



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 07 2007 - 012 Project Number: 2006-12-055

Parent Company: Alcan Products Corporation

Parent Company Address: 6060 Parkland Blvd., Cleveland Ohio 44124-4185

Installation Name: Alcan Cable

Installation Address: 20213 Whitefield Road, Sedalia, MO 65301

Location Information: Pettis County, S26, T46N, 22W

Application for Authority to Construct was made for:

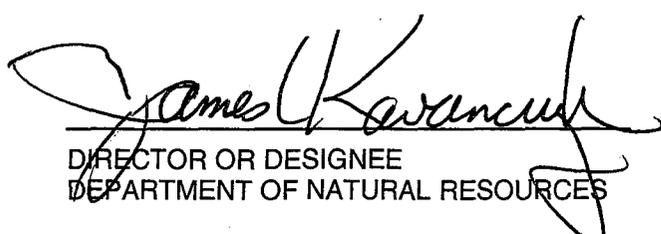
The expansion of the existing installation by installing additional cabling and armoring. The hourly capacity of cabling will increase 2600 pounds/hour and will allow for an increase in extruding of cable in moisture lines 1 and 2 and the CV-1 extrusion line. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

JUL 30 2007

EFFECTIVE DATE


DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the department's Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources' Regional office responsible for the area within which you are located with 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, Attention: Construction Permit Unit.

STATE OF MISSOURI



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Page No.	3
Permit No.	
Project No.	2006-12-055

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

Alcan Cable
Pettis County, S26, T46N, 22W

1. Superseding Condition

The conditions of this permit supersede Special Condition 1 of Permit Number 052005-021 (project number 2005-02-064).

2. HAPs Emission Limitations

- A. Alcan Cable shall limit the entire installation to less than ten (10) tons individually or twenty-five (25) tons combined of Hazardous Air Pollutants (HAPs) emissions from the entire installation in any consecutive 12-month rolling average period.
- B. Attachment B, Attachment C, and Attachment D or equivalent forms approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Conditions 2.A. The records must include each individual HAP identified on the Material Safety Data Sheets (MSDS) for the HAP containing products in use in the entire installation. The total of the individual HAPs must add up to the total combined HAPs. Alcan Cable shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include MSDS for all materials used.
- C. Alcan Cable shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 2.B. indicate that the source exceeds the limitation of Special Conditions Number 2.A.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2006-12-055
Installation ID Number: 159-0022
Permit Number:

Alcan Cable
20213 Whitefield Road
Sedalia, MO 65301

Complete: December 12, 2006
Reviewed: April 15, 2007

Parent Company:
Alcan Products Corporation
6060 Parkland Blvd.
Cleveland, Ohio 44124-4185

Pettis County, S26, T46N, 22W

REVIEW SUMMARY

- Alcan Cable has applied for authority to expand the existing installation by installing additional cabling and armoring. The hourly capacity of cabling will increase up to 2600 pounds/hour and will allow for an increase in extruding of cable in moisture lines 1 and 2 and the CV-1 extrusion line.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. HAPs of concern from this process are acetophenone and methanol.
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) or currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment. However, the only MACT standard that potentially may apply is 40 CFR Part 63 Subpart DDDDD, if the site was a major source of any HAPs. The site has taken a limit to not be a major source of HAPs.
- No air pollution control equipment is being used in association with the new equipment.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of methanol are conditioned to be below de minimis levels.
- This installation is located in Pettis County, an attainment area for all criteria air pollutants.
- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].

- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.
- Emissions testing is not required for the equipment.
- An Intermediate Operating Permit application is required for this installation within 30 days of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Alcan Cable is an existing aluminum cable manufacturing facility located in Pettis County in Sedalia, Missouri. The Sedalia plant operates 24 hours a day, 7 days a week with about 220 employees and produces electrical cable for commercial applications. The process involves receiving aluminum rods, which are then drawn and stranded to the correct electrical specifications. The strand is then heated in an annealing furnace to improve mechanical and electrical properties. The strand may be shipped bare or insulated. The insulation process involves extruding various plastics and coating over the strand after which some are labeled using printers. Lengths of jacketed strand are then cabled together to make up the various products.

The main emissions from this project originate from the saunas used to moisture cure the extruded product and storage of the cured product on reels prior to further processing and or shipment.

Alcan Cable has the potential to be a major source of HAPs, but has submitted an application for an intermediate operating permit (project number 159002020). The intermediate operating permit limits the emission to less than 10 tons per year, and the emissions of all HAPs combined to not exceed 25 tons per year.

This project 2006-12-055 limits the entire installation to a limit of less than ten (10) tons of methanol (HAP) in any consecutive 12-month period.

The following permits have been issued to Alcan Cable from the Air Pollution Control Program.

