e) applies to all manufacturing processes in this facility which emit PM. This rule limits the PM emission rates from these processes to no more than the values which are determined using  $E=4.1P^{0.67}$ , where E equals the allowable particulate emission rate in pounds per hour and P equals the process weight input rate in tons per hour.
- c. Rule 391-3-1-.02(2)(b) applies to manufacturing processes which are subject to Rule 391-3-1-.02(2)(e). This rule limits the visible emissions from these processes to less than forty (40) percent opacity.

**D. Compliance Status**

The facility submitted a Section 11.10 form for not submitting the Title V permit application on time.

E. Operational Flexibility: See Section VII A.

F. Permit Conditions

Condition 3.4.1 is incorporated from the current permit No. 3443-038-4277-0 and its amendment. It subjects the metal part surface coating operations at this facility to Rule 391-3-1-.02(2)(ii) which establishes VOC emissions rate limits according to the type of the coatings involved and/or the compliance method chosen. [391-3-1-.02(2)(ii)]

Condition 3.4.2 is added to establish SIP PM emission standards for manufacturing process(s) with PM emissions. [391-3-1-.02(2)(e)]

Condition 3.4.3 is added to establish a SIP visible emission standard for manufacturing process(s) which also has SIP PM emission standards as established under Condition 3.4.2. [391-3-1-.02(2)(b)]

Condition 3.5.1 establishes a schedule to change the exhaust/overspray filters serving the coating spray booth. Proper maintenance of the filter control system would reduce PM emissions from overspray. [391-3-1-.02(2)(a)]

**IV. Testing Requirements (with Associated Record Keeping and Reporting)**

A. General Testing Requirements

None of the applicable regulations require performance testing therefore this permit does not contain any conditions requiring specific testing. The permit does specify that a performance test may be required to determine compliance with the emission limits in Part 3.0. A condition requiring written prior notification of any test is included. The test methods to be used to determine compliance, if required in the future, are listed in Condition 4.1.3.

B. Specific Testing Requirements

None Applicable

**V. Monitoring Requirements (with Associated Record Keeping and Reporting)**

A. General Monitoring Requirements

Condition 5.1.1 requires that all monitors be operated continuously except during breakdowns, repairs, and quality assurance activities. Any repairs or maintenance should be completed in an expeditious manner so downtime is minimized. All data should also be recorded during any calibration activity to help verify that the calibration was performed and completed properly.

B. Specific Monitoring Requirements

Condition 5.2.1 requires the Permittee to keep a log of paint booth exhaust filter changes, and to report any failure to adhere to the filter change schedule in the facility's semiannual report according to Condition 5.3.

Condition 5.2.2 details deviations which are to be included in the semiannual report required in Condition 5.3.1. An (emission) exceedance would occur if VOC records indicate that the facility emitted 50 tons of VOC or more (from the limit in Condition 2.1.1) in a twelve consecutive month period. An (emission) exceedance would also occur if the facility exceeds the coating limits of Rule (ii) in Condition 3.4.1. Any failure to adhere to the filter change schedule specified in Condition 3.5.1 is to be reported as an excursion. No excess emissions are required to be reported according to 5.3.1.

Paint booth 01 (Source Code PB01) paints large tank pieces. The "booth" is not of typical construction. The "booth" does not have roof and has only one sidewall so that heavy machinery may move the pieces around. Paint Booth 1 is subject to Georgia Rules (b), (e), and (ii). The opacity and particulate matter standards of Rules (b) or (e) would generally be exceeded only if the spray gun operator continually sprays up into the air and not on a part. This practice would not be consistent with normal and prudent operation and also would be a practice that the operator's supervisor would no doubt discourage. Enclosure of the booth in order to route emissions through a conventional stack would be impractical since a retractable roof would need to be installed to move the large tank pieces in and out of the booth. Another solution might be making smaller tank sections but the smaller sections would require more welds in construction and greatly increase the likelihood of a critical failure after installation. Because no real enclosure exists with this "booth" and because the likelihood of a violation is minimal, no monitoring is recommended for the opacity and particulate matter standards. Rule (ii) contains a VOC coating limit. Compliance with Rule (ii) will be determined by the maintenance of VOC coating records contained in Part 6.0 of the Title V Permit.

