

Notice of Alteration Form



Client File No. : 491.10	Environment Act Licence No. : 1085 RRR
Legal name of the Licencee: Darling International Canada Inc.	
Name of the development: Darling Ingredients - Winnipeg Plant	
Category and Type of development per Classes of Development Regulation: Agriculture Rendering plants	
Licencee Contact Person: Jonathan Ramirez Mailing address of the Licencee: 607 Dawson Road N City: Winnipeg Province: MB Postal Code: R2J 0T2 Phone Number: (204) 800-5629 Fax: Email: jonathan.ramirez@darlingii.com	
Name of proponent contact person for purposes of the environmental assessment (e.g. consultant): Jonathan Ramirez	
Phone: (204) 800-5629 Fax:	Mailing address: 607 Dawson Road N Winnipeg, MB R2J 0T2
Email address: jonathan.ramirez@darlingii.com	
Short Description of Alteration (<i>max 90 characters</i>): Replace a 35,000 lbs/hr air-cooled condenser with a 42,000 lbs/hr air-cooled condenser.	
Alteration fee attached: Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>	
If No, please explain:	
Date: 2021-05-18	Signature: <div style="background-color: black; width: 150px; height: 30px; display: inline-block;"></div> Printed name: Jonathan Ramirez
<p>A complete Notice of Alteration (NoA) consists of the following components:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Cover letter <input checked="" type="checkbox"/> Notice of Alteration Form <input checked="" type="checkbox"/> 2 hard copies and 1 electronic copy of the NoA detailed report (see "Information Bulletin - Alteration to Developments with Environment Act Licences") <input checked="" type="checkbox"/> \$500 Application fee, if applicable (Cheque, payable to the Minister of Finance) 	
<p>Submit the complete NoA to:</p> <p style="margin-left: 40px;">Director Environmental Approvals Branch Manitoba Sustainable Development 1007 Century Street Winnipeg, Manitoba R3H 0W4</p> <p>For more information:</p> <p style="margin-left: 40px;">Phone: (204) 945-8321 Fax: (204) 945-5229 http://www.gov.mb.ca/sd/eal</p>	
<p>Note: Per Section 14(3) of the Environment Act, Major Notices of Alteration must be filed through submission of an Environment Act Proposal Form (see "Information Bulletin – Environment Act Proposal Report Guidelines")</p>	

May 18, 2021

Director
Environmental Approvals Branch
Manitoba Conservation and Climate
1007 Century Street
Winnipeg, MB R3H 0W4

Darling International Canada
Inc.

607 Dawson Road
Winnipeg, MB R2J 0T2

T: 204-233-7347

darlingii.com

**Re: Notice of Alteration, Environment Act Licence No. 1085 RRR,
Cooker Air-Cooled Condenser Replacement
Darling Ingredients – Winnipeg Plant**

Please find enclosed an application for a Notice of Alteration for the Darling Ingredients, Winnipeg Plant ('Plant') located at 607 Dawson Road, Winnipeg, Manitoba. This application is being submitted under the existing Environment Act Licence No. 1085 RRR. Currently, the Plant has two (2) air-cooled condensers and one (1) shell-and-tube condenser. This application pertains to the replacement of the cooker air-cooled condenser located within the main processing area of the Plant.

Existing Cooker Air-Cooled Condenser

The existing cooker air-cooled condenser ('Existing Condenser') was installed in 1996 and has a rated fluid entering capacity (steam and non-condensable gases) of 35,000 lbs/hr. The purpose of the Existing Condenser is to condense vapours from the cooking process to reduce cooking odour emissions from the Plant. Vapour that is cooled is converted to condensate and is sent to the Plant's wastewater treatment plant (WWTP), where it is treated prior to discharge to the City of Winnipeg's sanitary wastewater sewer system. Non-condensable gases are sent to the Plant's air quality control system where the air is treated in chemical scrubbers prior to discharging to the atmosphere.

Specifications for the Existing Condenser are provided in Attachment 1

New Cooker Air-Cooled Condenser

Given that the Existing Condenser is approximately 25 years old and is no longer operating near its rated capacity, Darling Ingredients is planning to replace it with a new air-cooled condenser ('New Condenser') in August 2021.

The New Condenser is an AC Corporation Model ACC-420 air-cooled condenser, which has a total fluid entering capacity of 42,000 lbs/hr (37,800 lbs/hr of steam, 4,200 lbs/hr of non-condensable gases).

A Site Plan illustrating the proposed location for the New Condenser is provided in Attachment 2 and specifications of the New Condenser are provided in Attachment 3.

Increasing the capacity of the Existing Condenser by approximately 20% will result in improved condensing of vapours from the cooking process and will result in less odour generated from the cooking process. Therefore, potential environmental effects associated with the New Condenser are anticipated to be negligible.

Closing

A Notice of Alteration Form and the required application fee is also attached.

If you have any questions or require any additional information, please don't hesitate to contact me directly.

Regards,



Jonathan Ramirez

Plant Manager, Winnipeg Plant

cc: Mariana Moreira, Environmental & Quality Assurance Supervisor, Darling Ingredients, Winnipeg Plant
John Bayliss, Environmental Manager, Darling Ingredients

Attachment 1: Specifications – Existing Condenser

Rothsay Rendering Div.
607 Dawson Rd.
Winnipeg Manitoba

Aug.1st.1996

Ref.No.20-5820

Att: Ron Vincent;

Re: Air Cooled Condenser

Dear Ron;

Malnar Industries Ltd. is pleased to quote on the supply of the following unit for your plant.

- 1 only ACHE 35-48-4 Air cooled heat exchanger with a capacity of 35,000 Lbs/hr. steam and nocondensable gases.
1 1/4" stainless steel tubes with aluminum fin spirally wrapped around the tube.
Nominal size of unit to be 48' long by 16' wide with a total dry weight of 39,300 lbs.
3625 sq. ft. surface area
Stainless steel headers with removable front section for cleaning. 6 only 6" inlet pipes, 3 only 3" outlet pipes and 2 only 6" vents.
One fixed head and one floating head.
2 only 40 HP. 1800 RPM motors 575 volt 3 ph. 60
2 only 14' dia. fans with a total of 237,000 CFM.
- 1 only Structural steel support frame to mount the unit on with 6 support legs. Height to be set as to structure that would be built on the roof.
Unit to be painted with one coat of red oxide paint after fabrication.
- 1 only Motor control panel with 2 variable speed controllers for the 40 HP. motors c/w line reactors for drive protection.
Units to be controlled by temperature from the condensate drain lines or outside temperature.
4 to 20 MA signal to inverters.
120 Volt control voltage
Terminal strips for all field wiring

Our price for the above air cooled condenser \$197,950.00
(One hundred ninety-seven thousand nine hundred and fifty dollars)

- * All taxes extra where applicable
- * Delivery would be 14 to 16 weeks upon order

- * F.O.B. our shop Winnipeg, Manitoba
- * Price subject to revision net 60 days

Not included in the above price would be the following:

- * All temperature sensors and controls
- * Vibration control sensors if required
- * All electrical field wiring
- * Installation of unit on site
- * Roof supports for unit installation

Optional Equipment:

- 2 only Vibration switches one for each fan on the unit.
Model SV-2 in a Nema 1
c/w mounting pad

- 2 only Vibration switches one for each fan on the unit.
IRD Model in a Nema 1
c/w mounting pad, digital display monitoring
programable sensitivity:

- 1 only Foxboro Cascade controller with two RTD's and
Transmitters

Terms of payment:

25% down with order
Balance upon shipment of unit

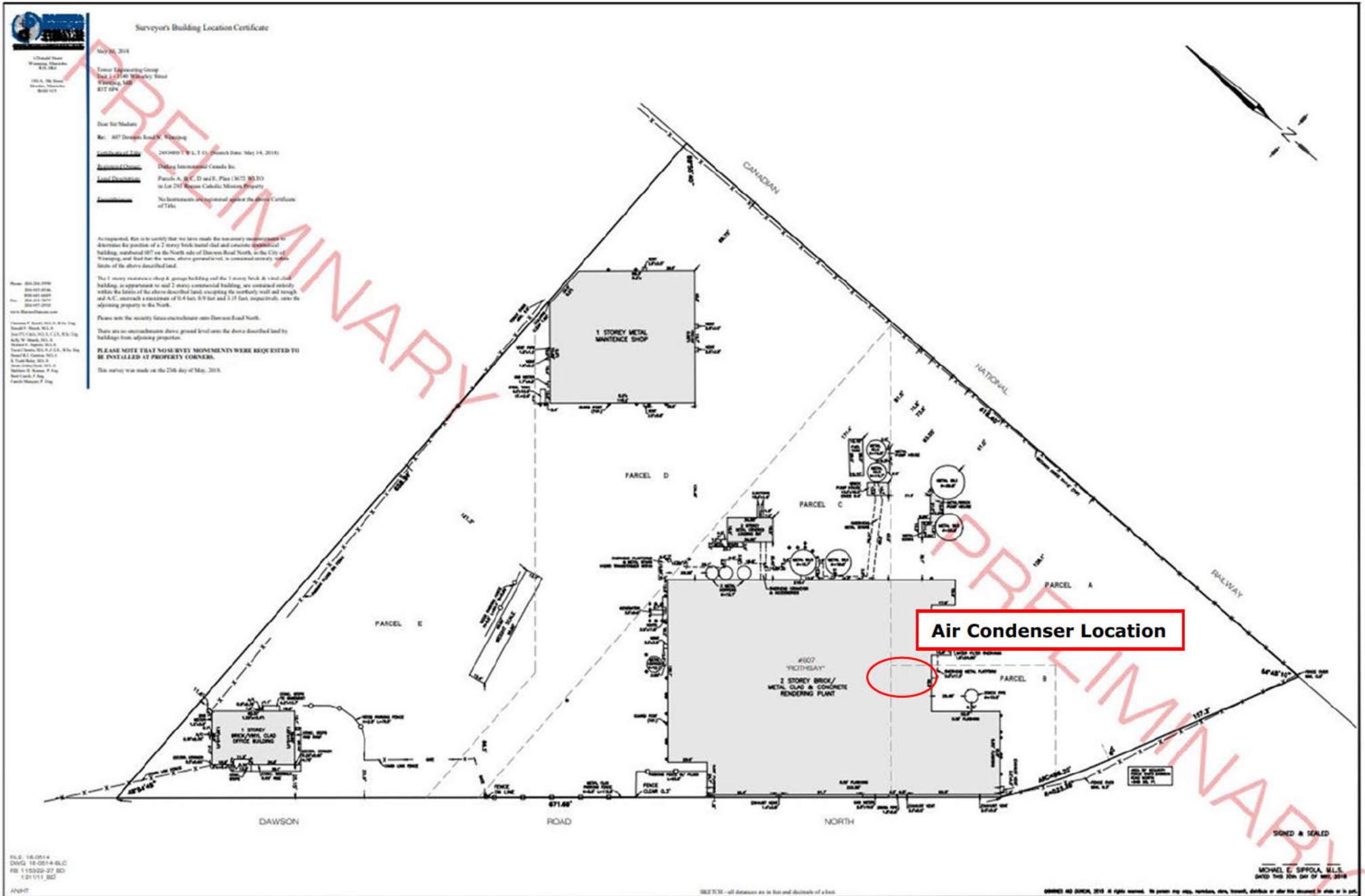
We trust that you find our quotation complete and attractive and hope that we can be of further service to you in the future. If there are any questions please feel free to contact us and we would be pleased to help in any way that we can.

Yours truly
Malnar Industries Ltd.

Don Edwards

Attachment 2: Site Plan – New Condenser

Site Plan – Winnipeg Air Condenser



Attachment 3: Specifications – New Condenser

Jay Gee Manufacturing - Butler, KY
JOB NUMBER: 1180084

DATE 6/05/18

AC CORPORATION
GREENSBORO NORTH CAROLINA

AIR COOLED CONDENSER SPECIFICATIONS
MODEL NO. ACC-420S

PERFORMANCE DATA

TUBE SIDE

FLUID CIRCULATED <u>STEAM</u>	TOTAL FLUID ENTERING #/HR <u>42,000</u>
STEAM #/HR <u>37,800</u>	NON-CONDENSIBLES #/HR <u>4,200</u>
TEMPERATURE IN <u>212 °F</u>	TEMPERATURE OUT <u>130°F</u>
FOULING FACTOR HR. SQ. FT. °F/BTU <u>0.001</u>	DESIGN PRESSURE DROP <u>.25</u> PSI

AIR SIDE

AIR QUANTITY/FAN ACFM <u>270,000</u>	TEMPERATURE IN <u>95 °F</u>
	TEMPERATURE OUT <u>167 °F</u>

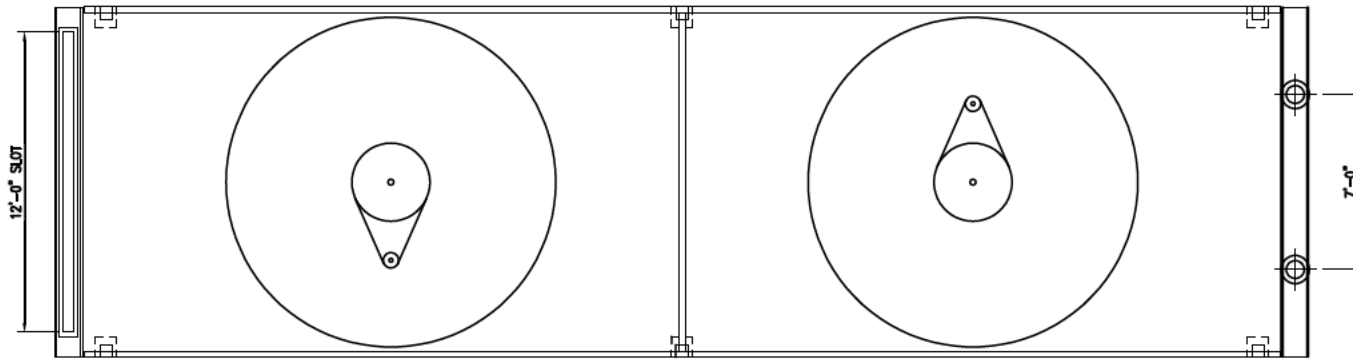
CONSTRUCTION

<u>HEADER</u>	<u>TUBE</u>	<u>FINS</u>
TYPE <u>CLEANABLE</u>	MATERIAL <u>304 S.S.</u>	MATERIAL <u>ALUM</u>
MATERIAL <u>304 S.S.</u>	OD <u>1 1/4"</u>	HEIGHT <u>5/8"</u>
NO. ROWS <u>6</u> PASSES <u>1</u>	NO./UNIT <u>360</u>	NO./IN. <u>11</u>
CORROSION ALLOWANCE <u>0</u>	TUBE LENGTH <u>48'-0"</u>	
SIZE INLET NOZZLE <u>5 x 144"</u>	TOTAL BARE TUBE SURFACE <u>5,654 SQ. FT.</u>	
SIZE OUTLET NOZZLE <u>2 @ 8"</u>	TOTAL EXTENDED SURFACE <u>116,628 SQ. FT.</u>	
NON-CONDENSIBLE OUTLET <u>2 @ 8"</u>		

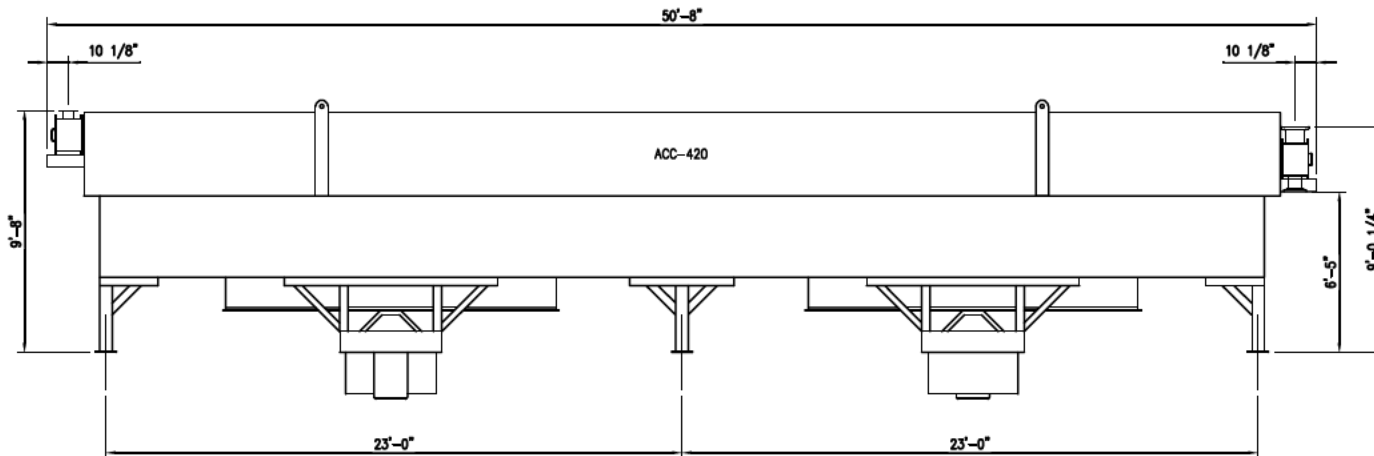
MECHANICAL EQUIPMENT

<u>FAN</u>	<u>DRIVER</u>
NO. <u>2</u>	TYPE <u>MOTOR</u>
BHP EA. <u>69.0</u> BHP TOTAL <u>138.0</u>	HP DRIVER <u>75</u>
DIAMETER <u>13'-0"</u> RPM <u>331</u>	RPM <u>1750</u>
NO. BLADES <u>8</u>	ENCLOSURE <u>TEFC</u>
BLADE MATERIAL <u>ALUMINUM</u>	VOLT <u>460</u> PHASE <u>3</u> CY <u>60</u>
HUB MATERIAL <u>ALUMINUM</u>	

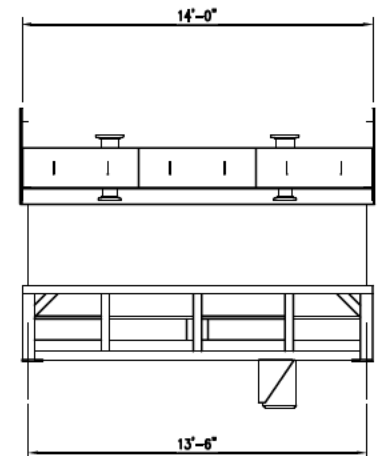
UNIT SHIPPING WEIGHT: 59,000 LBS.
 UNIT FLOODED WEIGHT: 70,363 LBS.



PLAN VIEW



SIDE ELEVATION



OUTLET END
 ELEVATION

**MODEL ACC-420 CONDENSER
 DARLING INGREDIENTS, INC.**

CANADA

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AC Corporation

Established 1935
 GREENSBORO, NORTH CAROLINA

Corporate Office - 301 Creek Ridge Rd. Greensboro, NC 27406 (336) 273-4472

DRAWN: JBW
 CHECKED:
 APPROVED:

DATE: 3/13/21
 ACAD NO. A8210141-01.dwg
 DWG. NO. A8210141-01