Table 1: Permit Activity at Alcan Cable (159-0022)

Permit Number	Description
1097-008	Installation of three(3) ink jet printers
0798-003	Installation of one (1) ink jet printer
112000-006	Installation of a steam generator
112000-006A	Amendment of Permit number 112000-006
072001-011	Replace Extrusion Line
052005-021	Add Production Lines

This plant constructed 4 saunas without obtaining a construction permit. Obtaining

permit number 052005-021 was the remedial enforcement action to correct the failure to obtain a construction permit.

PROJECT DESCRIPTION

Construction permit 052005-021 added moisture cure line 2 (referred to as flat line 2) This essentially doubled the capacity of the moisture cure compound from 1500 pounds per hour to 3000 pounds per hour. The number of saunas was also increased with permit 052005-021 from 4 to 12 with a maximum hourly design rate of 4380 pounds per hour of moisture cure compound. The capacity of the saunas is greater than the 3000 pounds per hour of the moisture cure extrusion rates for lines 1 and 2. Moisture cure lines 1 and 2 can each still process 1500 pounds per hour of compound and CV1 can still process 1286 pounds per hour of compound.

However, the installation is bottlenecked at the cabling operation. Cabling is the down stream process where individual conductors are reassembled together. This project is to increase the cabling rate by 2,600 pounds of aluminum per hour. Currently there are two cablers. The 50 inch cabler is rated for 2000 pounds per hour of aluminum throughput. The 68 inch cabler is rated for 2,600 pounds per hour. The new 68 inch cabler is also rated for 2,600 pounds of aluminum per hour.

The maximum hourly rate of extrusion through moisture cure lines 1 and 2 and CV1 are not changing. Moisture cure lines 1 and 2 can each process 1500 pounds per hour of compound and CV1 can still process 1286 pounds per hour of compound. This total amount of extrusion is equivalent to 10,000 pounds per hour of aluminum. This project is not adjusting the two existing moisture cure lines from permit number 052005-021. The CV line is rated at 3000 pounds per hour of aluminum throughput. This cabling project will allow for additional utilization of the extrusion lines as they will be able to process 2,600 more pounds of aluminum per hour. This will give the site a total cabling capacity of 7200 pounds of aluminum per hour (4600 to 7200).

The project includes adding more armor lines in 2007. Armoring occurs after cabling where an armor jacket is added over the cable. Armor is not added to every cable. Presently four armor units currently are able to achieve 3,150 pounds of Aluminum per hour (1 at 750, 1 at 700, 1 at 800 and 1 at 900 pounds of aluminum per hour). In 2007, two new armor units will be added. They each are rated at 900 pounds of aluminum per hour. In 2010, two additional 900 pound of aluminum per hour units will be added. The final capacity will be 6,750 pound per hour of aluminum throughput.

The two poly line and armor lines all occur after cabling. All products do not receive a poly jacket and all are not armored. The bottleneck will continue to be cabling.

Alcan Cable is proposing to install equipment (Table 2) that has no emissions

associated with the equipment operation. However, the operations associated with that equipment can be a source of emissions. The emission increase from this project is due to the additional cabling capacity being added. These emissions will come from peroxide compound, moisture cure compound, poly line compound, facility-wide natural gas usage, facility wide coating and legend painting correction.

Table 2: New Equipment added that does not have emissions.

68 inch cabler	Coilers (2)	Armor lines (4 total)
Double Twist Strander	54 Wire Rigid Strander	Single Twist Strander
Rewind Lines (2)	Neutral Serve 31 inch Bobbin	Product Test Station

Emissions for facility wide coating and natural gas consumption were estimated from the ratio of current to previous year aluminum rod throughput. This overestimates the emissions from printing since color coating will be eliminated by mid year 2007. This also overstates the solvent consumption needed for print correcting color coating removal which will also be eliminated by midyear of 2007.

In addition, two annealing furnaces (each 4 MMBtu/hr) are being added. Also, two low pressure boilers (3 MMBtu/hour) will be added to supply steam to the 12 existing saunas. The existing two high-pressure boilers will be dismantled and removed from service.

Two scenarios were conducted to assess the maximum increase in hourly emissions from the 68 inch cabler that will be added in 2007. Both scenarios assume cabling capacity increases from 4,600 to 7,200 pound of aluminum per hour. Case one maximizes moisture cure product at 7,000 pounds per hour and the remaining 200 pounds per hour cable capacity consumed by the CV line. The other case maximizes CV-1 throughput at 3,000 pounds per hour with the remaining 4,200 pounds per hour cable capacity consumed by the two moisture cure lines. Case one and case two emissions are summarized in the following table.

Table 3: Case One and Case Two Emissions

Description and Units	Case One*		Case Two*	
	MC Lines Methanol	CV Lines Acetophenone	MC Lines Methanol	CV Lines Acetophenone
Potential emission if not bottlenecked by cabling (tons per year)	17.52	1.04	17.5	1.04
Actual Emissions based on pounds of compound for a Two Year Average (tons per year)	4.47	0.51	4.57	0.51
Projected hourly emission increase in emissions with more cable capacity (Pounds per year)	1.37	0.02	1.49	N/A
Potential Annual Emissions Increase with more cable capacity. (tons per year)	6.01	0.07	6.51	N/A

* Case one is maximum moisture cure production and case two is maximum CV1 production.