**C. Record keeping and Reporting Requirements**

The Permittee is required in Condition 5.3.1 to submit a semiannual report. The Permittee is required to keep a log of filter changes, and any failure to adhere to the filter change schedule is to be reported as an excursion in the facility's semiannual report. The report should also contain information on excess emissions (if any) which occurred during the reporting period. The required information is enumerated in the Condition. Condition 5.3.2 requires any analysis or sampling records to be kept. All records should be maintained for at least five years according to Condition 5.3.3.

**VI. Other Record Keeping and Reporting Requirements**

**A. General Record keeping and Reporting Requirements**

The Permit contains general requirements for the maintenance of all records for a period of five years following the date of entry and requires the prompt reporting of all related information for deviations from applicable requirements.

**B. Specific Record keeping and Reporting Requirements**

The Permittee is required in Condition 6.2.1 to keep monthly records on the throughput and usage of all materials containing volatile organic compounds. Condition 6.2.2 requires the Permittee to calculate total monthly VOC emissions. If the total monthly VOC emissions exceed 4.2 tons, the Division must be notified. Condition 6.2.3 requires the Permittee to submit twelve month rolling total of VOC emissions with the semiannual report of Condition 5.3.1.

Georgia Rule (ii) places limits on the VOC content of each of the coatings used at the facility. The coating VOC content should be determined on an "as delivered" basis. For explanation purposes, "as delivered" shall mean the VOC concentration, excluding water, of the coating as used at the coating applicator, e.g. a spray gun. The VOC content of constituent coating ingredients would not of themselves be relevant to Rule (ii) - only the final mixed composition.

The Permittee must keep records of the "as delivered" VOC content as required in Condition 6.2.4. With one exception, any coating delivered to the applicator must not exceed the VOC content limits stated in Rule (ii) which are summarized in Condition 3.4.1. The exception to the VOC content limit is when the weighted average VOC content of all coatings (on an "as delivered" basis) used over a 24 hour period on a coating line is less than the VOC solids equivalent limit. Therefore, the records required in Condition 6.2.4 should reflect which compliance strategy the company would like to take - the all compliant coating approach or the 24 hour weighted average approach. Sufficient documentation should be used to support whichever approach is taken.

The facility is subject to an annual emissions statement reporting requirement for VOC emissions under Rule 391-3-1-.02(6)(a)4. Condition 6.2.5 requires that this report be submitted by March 31 of each year.

**VII. Specific Requirements**

A. Operational Flexibility

The applicant did not include any alternative operating scenarios in their Title V permit Application. Operational flexibility does not need to be incorporated into this Title V Permit.

B. Alternative Requirements

There are no alternative requirement that need to be incorporated into this Title V Permit.

C. Insignificant Activities

Refer to §4.10 of the Title V permit application

D. Temporary Sources

The Permittee has not requested to operate any temporary sources.

E. Short-Term Activities

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In Section 4.40 of the Title V permit application the company reported occasional maintenance related painting operations as short-term activities. It is believed that these operations should be listed as insignificant activities because of low emissions. Their VOC emissions have to be limited by the facility wide VOC cap.

F. Compliance Schedule/Progress Reports

The facility included a Section 11.10 form for not submitting the Title V permit application on time. No compliance schedule/progress report is necessary.

G. Emissions Trading

The facility is not involved in any emission trading program.

H. Acid Rain Requirements

The facility is not subject to any requirements in Title IV of the Clean Air Act.

I. Prevention of Accidental Releases

The facility is not subject to any requirements for the Prevention of Accidental Releases.

J. Stratospheric Ozone Protection Requirements

This facility operates air conditioners or refrigeration equipment that use CFC's or other stratospheric ozone-depleting substances listed in 40 CFR Part 82, Subpart A, Appendices A and B. A number of the equipment contain a refrigerant charge of greater than 50 pounds. The facility is subject to the applicable requirements of 40 CFR Part 82.

K. Pollution Prevention

There are no pollution prevention provisions incorporated into this Title V Permit.

L. Specific Conditions

None.

**VIII. General Provisions**

Generic provisions have been included in this permit to address the requirements in 40 CFR Part 70 that apply to all Title V sources, and the requirements in Chapter 391-3-1 of the Georgia Rules for Air Quality Control that apply to all stationary sources of air pollution.

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**Closing Block:** We have reviewed and recommend issuance of draft Permit No. 3443-077-0009-V-01-0

Program	Review Engineers	Dates	Review Managers	Dates
SSPP/ASU				
SSCP/ASU				
ISMP				
TOXICS				

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**Stationary Source Permitting Program Manager**

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Date

The facility, Caldwell Tanks Alliance LLC. - Broad Street Facility, had five comments regarding draft Title V permit No. 3443-077-0009-V-01-0. No comments from the public were received. The facility's comments are outlined below with the Division's responses following each comment.

Comment 1: Inform that the Title V permit application should have listed two instead of one existing plasma-arc cutting machine. Request the overall facility process description in Section 1.3 of the Permit to be reworded accordingly.

**Response** - This comment is reasonable. The description will be reworded.

Comment 2: Claim that the requirement for replacing paint booth filters weekly in Condition 3.5.1 seems "excessive". Suggest that replacing the filters every two weeks of operation instead of every week could probably maintain the performance of the filters.

**Response** - The suggestion is acceptable considering that it is based on experience from the operation of the paint booth. Condition 3.5.1 will be revised accordingly.

Comment 3: Claim that the record keeping and reporting of total process operating time as required by Condition 5.3.1(b) "seems inappropriate" when applying to the paint booth because "Regulation 391-3-1-.02(b)(1)(ii) does not specifically require operating time to be reported." Claim that "no reasonable method or device has been identified to record paint spray gun on-time." Propose "monitoring and reporting total gallons of paint used during the 6-month reporting period."

**Response** - Georgia Rules for Air Quality Control does not have a provision as "391-3-1-.02(b)(1)(ii)". Probably what the Permittee really meant is Rule 391-3-1-.02(2)(ii) - "VOC Emissions from Surface Coating of Miscellaneous Metal Parts and Products." The painting operation/booth is subject to this rule. The Permittee shall follow Conditions 4.1.3, 6.2.1 and 6.2.4 to demonstrate compliance with the applicable emission limit(s) in this rule. Nevertheless, Condition 5.3.1 is a general condition for record keeping and reporting based on 391-3-1-.02(6)(b)(1) and 40 CFR 70.6(a)(3)(iii)(A). Rule 391-3-1-.02(6)(b)(1) describes the general monitoring and reporting requirements for all sources. The rule allows the Director to request emission sources to maintain and report specific types of information, including "production and process feed rates, process charging rates, burning rates, hours of operation and periodic summaries of this information" in Subsection (ii)(IV) of the rule. 40 CFR 70.6(a)(3)(iii)(A) requires any major Title V source to submit reports of any required monitoring at least every 6 months. Both rules allow the Director to request information in addition to what required by Rule 391-3-1-.02(2)(ii).

Based on the fact that the spray gun on-time is not essential for the determination of compliance with Rule 391-3-1-.02(2)(ii), the "total process operating time" could be the sum of the booth operation time or the operator work hour as logged. The 6-month paint usage is not a direct indication of the duration of the painting operation or the VOC emission rates. Therefore, its submittal is not necessary. In conclusion, no change will be made to this condition.

Comment 4: Request the Permit to include an “alternative operating scenario” to allow painting occasionally large parts which is too big to fit in paint booth PB01 outside the booth.

**Response** - Since the large part painting operation is an indoor activity, the Permittee has taken reasonable precaution to reduce the possible emissions from the operation. The operation should be able to comply with both the PM and visible emission standards. Because the booth painting and the large part painting could occur at same time as production requires, a suggestion was made to the Permittee that in order to allow more production flexibility, it would be better to permit the large part painting as a separate source. The suggestion has been accepted and the activity will be listed as “Indoor Large Part Painting 01 (LP01) in Part 3.0 of the Permit.

Comment 5. Request to list small fuel burning units (space heaters) mistakenly omitted from the Title V permit application.

**Response** - This request is reasonable. These small sources will be listed under Generic Emission Groups of Attachment B of the Permit.