Other scenarios indicate potential emissions increases in methanol emissions will not exceed 6.51 tons per year above the actual 2-year average emissions for the 2005 to 2006 period. Potential increases in acetophenone are 0.53 tons per year above the most recent 2-year average.

Additionally, plans are to install a new poly line. This line (poly line 3) is to be installed in the new building. Once installed and operational, poly line 1 will be dismantled and removed from service. This is considered a like kind exchange and the emissions are not considered in this de-bottlenecking. Silos currently in use for poly lines 1 and 2 will remain in service for compound storage. Poly line 3 will require two (2) new silos and plastic pellet handling equipment for the pellets is exempt from construction permits.

The existing four armoring lines being upgraded means existing equipment is being modernized. However, the maximum hourly design rate is not increasing as a result of the modernized upgrade.

Table 4: Alcan Cable's existing building revisions at 159-0022.

Existing Building – Revision Planned	Year
New Annealing Furnace #4	2009
Replace Annealing Furnace #1	2009
New Annealing Furnace #5	2010
Discontinue Poly Line #1	2009
Remove #3 and #7 Tube Stranders	2008
Furnace Building Expansion	2009
New Double Twist Strander	2009
New Rewind Line	2010
New Dual Wire Draw and remove 10DXT-1 Draw Machine	2010
New Coilers (2)	2010
New 54 wire Rigid Strander	2010
New Neutral Serve (31" bbn) to replace existing (22" bbn)	2010
Replace High pressure boilers with two low pressure boilers	2010

Table 5: Alcan Cable's new building revisions at 159-0022.

New Building –Process Revisions	Year
New 68 inch Cabler	2007
Replace 50 inch Bow Cabler with new 50 inch Bow Cabler	2008
Move Existing 68inch Bow Cabler	2009
New Armor Lines (2)	2007
Upgrade Existing Armor lines (2) and Relocate	2008
Upgrade Existing Armor lines (2) and Relocate	2009
New Armor Lines (2)	2010
New Single Twist Strander	2008
New poly line 3 Followed by legend Printer	2008
New PVC Compound Silos (2)	2008
New Product Test Station	2008
New Rewind	2008
New Shipping Area	2008

EMISSIONS/CONTROLS EVALUATION

The emission factors used in this analysis were obtained from testing conducted by the site, Material Safety Data Sheets (MSDS), or historical usage and mass balance, and from plant testing at a similar installation. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year.) The following table provides an emissions summary for this project.

Table 6: Emissions Summary (tons per year).

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions**	Existing Actual Emissions (2005 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM ₁₀	15.0	1.52	0.14	0.46	N/D
SO _x	40.0	N/A	0.01	0.04	N/D
NO _x	40.0	N/A	1.82	9.38	N/D
VOC	40.0	20.05	8.50	7.38****	N/D
CO	100.0	1.98	1.53	5.05	N/D
HAPs	10.0/25.0	16.09	N/D	7.04	<10.0/25.0
Methanol	10.0	16.10	N/D	6.51***	<10.0
Acetophenone	10.0	N/D	N/D	0.53***	<10.0

*N/A = Not Applicable; N/D = Not Determined

** Taken from Permit Number with project number: 2005-02-064

*** De - bottlenecking PTE emissions are above the actual 2-year average emissions for 2005 to 2006 period.

**** VOC PTE emissions include Methanol and Acetophenone which are both a VOC and a HAP.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are below de minimis levels.

APPLICABLE REQUIREMENTS

Alcan Cable shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit – modify for sources not required to submit an operating permit.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required April 1 for the previous year's emissions.
- *Operating Permits*, 10 CSR 10-6.065
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-3.090

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Timothy Paul Hines
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated 12/20/06, received 12/21/2006, designating Alcan Products Corporation as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Kansas City Regional Office Site Survey, dated 01/09/07.

Compare potential emissions of the individual HAP in [Column 6] to those from [Column 7]. If [Column 6] is greater than [Column 7], obtain permission from Air Pollution Control program before using this material.

Mr. Allen Sublett
Environmental Coordinator
Alcan Cable
20213 Whitefield Road
Sedalia, MO 65301-1519

RE: New Source Review Permit - Project Number: 2006-12-055

Dear Mr. Allen Sublett:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files.

Operation in accordance with these conditions, your new source review permit application and with your amended operating permit is necessary for continued compliance.

The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact Tim Hines at (573) 751-4817, or you may write to me at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:thl

Enclosures

c: Kansas City Regional Office
PAMS File 2006-12-055

Permit Number: