



EAAB

Please note: This document has been formatted for duplex (double sided) printing.

June 2007

**Section 9
Environmental Protection Act
R.S.O. 1990**

**Sample Application Package
for an Air & Noise Certificate of Approval**

PIBS 5987e

Protecting our environment.



Ontario

FOREWORD

This document has been produced by the Environmental Assessment and Approvals Branch as an example of a complete application submission for an Air & Noise Certificate of Approval. While every effort has been made to ensure the accuracy of the information contained in this document, it should not be construed as legal advice.

The following forms have been used in this sample application package:

- [Application for Approval \(Air & Noise\)](#)
- [Supporting Information Worksheet – Supplement to Application for Approval, EPA s.9](#)
- [Costs for EPA s.9 Applications, Supplement to Application for Approval](#)
- [Supporting Information for a Maximum Ground Level Concentration Acceptability Request for Compounds with no Ministry POI Limit – Supplement to Application for Approval, EPA s.9](#)
- [Noise Screening Process for s.9 Applications, Supplement to Application for Approval](#)
- [Emission Summary and Dispersion Modelling Report Checklist](#)

Instructions for completing these forms and additional information about Air & Noise Certificates of Approval is available in the following publications:

- [Green Facts: Certificates of Approval – Air & Noise](#)
- [Guide to Applying for Approval – Air & Noise](#)
- [Guide – Application Costs for Air Emissions, EPA s.9](#)
- [Procedure for Preparing an Emission Summary and Dispersion Modelling Report](#)

For more information about Certificates of Approval or to obtain an application package, please visit the Ministry of the Environment Internet site at <http://www.ene.gov.on.ca> or contact:

Ministry of the Environment
Environmental Assessment and Approvals Branch
2 St. Clair Ave W, Floor 12A
Toronto, ON M4V 1L5

Toll Free: 1-800-461-6290
Phone: 416-314-8001
Fax: 416-314-8452
Email: EAABGen@ene.gov.on.ca



Virginia Trust-Worthy
General Manager
Acme Inc.
123 Anywhere Street
Anytown, Ontario
N9N 1A1

February 19, 2007

Environmental Assessment and Approvals Branch
2 St Clair West, Floor 12A
Toronto, Ontario
M4V 1L5

Dear Sir or Madam:

Re: Application for a Certificate of Approval (Air), Acme Anytown Plant

Please find attached two copies of an application for a Certificate of Approval (Air) package including the required fee and complete with the following documentation:

- Application for Approval (Air & Noise)
- Attachment 1 - Supporting Information Checklist
- Attachment 2 - Costs for EPA s.9 Applications, Supplement to Application for Approval
- Attachment 3 – Supporting Information for a Maximum Ground Level Concentration Acceptability Request Supplement to Application for Approval, EPA S.9
- Attachment 4 – Noise Screening Process for S.9 Applications, Supplement for Approval
- Attachment 5 – Master Business Licence
- Attachment 6 – Emission Summary and Dispersion Modelling Report

Sincerely,

Virginia Trust-Worthy
General Manager

Enc.

Cc: Toronto District Office

VTW/sa

For Office Use Only			
Reference Number	Payment Received	Date (y/m/d)	Initials
	\$		

General Information and Instructions

General:

Information requested in this form is collected under the authority of the *Environmental Protection Act*, R.S.O. 1990 (EPA) and the *Environmental Bill of Rights*, C. 28, Statutes of Ontario, 1993, (EBR) and will be used to evaluate applications for approval under Section 9 of the EPA. This form must be completed with respect to all requirements identified in the Guidance Material listed below in order for it to be considered an application for approval. **INCOMPLETE APPLICATIONS WILL BE RETURNED TO THE APPLICANT.** Even if the application is accepted as complete, the Ministry of the Environment may require additional information during the technical review of the application.

Instructions:

- Applicants are responsible for ensuring that they complete the most recent application form.** When completing this form, please refer to the following Guidance Material: the "Guide to Applying for Approval (Air & Noise), Section 9, EPA" and the "Guide - Application Costs for Air Emissions, S. 9, EPA". Application forms and supporting documentation are available from the Environmental Assessment and Approvals Branch toll free at 1-800-461-6290 (locally at 416-314-8001), from your local District Office of the Ministry of the Environment, and in the "Publications" section of the Ministry of the Environment website at <http://www.ene.gov.on.ca/envision/gp/index.htm#PartAir>.
- Questions regarding completion and submission of this application should be directed to the Environmental Assessment and Approvals Branch of the Ministry of the Environment at the address below or to the local District Office which has jurisdiction over the area where the facility is located. A list of these District Offices is available on the Ministry of the Environment Internet site at <http://www.ene.gov.on.ca/envision/org/op.htm#Reg/Dist>.
- A complete application package consists of a completed, signed application form and all required supporting information required by O. Reg. 419/05, identified in this form and the Guidance Material.
- Three application packages must be submitted to the Ministry of the Environment. Two application packages, the original and a copy must be sent to:

Ministry of the Environment,
Director, Environmental Assessment and Approvals Branch,
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario, M4V 1L5
Phone: 416-314-8001
Toll Free: 1-800-461-6290
Email: EAABGen@ene.gov.on.ca

These application packages should include a cheque, money order or credit card payment, in Canadian funds, made payable to the *Ontario Minister of Finance* for the applicable application fee. A third copy of the application package must be sent to the local District Office which has jurisdiction over the area where the facility is located.

- Information contained in this application form is not considered confidential and will be made available to the public upon request. Information submitted as supporting information may be claimed as confidential but will be subject to the *Freedom of Information and Protection of Privacy Act* (FOIPPA) and the *EBR*. If you do not claim confidentiality at the time of submitting the information, the Ministry of the Environment may make the information available to the public without further notice to you. For more information, please refer to Section 4.9 of the "Guide to Applying for Approval (Air & Noise), Section 9, EPA".
- If the Applicant submits with the application a copy of their Master Business License (MBL) obtained from the Ministry of Government Services, the **shaded sections within this form do not need to be completed (provided the information required appears on the face of the MBL)**. For additional information on the MBL please refer to Section 4.1 of the "Guide to Applying for Approval (Air & Noise), Section 9, EPA".

1. Applicant Information (Owner of works/facility)

Applicant Name (legal name of individual or organization as evidenced by legal documents)		Business Identification Number
Acme Inc.		123456789
Business Name (the name under which the entity is operating or trading if different from the Applicant Name - also referred to as trade name)		
Applicant Type:		North American Industry Classification System (NAICS) Code
<input checked="" type="checkbox"/> Corporation	<input type="checkbox"/> Federal Government	336410 Aerospace Product and Parts Manufacturing
<input type="checkbox"/> Individual	<input type="checkbox"/> Municipal Government	
<input type="checkbox"/> Partnership	<input type="checkbox"/> Provincial Government	
<input type="checkbox"/> Sole Proprietor	<input type="checkbox"/> Other (describe):	
Business Activity Description (a description of the business endeavour, this may include products sold, services provided or machinery/equipment used, etc.)		
Acme Inc. produces coated metal products for use in the aviation industry. The main process consists of coating metal components with a solvent based coating. The metal parts are fabricated elsewhere; the operations at the facility are limited to the coating process.		

2. Applicant Physical Address

Civic Address- Street information (address that has civic numbering and street information includes street number, name, type and direction)		Unit Identifier (i.e. suite or apartment number)		
123 Anywhere Street				
Survey Address (used for a rural location specified for a subdivided township, an unsubdivided township or unsurveyed territory. Not required if Street Information is provided)				
Lot and Conc.: used to indicate location within a subdivided township and consists of a lot number and a concession number		Part and Reference: used to indicate location within an unsubdivided township or unsurveyed territory, and consists of a part and a reference plan number indicating the location within that plan. Attach copy of the plan		
Lot	Conc.	Part	Reference Plan	
Municipality/Unorganized Township	County/District	Province/State	Country	Postal Code
Anytown	Prosperous County	Ontario	Canada	N9N 1A1

3. Site Information - (location where activity/works applied for is to take place)

Is this an application for a mobile facility?		Site Name		MOE District Office	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Acme Anywhere Plant		Toronto District Office	
Address Information:					
Same as Applicant Physical Address? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If no, please provide site address information below)					
Site Address - Street information (address that has civic numbering and street information includes street number, name, type and direction)				Unit Identifier (i.e. suite or apartment number)	
Survey Address (used for a rural location specified for a subdivided township, an unsubdivided township or unsurveyed territory)					
Lot and Conc.: used to indicate location within a subdivided township and consists of a lot number and a concession number		Part and Reference: used to indicate location within an unsubdivided township or unsurveyed territory, and consists of a part and a reference plan number indicating the location within that plan. Attach copy of the plan			
Lot	Conc.	Part		Reference Plan	
Non Address Information (includes any additional information to clarify applicants' physical location)					
Municipality/Unorganized Township		County/District		Postal Code	
Geo Reference					
Map Datum	Zone	Accuracy Estimate	Geo Referencing Method	UTM Easting	UTM Northing
Is the Site located in an area of development control as defined by the Niagara Escarpment Planning & Development Act (NEPDA)?					
<input type="checkbox"/> Yes If yes, please attach a copy of the NEPDA permit for proposed activity/work					
<input checked="" type="checkbox"/> No					
Is the Site located on the Oak Ridges Moraine Conservation Area as defined by the Oak Ridges Moraine Conservation Plan (ORMCP), a regulation made under the Oak Ridges Moraine Conservation Act (ORMCA)?					
<input type="checkbox"/> Yes If yes, please attach proof of Municipal planning approval for the proposed activity/work					
<input checked="" type="checkbox"/> No					
Is the Applicant the operating authority?					
<input checked="" type="checkbox"/> Yes					
<input type="checkbox"/> No If no, please attach the operating authority name, address and phone number					
Is the Applicant the owner of the land (site)?					
<input checked="" type="checkbox"/> Yes					
<input type="checkbox"/> No If no, please attach the owner's name, address and a signed letter granting consent for the installation and operation of the facilities					
Has this facility and one or more adjacent facilities been deemed to be one property under s.4 of O. Reg. 419/05?					
<input type="checkbox"/> Yes If yes, please attach supporting information					
<input checked="" type="checkbox"/> No *Note: all sources from the adjacent facility must be included in the Emission Summary and Dispersion Modelling Report.					

4. Project Technical Information Contact

Name		Company		
Joe Consultant		P.E.S. Stack Inc.		
Address Information:				
Same as Applicant Physical Address? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If no, please provide technical information contact address information below)				
Civic Address - Street information (address that has civic numbering and street information includes street number, name, type and direction)		Unit Identifier (i.e. suite or apartment number)		
234 Other Street		Suite 1		
Delivery Designator:				
If signing authority mailing address is a Rural Route, Suburban Service, Mobile Route or General Delivery (i.e., RR#3)				
Municipality	Postal Station	Province/State	Country	Postal Code
Anytown		Ontario	Canada	N9K 2B2
Telephone Number (including area code & extension)		Fax Number (including area code)		E-mail Address
(905) 555 - 2345		(905) 555-2399		JoeConsultant@PES.com

5. Project Information

Type of Application:	
<input checked="" type="checkbox"/> New Certificate of Approval for this Facility	
Did construction of the facility begin after November 30, 2005? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Does the NAICS Code for the facility fall into Schedule 4 or 5 of O. Reg. 419/05? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Amendment to current Certificate of Approval	
<input checked="" type="checkbox"/> Basic Comprehensive Certificate of Approval	
<input type="checkbox"/> Consolidated Certificate of Approval	
Current Certificate of Approval Number	Current Certificate of Approval Date of Issue (yyyy/mm/dd)
Application Initiated by:	
<input checked="" type="checkbox"/> Proponent <input type="checkbox"/> Environmental Assessment and Approvals Branch <input type="checkbox"/> Provincial Officer Order (attach copy) <input type="checkbox"/> Other (specify): _____	
List all other environmental approvals/permits applied or received in relation to this project under the <i>Environmental Protection Act</i> , the <i>Ontario Water Resources Act</i> , the <i>Safe Drinking Water Act</i> , <i>Environmental Assessment Act</i> or any other related legislation. (Please attach a separate list if more space is required).	
Project Description Summary (If EBR is applicable, this summary will be used in the EBR posting notice)	
This proposal is for a Basic Comprehensive Certificate of Approval(Air) which is a single Certificate of Approval that includes the historically unapproved sources of emissions from the ACME Inc. coated metal products facility that produces up to 1,200,000 coated metal parts per year.	
The application includes all sources at the facility including the preparation area, coating operations, mixing tanks and supporting operations. Emissions to the environment include products of combustion and volatile organic compounds.	
Project Name (Project identifier to be used as a reference in correspondence)	
Acme Anytown Plant	
Project Schedule	
Estimated date for start of construction/installation (yyyy/mm/dd)	Estimated date for start of operation (yyyy/mm/dd)
1999/10/31	2000/04/01

6. O. Reg. 419/05 Requirements

Which of the following sections of O. Reg. 419/05 applies to the facility?	
<input checked="" type="checkbox"/> s.18 (Schedule 1) <input type="checkbox"/> s.19 (Schedule 2) <input type="checkbox"/> s.20 (Schedule 3)	
If s.20 of O. Reg. 419/05 applies to the facility, do all new sources of contaminant meet the Good Engineering Practice (GEP) stack height requirements of s.15?	
<input type="checkbox"/> Yes <input type="checkbox"/> No	
Has the facility been issued a notice or an order under s 7(1), 8(2), 10(2), 11(2), 13(2), 14(4), 17(3), 20(4) or 20(5)?	
<input type="checkbox"/> Yes If yes, please attach a copy of the notice, amended notice, revoked notice, order and/or additional supporting information	
<input checked="" type="checkbox"/> No	
Has a request for approval for an alteration of a Schedule 3 standard under s. 32 of O. Reg. 419/05 been made for this facility?	
<input type="checkbox"/> Yes If yes, please attach a copy of ministry acknowledgement letter (if available) or an overview of the request	
<input checked="" type="checkbox"/> No	
Do you exceed any s.30 Upper Risk Thresholds (Schedule 6)?	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please attach additional supporting information	

7. Other Air Approvals for Facility – Please attach a separate list if more space is required

Separate list attached? ☐ Yes ☒ No

List all other environmental approvals issued to this facility under the Section 9 of the <i>Environmental Protection Act</i> .	

8. Environmental Assessment Act (EAA) Requirements

Are the works for which this proposal is made subject to (or exempted from) the requirements of the EAA? ☐ Yes ☒ No

If "Yes," please check one of the following

☐ The works for which this application is made are exempt from the requirements of the EAA under:

☐ Section _____ of Ontario Regulation No. _____ or

☐ Declaration/Exemption Order Number _____

If Regulation, Declaration Order or Exemption Order does not refer directly to this facility, state in a covering letter or other document why it does apply to the facility – Please provide supporting information

☐ The works for which this application is made have fulfilled all of the requirements of the EAA through the completion of the Municipal Class EA process in accordance with the procedures set out in:

☐ Schedule A ☐ Schedule B ☐ Schedule C

If Schedule A, was the project planned in accordance with section A.2.9 – Integration with the *Planning Act* of the Class EA?

☐ Yes ☐ No

If Yes, please submit a copy of the summary required by section A.2.9.3 of the Class EA and a copy of the Planning Act notice.

If Schedule B or C of the Municipal Class EA, please submit a copy of the Notice of Completion.

Were Part II Order requests received? ☐ Yes ☐ No

If Yes, please submit a copy of the Minister's decision letter.

☐ The works for which this application is made have fulfilled all of the requirements of the EAA through the completion of the requirements of another class EA process:

Name of Class EA: _____

Schedule/Group/Category (if applicable): _____

If applicable, please submit a copy of the Notice of Completion.

Were Part II Order requests received? ☐ Yes ☐ No

If Yes, please submit a copy of the Minister's decision letter.

☐ The works for which this application is made have fulfilled all of the requirements for the Environmental Screening Process pursuant to O. Reg. 116/01 of the EAA through:

☐ Completion of an Environmental Screening.

☐ Completion of an Environmental Review

Please submit the Statement of Completion, and indicate if any Elevation Request(s) were received.

If Elevation Request(s) were received, please submit a copy of the Director's decision letter.

If the Director's decision was appealed to the Minister, please submit a copy of the Minister's decision letter.

☐ The works for which this application is made have fulfilled all of the requirements of the EAA through the preparation of an environmental assessment.

Please submit a copy of the signed Notice of Approval.

Was this undertaking designated subject to the EAA by regulation? ☐ Yes ☐ No

If yes, please indicate the regulation: _____

9. Environmental Bill of Rights Requirements (EBR) Requirements

Is this a proposal for a prescribed instrument under EBR? ☒ Yes ☐ No

If "Yes", is this proposal exempted from EBR requirements? ☐ Yes ☒ No

If "Yes," please check one of the following

☐ This proposal has been considered in a substantially equivalent process or by a decision of a tribunal. **Please provide supporting information**

☐ This proposal is for an amendment to or revocation of an existing Certificate of Approval that is not environmentally significant. **Please provide supporting information**

☐ This proposal is for an emergency situation. **Please provide supporting information**

☐ This proposal has been subject to or exempted from EAA Requirements. **Please provide supporting information**

10. Additional Public Consultation/Notification

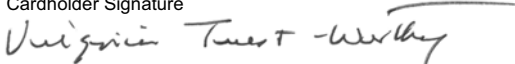
Separate list attached? ☐ Yes ☒ No

Specify all public consultation/notification (such as public hearings, notification of First Nations, request for an Alternative Standard under s.32 of O. Reg. 419/05, etc.) related to the project that have been completed or are in the process of being completed. Please attach a separate list describing each of these consultation activities, the results achieved, and planned future consultation activities.

11. List of Attachments - This is a list of all supporting information to this application and is subject to the Freedom of Information and Privacy Protection Act and the Environmental Bill of Rights.

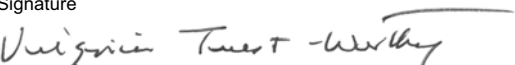
Attachment	Attached	Reference	Can be disclosed
Information Required by Application Form			
Supporting Information Worksheet - Supplement to Application for Approval, EPA S.9 (PIBS 4873)	<input checked="" type="checkbox"/> Yes	Attachment 1, Supporting Info.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Costs for EPA S.9 Applications - Supplement to Application for Approval (PIBS 4108)	<input checked="" type="checkbox"/> Yes	Attachment 2, Cost Sheet	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Application Fee (cheque or money order attached or credit card information provided)	<input checked="" type="checkbox"/> Yes		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Information Supporting Compliance with O. Reg. 419/05			
Emission Summary and Dispersion Modelling (ESDM) Report prepared in accordance with s.22 of O. Reg. 419/05 (including signed checklist - PIBS 5357e)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If no, indicate why: <input type="checkbox"/> Minor Amendment (no technical review) <input type="checkbox"/> Equipment Subject to Streamlined Review <input type="checkbox"/> Subsurface Approval	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Supporting Information for a Maximum Ground Level Concentration Acceptability Request for Compounds with no Ministry POI Limit - Supplement to Application for Approval, EPA S.9 (PIBS 4872)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Attachment 3, Max GLC	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Information Supporting Compliance with Noise and Vibration Guidelines			
Noise Screening Process for S.9 Applications - Supplement to Application for Approval (PIBS 4871)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Attachment 4, Noise	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Does the Equipment/Facility meet minimum separation distance?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Attachment 4, Noise	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If the Equipment/Facility does not meet minimum separation distance, then attach:			
1. Acoustic Assessment Report including signed checklist (PIBS 5356e)	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Vibration Assessment Report	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
Other Information Supporting Compliance With Applicable Regulations and Guidelines or to Describe the Project (include separate list if required)			
	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No

12. Payment Information

Amount Enclosed: \$ 5,700 Please attach completed "Costs for EPA s.9 Applications - Supplement to Application for Approval" (PIBS 4108).		
Method of Payment <input type="checkbox"/> Cheque <input type="checkbox"/> Money Order <input checked="" type="checkbox"/> VISA <input type="checkbox"/> MasterCard <input type="checkbox"/> American Express		
Credit Card Information (if paying by VISA, MasterCard or American Express)*		
Name on Card (please print) Virginia Trust-Worthy	Credit Card Number 4567 6541 2345 4321	Expiry Date (m/y) 12/08
Cardholder Signature 		Date (y/m/d) 2007/02/19

*NOTE: credit card accepted for payments UNDER \$10,000.00 only.

13. Statement of Applicant

I, the undersigned hereby declare that, to the best of my knowledge:				
<ul style="list-style-type: none"> The information contained herein and the information submitted in support of this application is complete and accurate in every way and I am aware of the penalties against providing false information as per s.184(2) of the <i>Environmental Protection Act</i>. The Project Technical Information Contact identified in section 5 of this form is authorized to act on my behalf for the purpose of obtaining approval under Section 9 of the EPA for the equipment/processes identified herein. I have used the most recent application form (as obtained from the Ministry of the Environment Internet site at http://www.ene.gov.on.ca/envision/gp/index.htm#PartAir or the Environmental Assessment and Approvals Branch at 1-800-461-6290) and I have included all necessary information required by O. Reg. 419/05, identified on this form and in the Guidance Material. 				
Name of Signing Authority (please print) Virginia Trust-Worthy		Title General Manager		
Telephone Number (including area code & extension) (905) 555 - 1985		Fax Number (including area code) (905) 555 - 1967		E-mail Address VTrust@acmeinc.com
Signature 		Date (y/m/d) 2007/02/19		
Address Information:				
Same as Applicant Physical Address? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If no, please provide signing authority mailing address information below)				
Civic Address - Street information (address that has civic numbering and street information includes street number, name, type and direction)				Unit Identifier (i.e. suite or apartment number)
Delivery Designator: If signing authority mailing address is a Rural Route, Suburban Service, Mobile Route or General Delivery (i.e., RR#3) _____				
Municipality	Postal Station	Province/State	Country	Postal Code

Attachment 1

Supporting Information Checklist

SUPPORTING INFORMATION WORKSHEET SUPPLEMENT TO APPLICATION FOR APPROVAL, EPA S.9

This document lists the attachments to the Section 9 Application Form that may be required from an applicant. This worksheet is intended to assist applicants in completing the Application Form and should be read in conjunction with the Guide to Applying for Approval (Air and Noise) dated February, 2005.

This worksheet must be attached to a Section 9 Application Form to be considered complete

	Attachment	Guide to Applying Reference	Required if...	Included	Reference	Confidential
1.	Proof of Legal Name of Applicant	Section 4.1	Always Required unless Master Business Licence is submitted	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		Not Applicable
2.	Copy of Master Business Licence	Section 4.2	Applicant is an Ontario Company and wishes to simplify the application process	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Attach. 5	Not Applicable
3.	Legal Survey	Section 4.3	If survey address is provided	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
4.	Copy of NEDPA Permit	Section 4.3	Facility is within an area of development control as defined by the Niagara Escarpment Planning and Development Act	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
5.	Copy of Municipal Planning Approval (ORMCA)	Section 4.3	Facility is within the Oak Ridges Moraine Conservation Area	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
6.	Name, Address and Phone Number of the Operating Authority	Section 4.3	Equipment will be operated not by the applicant but by an Operating Authority	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
7.	Name, Address and consent of the land/site owner for the installation/construction and operation of the equipment/facility	Section 4.3	Applicant is not the owner of the site where the facility is located	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No

	Attachment	Guide to Applying Reference	Required if...	Included	Reference	Confidential
8.	Copy of current Certificate of Approval	Section 4.5	Application is for an amendment to a current CofA	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		Not Applicable
9.	List of all environmental approvals/permits applied for relating to this project or received in relation to this project.	Section 4.5	Other environmental approvals/permits have been applied for or issued under the EPA or OWRA in relation to this project only	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		Not Applicable
10.	Copy of Provincial Officer's Order requiring submission of application	Section 4.5	Application is a result of a Provincial Officer's Order	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		Not Applicable
11.	List of all approvals issued to this facility under Section 9 of the <i>Environmental Protection Act</i>	Section 4.6	Previous Section 9 approvals have been issued to the facility	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		Not Applicable
12.	Supporting information that proposal is not a Prescribed instrument under the EBR	Section 4.6	Application meets the requirements of O. Reg 681/94	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
13.	Supporting information relating to exemption from the public participation requirements of the <i>Environmental Bill of Rights</i> .	Section 4.7	Applicant is requesting that the proposal is exempt from posting on the Environmental Registry	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
14.	Supporting information relating to exemption from or fulfilment of requirements under the <i>Environmental Assessment Act</i> .	Section 4.7	Application is part of an undertaking subject to the EAA	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
15.	List describing public consultation activities related to this project	Section 4.7,8	Applicant is involved in any public consultation / notification activities in addition to EBR / EAA	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
16.	Application Fee	Section 4.10	Always Required	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A		Not Applicable
17.	Financial Assurance	Section 2	If The Section 9 Director determines that Financial Assurance is necessary based on the nature of the Application (Waste Disposal Site or Remediation for example)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No
18.	Applicant Fee Worksheet	Section 4.9	Always Required	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A		Not Applicable

Please note: the release of information contained in application forms and documentation submitted in support of applications for approval is subject to the provisions of the *Freedom of Information and Protection of Privacy Act*. This Act defines what may and may not be disclosed to the public, and is used to assess all requests for information contained in the documents on file with an application for approval.

The information submitted with an application for approval may also be subject to the *Environmental Bill of Rights*. In those situations, the application and the associated non-confidential supporting documentation is made available for review by members of the public.

The applicants should therefore identify all documents as noted above which are to be considered confidential and must provide detailed evidence in support of this claim. This evidence will be one of the factors the ministry would consider when making a decision regarding disclosure of specific documents on file.

Attachment 2

Costs for EPA s.9 Applications, Supplement to Application for Approval

Attachment 2

Costs for EPA s.9 Applications, Supplement to Application for Approval

The following table references the sources and groups of sources at the facility that fall under the cost categories listed in the attached cost sheet.

Cost Category	Category Description	Cost	Comments	Source Information	
				Source ID	Source Description
N/A	Administration	\$ 200.00		N/A	N/A
1.1.1	Combustion equipment	\$ 400.00		S-10	Natural Gas Combustion and Heating Equipment
1.1.2	Storage tanks	\$ 400.00		S-8	Coating Storage Tanks
1.1.3	Welding Operations that use a maximum of 10 kilograms of welding rod per hour	\$ 400.00		S-5	Maintenance Shop
1.3.1	Equipment with a flow rate less than 1.5 m³/second	\$ 400.00	Grouped with other Negligible Sources	S-3	R&D Area
				S-9	Coating Mixing Tank
				S-6	Nitrogen Blanket Tank
				S-4	Repair Booth
1.3.2	Equipment with a flow rate greater than 1.5 m³/second	\$ 1,200.00		S-1	Main Production Line
1.3.2	Equipment with a flow rate greater than 1.5 m³/second	\$ 1,200.00		S-2	Custom Production Area
1.3.2	Equipment with a flow rate greater than 1.5 m³/second	\$ 1,200.00		S-7	Preparation Booth
1.3.3	Contaminants with no ministry POI limits	\$ 300.00		N/A	N/A
N/A	Emission Summary and Dispersion Modelling Report Review (Table 2)	N/A	This application is for existing sources not previously approved, therefore, the fee for ESDM Review under Table 2 "Emission Summary and Dispersion Modelling Report Review" is not required as indicated in the ministry document "Costs for EPS s.9 Applications, Supplement to Application for Approval" dated February 2005.	N/A	N/A
N/A	Noise Assessment Review (Table 3)	N/A	Noise Assessment Review not required.	N/A	N/A
Total Application Fee		\$ 5,700.00			

N/A - Not Applicable

COSTS FOR EPA s.9 APPLICATIONS SUPPLEMENT TO APPLICATION FOR APPROVAL

Information requested in this form is collected under the authority of the Environmental Protection Act, R.S.O. 1990 (EPA) and the Environmental Bill of Rights, c. 28, Statutes of Ontario, 1993, (EBR) and will be used to evaluate applications for approval under Section 9 of the EPA. This form is a supplement to the Application for Approval (Air & Noise) and should be submitted with all applications for approval under Section 9 of the EPA.

O.Reg. 363/98 "Fees – Certificates of Approval" requires applicants for a certificate of approval under Section 9 of the EPA to pay a fee at the time of submitting the application. This fee must be calculated in accordance with the Fees Regulation. **Applications that do not include the correct fee amount will not be processed by the EAAB.** This form is intended to assist applicants in calculating the correct fee amount in accordance with the Fees Regulation. For instructions/assistance completing this form, please refer to the publication titled: "Guide: Application Costs for Air Emissions, s.9 Environmental Protection Act". This form and associated publications are available on the Ministry of the Environment web site at <http://www.ene.gov.on.ca/envision/gp/index.htm#PartAir> or by contacting the Environmental Assessment and Approvals Branch at 1-800-461-6290 or (416) 314-8001.

Company Name Acme Inc.	Site Name Acme Anytown Plant
Site Address - Street information (includes street number, name, type and direction) 123 Anywhere Street	Unit Identifier (unit, suite, apt, etc)
Survey Address (used for a rural location specified for a subdivided township, an unsubdivided township or unsurveyed territory)	
Non Address Information (includes any additional information to clarify clients' physical location)	
Municipality/Unorganized Township Anytown	County/District Prosperous County
Postal Code N9N 1A1	

Application Type: Indicate the applicable aspect(s) of the application and complete the corresponding section(s) of this form.

- ☒ Application that requires technical review (Section 1)
Applications for a Greenfield facility, an existing facility that does not have any approvals, amendment to an existing CofA to add new equipment or to consolidate existing equipment into one CofA or for a Basic Comprehensive Certificate of Approval
- ☐ Revocation of an existing approval that requires technical review (Section 2)
This application is to revoke an existing approval or condition on a certificate of approval that requires a technical review such as a groundwater remediation system, air pollution control equipment (cyclone, dust collector); noise control measures (silencer, barrier)
- ☐ Administrative amendment of an existing approval (Section 3)
This application is for a minor amendment to an existing approval such as a minor technical correction, etc, that does not require a technical review
- ☐ Fee exempted amendment or revocation of an existing approval that does not require technical review (Section 4)
This application is required by a condition on a Certificate of Approval, or to revoke a CofA for equipment/facility that is no longer in operation and does not require technical review

Note: If you are seeking a Preliminary Review as defined by the Fee Regulation please contact the EAAB to discuss prior to proceeding with the application.

SECTION 1: Application that Requires Technical Review
Complete tables 1, 2 & 3 and enter your information in the summary table below.

(√)		Description	Cost
<input checked="" type="checkbox"/>	A	Administrative processing (always required for all applications)	\$ 200
<input checked="" type="checkbox"/>	B	Fixed Cost Review for Equipment (Table 1)	\$ 5500
<input type="checkbox"/>	C	Emission Summary and Dispersion Modelling Report Review (Table 2)	\$
<input type="checkbox"/>	D	Noise Assessment Review (Table 3)	\$
		TOTAL COST:	\$ 5700

TABLE 1: Fixed Cost Review for Equipment

This table is to be used for new applications or for amendments or revocation to an existing approval. Applicants must identify all equipment that is the subject of the application and include the equipment in the appropriate category on the table. Sections used should be indicated in the left hand column. Equipment that has been previously approved does not have to be included on the table provided that the existing approved equipment is not being modified by the application.

Table 1.1 Equipment subject to Site-wide Fees					
(√)		Description	Equipment Specification	Cost	Applicable Fee
<input checked="" type="checkbox"/>	1.1.1	Combustion Equipment that uses natural gas, propane, no. 2 oil, landfill gas or sewage treatment gas for fuel for the purpose of providing comfort heating or emergency power, producing hot water or steam, or heating material in a system that does not discharge to the atmosphere	Total Heat input of all units ≤ 50,000,000 kJ/hr	\$ 400	\$ 400
<input checked="" type="checkbox"/>	1.1.2	Storage tanks	N/A	\$ 400	\$ 400
<input checked="" type="checkbox"/>	1.1.3	Welding operations that use a maximum of 10 kilograms of welding rod per hour	N/A	\$ 400	\$ 400
<input type="checkbox"/>	1.1.4	The application is for an amendment to an existing approval which will not result in an increase in the discharge of any contaminant that was reviewed by the Director for the purpose of issuing the existing certificate	N/A	\$400	\$

Applicable Fee is based on the type of equipment, if the equipment does not meet the description or specification then use table 1.3

Table 1.2 Equipment Subject to Individual Fees						
(✓)	Description		Quantity of Equipment		Cost	Applicable Fee
			Formula to Calculate A	A		
<input type="checkbox"/>	1.2.1	Combustion Equipment that uses waste derived fuel for the purpose of providing comfort heating, burning ≤ 15 litres per hour	# of pieces of combustion equipment		x \$400 =	\$
<input type="checkbox"/>	1.2.2	Heat cleaning ovens used for parts cleaning, and associated parts washers or degreasing equipment, other than solvent degreasing equipment	# of heat cleaning ovens		x \$400 =	\$
<input type="checkbox"/>	1.2.3	Cooling towers	# of cooling towers divided by two, rounded up to the next whole number		x \$400 =	\$
<input type="checkbox"/>	1.2.4	Equipment used to control emissions of contaminants, other than a fume incinerator.	# of pieces of pollution control equipment		x \$400 =	\$
<input type="checkbox"/>	1.2.5	Laboratory fume hoods	# of laboratory fume hoods divided by 5, rounded up to the next whole number		x \$400 =	\$
<input type="checkbox"/>	1.2.6	Paint spray booths and associated equipment that have a design capacity of up to 8 litres per hour of paint	# of paint spray booths		x \$400 =	\$
<input type="checkbox"/>	1.2.7	Grain dryers	# of grain dryers		x \$400 =	\$

Applicable Fee is calculated based on the quantity of equipment, calculated using the formula specific for the equipment. Note the formula provides whole numbers only.

Table 1.3 Equipment not otherwise specified in the table					
(√)	Description		Number of Sources	Cost	Applicable Fee
<input checked="" type="checkbox"/>	1.3.1	Equipment with a flow rate of less than or equal to 1.5 m ³ /second	1	x \$ 400 =	\$ 400
<input checked="" type="checkbox"/>	1.3.2	Equipment with a flow rate of greater than 1.5 m ³ /second	3	x \$1,200 =	\$ 3600
<input checked="" type="checkbox"/>	1.3.3	If one or more of the contaminants to which the application relates is not represented in the Ministry of the Environment publication titled "Summary of Point Impingement Standards, Point of Impingement Guidelines and Ambient Air Quality Criteria (AAQCs)" dated, September 2001 as amended from time to time.	N/A	\$300	\$ 300
TOTAL COST TABLE 1					\$ 5500

Equipment (any plant, structure, apparatus, mechanism or thing that will discharge air and contaminants) that is the subject of the application that is not directly specified by Table 1.1 or 1.2 must be placed in one of the two categories in Table 1.3.

For equipment contained in this section of the table, multiple points of emission which satisfy specifically defined conditions of similarity will be considered equivalent to a single source when determining the application fee for a Certificate of Approval (Air).

The term "source" is defined in *Ontario Reg. 363/98, Fees – Certificates of Approval* as follows:

"source" means an individual point of emission or a distinct process or area from which emissions may originate, and,

- (a) if more than one stack or vent arises from a common process, that process is a source and the individual points or emission are not sources, and
- (b) if two or more separate processes, each of which discharges a distinct mixture of contaminants, are discharged to a common stack, each of the separate processes is a source.

Points of emission are considered "similar" if they satisfy the following conditions:

- (a) equivalent process activity;
- (b) common contaminant emissions;
- (c) emissions estimates are calculated using equivalent methods or formulas (with an allowance for modified process parameters); and
- (d) dispersion calculations are performed according to equivalent methods (with an allowance for modified process parameters) and considering equivalent Points of Impingement.

TABLE 2: Emission Summary and Dispersion Modelling Report Review

This table is to be used for new equipment applications at existing facilities or for amendments to existing approvals. Applicants must identify the number of sources described in the ESDM Report with contaminants common to the equipment forming the subject of the application to determine the cost as outlined in the table. Sources that have been approved and do not emit common contaminants do not have to be included in the determination of the number of sources.

(√)	Number of Sources	Previously Reviewed?	Cost
<input type="checkbox"/>	5 or less	No	\$ 0
<input type="checkbox"/>		Yes	\$ 0
<input type="checkbox"/>	6 to 10	No	\$ 1,000
<input type="checkbox"/>		Yes	\$ 800
<input type="checkbox"/>	11 to 20	No	\$ 2,000
<input type="checkbox"/>		Yes	\$ 1,600
<input type="checkbox"/>	More than 20	No	\$ 3,000
<input type="checkbox"/>		Yes	\$ 2,400
TOTAL COST TABLE 2			\$

A "source" may include multiple points of emission, provided the points of emission are "similar".

Points of emission are considered "similar" if they satisfy the following conditions:

- (a) equivalent process activity;
- (b) common contaminant emissions;
- (c) emissions estimates are based on equivalent methods or formulas (with an allowance for modified process parameters); and
- (d) dispersion calculations are performed according to equivalent methods (with an allowance for modified process parameters) and considering equivalent Points of Impingement

When the ESDM Report is only for new sources, not previously approved, there is no cost for this review; it is included in the fixed cost for the particular discharge or equipment calculated under Table 1.

An ESDM Report may be considered previously reviewed when the equipment specified in the ESDM Report has been used to obtain a Certificate of Approval (Air) for that equipment in the past.

TABLE 3: Noise Assessment Review

This table is to be used for new applications or for amendments or revocation to an existing approval. Applicants must complete the Noise Screening Procedure included as an appendix in the ministry Document "Guide to Applying for Approval (Air and Noise)" dated January, 2005. If an applicant meets the screening requirements then no fee is required under this table. If the applicant does not meet the screening requirements and an Acoustic Assessment Report is required then the Applicants must identify all equipment that is included as a noise source in the Acoustic Assessment Report in the appropriate category on the following table. Sections used should be indicated within the left hand column. Equipment that has been previously approved does not have to be included on the table provided that the existing approved equipment is not being modified by the application.

Table 3.1 Equipment Subject to Individual Fees					
(✓)	Description		Quantity of Equipment		Cost
			Formula to Calculate A	A	
<input type="checkbox"/>	3.1.1	Arc Furnaces	# of pieces		x \$2,250 = \$
<input type="checkbox"/>	3.1.2	Asphalt Plants	# of pieces		x \$2,250 = \$
<input type="checkbox"/>	3.1.3	Blow Down Devices	# of pieces		x \$2,250 = \$
<input type="checkbox"/>	3.1.4	Co-generation Facilities	# of pieces		x \$2,250 = \$
<input type="checkbox"/>	3.1.5	Crushing Operations	# of pieces		x \$2,250 = \$
<input type="checkbox"/>	3.1.6	Flares	# of pieces		x \$2,250 = \$
<input type="checkbox"/>	3.1.7	Gas Turbines	# of pieces		x \$2,250 = \$
<input type="checkbox"/>	3.1.8	Pressure Blowers or Large Induced Draft Fans (flow rate > 47m ³ /second or static pressure > 1.25 kilopascals)	# of pieces		x \$2,250 = \$

Table 3.2 Equipment Not Otherwise Specified in the Table					
(√)	Description		First 5 Pieces of Equipment	Additional Equipment	Cost
<input type="checkbox"/>	3.2.1	Equipment that has not previously been reviewed by the Section 9 Director in connection with an application for a certificate of approval with respect to the facility	\$400	\$100 x _____	\$
<input type="checkbox"/>	3.2.2	Equipment is identical to equipment for which a noise assessment was previously reviewed by the Section 9 Director in connection with an application for a certificate of approval with respect to the facility	\$200	\$50 x _____	\$

TOTAL COST TABLE 3					\$
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SECTION 2: Revocation of an Existing Approval that Requires Technical Review
Complete tables 1, 2 & 3 and enter your information in the summary table below

(√)		Category	Cost
<input type="checkbox"/>	A	Administrative processing (always required for all applications)	\$ 200
<input type="checkbox"/>	B	Fixed Cost Review for Equipment (Table 1)	\$
<input type="checkbox"/>	C	Emission Summary and Dispersion Modelling Report Review (Table 2)	\$
<input type="checkbox"/>	D	Noise Assessment Review (Table 3)	\$
		TOTAL COST:	\$

SECTION 3: Administrative Amendment of an Existing Approval

(√)	Description	Cost
<input type="checkbox"/>	Administrative amendment (no technical review involved)	\$ 100
	TOTAL COST:	\$

SECTION 4: Fee Exempted Amendment or Revocation of an Existing Approval that does not require technical review

(√)	Description	Cost
<input type="checkbox"/>	Administrative revocation (no technical review involved)	\$ 0
<input type="checkbox"/>	Any revocation requested as a result of requirements imposed by conditions of an existing approval	\$ 0
<input type="checkbox"/>	Any amendment requested as a result of requirements imposed by conditions of an existing approval	\$ 0
	TOTAL COST:	\$

Attachment 3

Supporting Information for a Maximum Ground Level Concentration Acceptability Request Supplement to Application for Approval, EPA s.9

SUPPORTING INFORMATION FOR A MAXIMUM GROUND LEVEL CONCENTRATION ACCEPTABILITY REQUEST FOR COMPOUNDS WITH NO MINISTRY POI LIMIT SUPPLEMENT TO APPLICATION FOR APPROVAL, EPA S.9

This form “Contaminants with no Ministry POI Limits Summary Table” is to be completed by applicants when a contaminant with no Ministry POI Limit is identified as part of an Emission Summary and Dispersion Modelling (ESDM) Report. Environmental Assessment and Approval Branch (EAAB) staff will forward the completed Table as part of a Maximum Ground Level Concentration (GLC) Acceptability Request to the Standards Development Branch (SDB). For further information on the Maximum GLC Acceptability Request process please see the Guide to Applying for Approval (Air and Noise) dated February, 2005.

*An application for a Certificate of Approval will not be recommended for approval until SDB indicates that the concentration at POI proposed in the application is acceptable and is not likely to cause an adverse effect. **The EAAB requires that the applicant complete the form.***

INSTRUCTIONS

Applicants must complete the Table as applicable and attach the required supporting information as outlined below. The source for the majority of this information will be the ESDM Report or in the Application Form. Applicants are required to reproduce this information as part of the Maximum GLC Acceptability Request process and attach the information to the form so that the Table and supporting information can be forwarded to SDB. References to the ESDM Report or Application Form are not acceptable.

Applicants are requested to include at least one copy of the Table and supporting information in an unbound section of the application to ease EAAB's forwarding of the request to SDB.

1. Completing Contaminants with no Ministry POI Limits Summary Table

The following information must be included on the Contaminants with no Ministry POI Limits Summary Table:

- The chemical name for each contaminant with no Ministry POI Limit identified in the ESDM Report. Standard nomenclature should be provided and the use of abbreviations or trade names should be minimized.
- The CAS number for each contaminant identified. The Chemical Abstracts Services (CAS) number is a unique identifier for a chemical. The following web sites may provide a convenient way to obtain specific CAS numbers:
<http://www.chemfinder.com>
<http://webbook.nist.gov/chemistry> - Scroll down to Search Options
<http://www.toxnet.nlm.nih.gov> - Click on ChemIDplus
- The Maximum half-hour aggregate emission rate, expressed in grams per second, for each contaminant identified. The emission rate must consider all sources for the contaminant from

the facility and be calculated using the Maximum Emission Rate Scenario provided in the ESDM Report.

- The nature of the emission for each contaminant identified whether the emission is continuous or intermittent. Continuous emissions are defined as processes that have little variability over a shift or 24 hour period such as painting lines or continuous process reactors. Conversely, intermittent process have significant variability in the operating schedule and resultant emission rates such as paint spray booths that require significant step time or batch reactors.
- The predicted maximum half hour POI concentration, expressed in micrograms per cubic metre ($\mu\text{g}/\text{m}^3$) for each contaminant identified. This includes a POI concentration calculated using the models outlined in Reg 346. Other models may be considered on a case-by-case basis.

2. Supporting Information

Information should be attached to the Form to provide additional information on the contaminants with no Ministry POI Limits and the facility as described below:

- Information that was used to identify the contaminant at the facility. This information may include but not be limited to:
 - a copy of the MSDS from the product identifying the contaminant(s) (if available);
 - the Emission Factor used, with proper references, to calculate the emission rate for the contaminant(s);
 - Source Assessment Testing results indicating the presence of the contaminant(s);
 - print outs from chemical properties services or references such as www.ccinfoweb.ccohs.ca or other sources;
 - any other information used by the applicant to identify the contaminant(s).
- Scaled Area Location Plan indicating the location of the facility, the facility property line, all buildings on the facility, all local roads and features of the neighbourhood for the area surrounding the facility. The Scaled Area Location Plan may be the same figure required by the Noise Screening Process (PIBS 4871) outlined in the Guide to Applying for Approval (Air and Noise) dated February, 2005.
- Information on the main Process(es) that give rise and any control equipment used to reduce the emission of each contaminant identified and any information on the handling guidelines and/or Codes of Practice that are used to control the emission for each contaminant identified if applicable. Codes of Practice followed that are recommended by a business or government organization should be specifically referenced.

Contaminants with no MOE POI Limits Summary Table

For Office Use Only		
Reference #	Reviewer	Contact #

Company Name Acme Inc.	Site Name Acme Anytown Plant	North American Industry Classification System (NAICS) 336410 Aerospace Product and Parts Manufacturing
Site Address - Street information (applies to an address that has civic numbering and street information - includes street number, name, type and direction) 123 Anywhere St.		Unit Identifier (identifies type of unit, such as suite & number)
Survey Address (used for a rural location specified for a subdivided township, an unsubdivided township or unsurveyed territory)		
Non Address Information (includes any additional information to clarify clients' physical location)		
Municipality/Unorganized Township Anytown	County/District Ontario	Postal Code N9N 1A1

☐ Scaled Area Location Plan Attached

Contaminant ^(a,b,c)	CAS ^(d) Number	Maximum ½ Hour Emission Rate (g/s)	Emission Type Continuous (C) Intermittent (I)	Predicted Maximum ½ Hour Average POI ^(e) Concentration (ug/m ³)	Information on Contaminant (MSDS) Attached	Additional Supporting Information Attached to Form	For Office Use Only
1. Amyl Alcohol	71-41-0	0.618	1	125	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. n Propoxypropanol	1569-01-3	0.648	1	131	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. 2 Methylbutyl Alcohol	137-32-6	0.35	1	71	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.					<input type="checkbox"/>	<input type="checkbox"/>	
5.					<input type="checkbox"/>	<input type="checkbox"/>	
6.					<input type="checkbox"/>	<input type="checkbox"/>	
7.					<input type="checkbox"/>	<input type="checkbox"/>	
8.					<input type="checkbox"/>	<input type="checkbox"/>	
9.					<input type="checkbox"/>	<input type="checkbox"/>	
10.					<input type="checkbox"/>	<input type="checkbox"/>	
11.					<input type="checkbox"/>	<input type="checkbox"/>	
12.					<input type="checkbox"/>	<input type="checkbox"/>	
13.					<input type="checkbox"/>	<input type="checkbox"/>	

Notes:

(a) Proper Chemical Name should be given (Abbreviations, acronyms, numeric codes, trade names and mixtures NOT ACCEPTABLE).

(b) All chemicals associated with the same process/operation. should be grouped together.

(c) If complete speciation of a mixture is not provided, the unspecified fraction will be assumed to be the most toxic compound, consistent with the available description.

(d) CAS Number : Chemical Abstracts Services Number (UNIQUE Identifier for a chemical)

(e) POI Concentration : Point of Impingement Concentration

“1.3 Description of Products and Raw Material

The Facility produces coated metal parts. There are two production areas at the Facility: the main production booth and a smaller custom production area. There is also a research and development operation that has a small coating operation.

The coating is a resin based mixture coating containing volatile organic compounds. The coating is applied to the parts using a dip tank technique. Prior to being dipped the metal parts are wiped with a solvent mixture in a preparation booth.

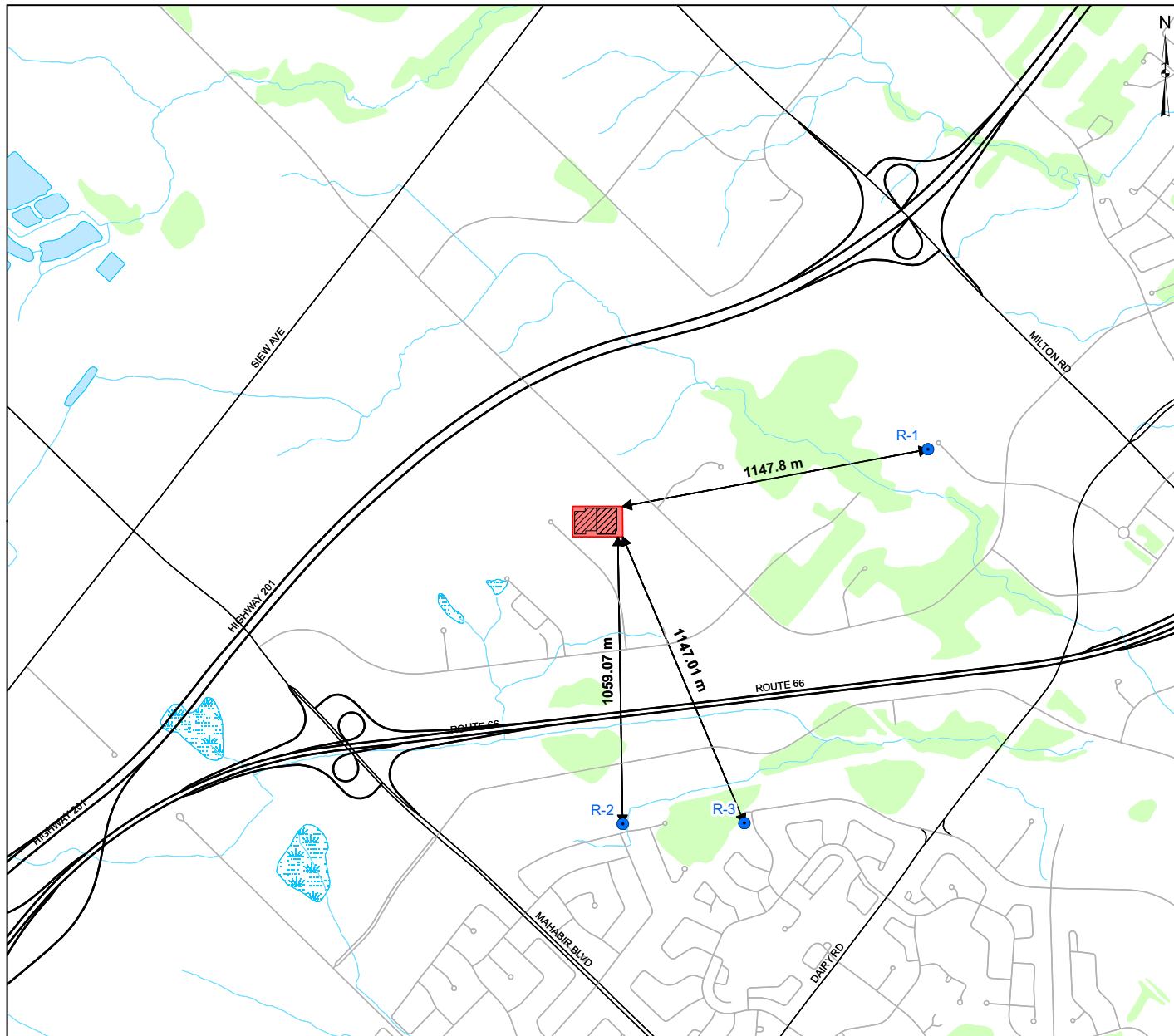
The coating is received and loaded into a storage tank. When a new batch is needed the coating is pumped in a closed-looped system to a mixing tank where small amounts of additives are blended into the batch. The batch is then pumped to a tank which is indirectly heated by a thermal oil circuit from a natural gas fired boiler. Before the batch is heated the tank is sealed and nitrogen gas is pumped in to a pressure of 1.5 atmospheres. The tank is then heated until the mixture reaches a temperature of 130 degrees Celsius. The tank is then vented and the mixture is pumped to the coating tank.

There are also some supporting operations at the Facility, namely: natural gas fired heating and ventilating equipment, a natural gas fired boiler to heat the thermal oil and a maintenance area with some minor welding. “

and

“1.5 Operating Schedule

The Facility operates from 8:30 am to 5:30 pm, seven days a week, up to 50 weeks per year. The Facility operates from 8:30 am to 5:30 pm, seven days a week, up to 50 weeks per year. The various production processes operate up to eight hours a day.”



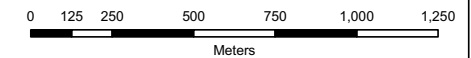
LEGEND

- Noise Receptor
- Highway
- Major Road
- Local Road
- Watercourse
- Waterbody
- Wetland
- Woodlot
- Site Location
- Property Boundary

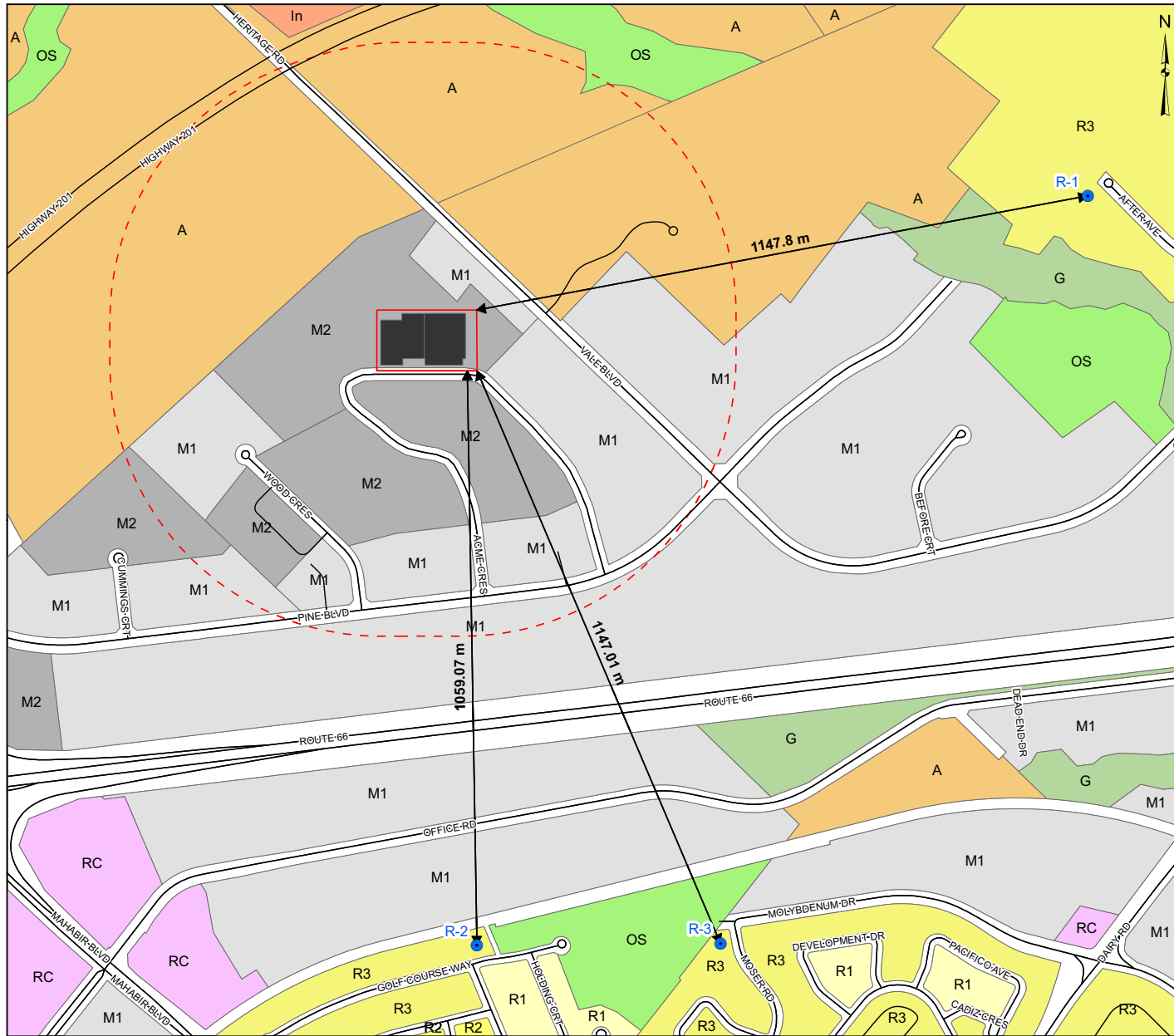


REFERENCE

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PROJECT			
EMISSION SUMMARY & DISPERSION MODELLING REPORT			
AMCE INC., AMCE ANYTOWN PLANT			
TITLE			
SITE LOCATION PLAN			
NOISE SCREENING PROCESS			
	PROJECT No. 07-5555-411		SCALE 1:15,000
	DESIGN	PRM	17 Jan 2007
	CHECK	JW	09 Feb 2007
	REVIEW	JC	09 Feb 2007
			FIGURE: 1



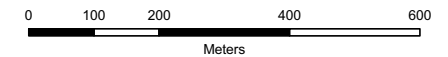
LEGEND


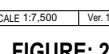
- Nearest Point of Reception
 - 500 m Site Location Buffer
 - Site Location
 - Property Line
- Zoning Description**
- A - Agricultural
 - R1 - Single Family Detached Dwelling
 - R2 - Semi-Detached Family Dwelling
 - R3 - Multiple Family Dwelling
 - RC - Retail Commercial
 - M1 - Industrial (Limited Outside Storage)
 - M2 - Industrial (Outside Storage)
 - In - Intern (Controlled bylaws)
 - OS - Open Space
 - G - Green Space



REFERENCE

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Zoning Data - Obtained from the City of Anywhere, October 2006



PROJECT				
EMISSION SUMMARY & DISPERSION MODELLING REPORT AMCE INC., AMCE ANYTOWN PLANT				
TITLE				
LANDUSE ZONING DESIGNATION PLAN NOISE SCREENING PROCESS				
	PROJECT No. 07-5555-411		SCALE 1:7,500	Ver. 1.0
	DESIGN PRM 17 Jan. 2007			
	GIS PRM 09 Feb. 2007			
	CHECK JW 09 Feb. 2007			
	REVIEW JC 09 Feb. 2007			



MATERIAL SAFETY DATA SHEET

Goocoat One

FILE NO.: 153668

MSDS DATE: 9/02/05

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Goocoat One
SYNONYMS: 
PRODUCT CODES: 

MANUFACTURER: 
DIVISION: 
ADDRESS: 

EMERGENCY PHONE: (149) 555-1234
CHEMTREC PHONE: (149) 555-5678
OTHER CALLS:
FAX PHONE: (149) 555-1235

CHEMICAL NAME: 
CHEMICAL FAMILY: 
CHEMICAL FORMULA: 

PRODUCT USE: 
PREPARED BY: 

SECTION 1 NOTES:



SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	CAS Number	Weight	ACGIH	OSHA
Toluene	108-88-3	8.0%	100 ppm	100 ppm
Xylene	1330-20-7	10.0%	100 ppm	100 ppm
Methyl isobutyl ketone	108-10-1	3.0%		
Methyl alcohol	67-56-1	10.0%		
2-Ethoxyethyl acetate	111-15-9	1.0%		
Trichloroethylene	79-01-6	2.0%		
Glycol Ether EE	110-80-5	1.0%		
Methyl ethyl ketone	78-93-3	20.0%	200 ppm	200 ppm
Isopropyl alcohol	67-63-0	1.0%		
Ethanol	64-17-5	1.0%		
N-butyl alcohol	71-36-3	1.0%		
2 Methylbutyl Alcohol	137-32-6	0.5%		
Amyl Alcohol	71-41-0	1.0%		
n Propoxypropanol	1569-01-3	1.0%		

SECTION 2 NOTES:



MATERIAL SAFETY DATA SHEET

Goocoat Two

FILE NO.: 159758

MSDS DATE: 9/02/05

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

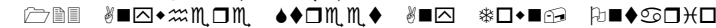
PRODUCT NAME: Goocoat Two

SYNONYMS: 

PRODUCT CODES: 

MANUFACTURER: 

DIVISION: 

ADDRESS: 

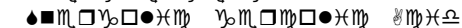
EMERGENCY PHONE: (149) 555-1234

CHEMTREC PHONE: (149) 555-5678

OTHER CALLS:

FAX PHONE: (149) 555-1235

CHEMICAL NAME: 

CHEMICAL FAMILY: 

CHEMICAL FORMULA: 

PRODUCT USE: 

PREPARED BY: 

SECTION 1 NOTES:



SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Ingredients</u>	<u>CAS</u> <u>Number</u>	<u>Weight</u>	<u>ACGIH</u>	<u>OSHA</u>
Toluene	108-88-3	12.0%	100 ppm	100 ppm
Xylene	1330-20-7	15.0%	100 ppm	100 ppm
Methyl isobutyl ketone	108-10-1	5.0%		
Methyl alcohol	67-56-1	20.0%		
2-Ethoxyethyl acetate	111-15-9	1.0%		
Trichloroethylene	79-01-6	3.5%		
Glycol Ether EE	110-80-5	1.0%		
Methyl ethyl ketone	78-93-3	25.0%	200 ppm	200 ppm
Isopropyl alcohol	67-63-0	1.0%		
Ethanol	64-17-5	1.0%		

SECTION 2 NOTES:



MATERIAL SAFETY DATA SHEET

Goocoat Three

FILE NO.: 568423

MSDS DATE: 9/02/05

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

*** ማቆራረጫ ማድረግ ሲገባ ለሰው ጤንና ለአካባቢ ጉዳት ምክንያት ሊሆን ይችላል። ለዚህ ምክንያት ማቆራረጫ ማድረግ ሲገባ ለሰው ጤንና ለአካባቢ ጉዳት ምክንያት ሊሆን ይችላል።

የዕቃው አይነት፣ የሕይወት አደጋ፣ የአካባቢ ጉዳት

የሕመም ምልክት

የሕመም ምልክት

የሕመም ምልክት፣ የሕመም ምልክት፣ የሕመም ምልክት

የሕመም ምልክት፣ የሕመም ምልክት

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STATE REGULATIONS:

*** ማቆራረጫ ማድረግ ሲገባ ለሰው ጤንና ለአካባቢ ጉዳት ምክንያት ሊሆን ይችላል። ለዚህ ምክንያት ማቆራረጫ ማድረግ ሲገባ ለሰው ጤንና ለአካባቢ ጉዳት ምክንያት ሊሆን ይችላል።

INTERNATIONAL REGULATIONS:

*** ማቆራረጫ ማድረግ ሲገባ ለሰው ጤንና ለአካባቢ ጉዳት ምክንያት ሊሆን ይችላል። ለዚህ ምክንያት ማቆራረጫ ማድረግ ሲገባ ለሰው ጤንና ለአካባቢ ጉዳት ምክንያት ሊሆን ይችላል።

SECTION 15 NOTES:

SECTION 16: OTHER INFORMATION

OTHER INFORMATION:

*** ማቆራረጫ ማድረግ ሲገባ ለሰው ጤንና ለአካባቢ ጉዳት ምክንያት ሊሆን ይችላል። ለዚህ ምክንያት ማቆራረጫ ማድረግ ሲገባ ለሰው ጤንና ለአካባቢ ጉዳት ምክንያት ሊሆን ይችላል።

PREPARATION INFORMATION:

*** ማቆራረጫ ማድረግ ሲገባ ለሰው ጤንና ለአካባቢ ጉዳት ምክንያት ሊሆን ይችላል። ለዚህ ምክንያት ማቆራረጫ ማድረግ ሲገባ ለሰው ጤንና ለአካባቢ ጉዳት ምክንያት ሊሆን ይችላል።

DISCLAIMER:

*** ማቆራረጫ ማድረግ ሲገባ ለሰው ጤንና ለአካባቢ ጉዳት ምክንያት ሊሆን ይችላል። ለዚህ ምክንያት ማቆራረጫ ማድረግ ሲገባ ለሰው ጤንና ለአካባቢ ጉዳት ምክንያት ሊሆን ይችላል።

Attachment 4

Noise Screening Process for s.9 Applications, Supplement for Approval

NOISE SCREENING PROCESS FOR S.9 APPLICATIONS SUPPLEMENT TO APPLICATION FOR APPROVAL

In order to obtain an approval under Section 9 of the EPA, applicants are, as a minimum, required to assess and document the impacts of all noise emissions from their facility on any noise sensitive locations defined as a Point of Reception. In order to facilitate this assessment, the ministry has developed a Noise Screening Process.

The Noise Screening Process has been developed for mining, utilities and manufacturing operations that are being reviewed by the Air and Noise Unit of the Environmental Assessment and Approvals Branch. Other facilities that require Section 9 approval can not use this Noise Screening Process. Applications for equipment identified as candidates for the Streamline Review Unit (SRU) should not complete this process, rather they should follow specific directions from the SRU. For more information about the types of applications that may be reviewed by the SRU, please refer to the Guide to Applying for Approval (Air & Noise) dated February, 2005.

The Noise Screening Process consists of the following Steps:

- | | |
|---------|---|
| Step 1: | Identify the closest Point of Reception to the facility. (Zoning Plan) |
| Step 2: | Determine the actual separation distance from the Point of Reception to the facility. (Scaled Area Location Plan) |
| Step 3: | Calculate the minimum required separation distance by completing the questionnaire on using the facility's North American Industrial Classification System Code and generic assumptions regarding the actual noise sources present at the facility. |
| Step 4: | Compare the actual separation distance determined in Step 2 with the minimum required separation distance calculated in Step 3 and sign the form. |

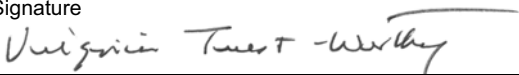
The Noise Screening Process is based on the fact that the noise emissions from any noise sources at a facility will not exceed ministry noise guidelines at the closest Point of Reception provided there is a sufficient separation distance between the facility's noise sources and the Point of Reception. Using conservative assumptions regarding the likely noise sources present at a facility, a procedure was developed for calculating the minimum required separation distance to achieve compliance with the ministry noise guidelines. If the actual separation distance from the facility to the closest Point of Reception is greater than the calculated minimum required separation distance, then no further action is required. The signed Noise Screening Process form would provide sufficient supporting information for the noise assessment required by the application process.

If the closest Point of Reception is closer than the minimum required separation distance calculated in Step 3 then further assessment is required. The application may still be approved as proposed and noise control measures may not be necessary; however, a more detailed noise impact assessment using site specific information on the noise sources present at the facility must be completed. The Zoning Plan and Scaled Area Location Plan required by the Noise Screening Process will form part of the required assessment outlined in the ministry publication NPC 233 "Information to be Submitted for Approval of Stationary Sources of Sound." See the Guide to Applying for Approval (Air and Noise) dated February, 2005 for more information on the minimum required supporting information to be included with an application that is unable to pass the Noise Screening Process.

1. Applicant Information

Company Name Acme Inc.	Site Name Acme Anytown Plant	North American Industry Classification System (NAICS) Code 336410
Site Address - Street information (<i>applies to an address that has civic numbering and street information - includes street number, name, type and direction</i>) 123 Anywhere St.		Unit Identifier (<i>identifies type of unit, such as suite & number</i>)
Survey Address (<i>used for a rural location specified for a subdivided township, an unsubdivided township or unsurveyed territory</i>)		
Non Address Information (<i>includes any additional information to clarify clients' physical location</i>)		
Municipality/Unorganized Township Anytown	County/District Ontario	Postal Code N9N 1A1

2. Noise Screening Process (*please refer to the attached Noise Screening Process – Information & Instructions*)

Step 1 Identify Closest Point of Reception (POR) (attach Land Use Zoning Designation Plan) POR Description Residential Dwelling POR Acoustical Class (as per NPC-205 & NPC-232) <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3				
Step 2 Determine Actual Separation Distance (attach Scaled Area Location Plan) 1,200 m				
Step 3 Calculate Minimum Separation Distance (complete attached Noise Screening Process Questionnaire) 300 m				
Step 4 By signing this statement you are verifying that: <ul style="list-style-type: none">I am the applicant or have been retained by the applicant, for the purposes of completing this Noise Screening Process;The closest Point of Reception has been identified and the Land Use Zoning Designation Plan provided by the Local Municipality is attached (Step 1);A Scaled Area Location Plan, prepared by myself, that identifies the facility, the closest Point of Reception and the actual minimum separation distance is attached (Step 2);I have accurately completed the Noise Screening Process questionnaire and identified all noise sources as required (Step 3);The actual separation distance from the facility to the closest Point of Reception, as determined in Steps 1 and 2, is greater than the minimum required separation distance determined in Step 3; andThe facility belongs to one of the sectors for which the ministry has indicated the Noise Screening Process is applicable.				
Name of Signing Authority (<i>please print</i>) Virginia Trust-Worthy	Title: General Manager	Company: (<i>if different from the Applicant</i>)		
Civic Address - Street information (<i>includes street number, name, type and direction</i>) <input checked="" type="checkbox"/> Same as Site Address		Unit Identifier (<i>identifies type of unit, such as suite & number</i>)		
Municipality	Postal Station	Province/State	Country	Postal Code
Telephone Number (<i>including area code & extension</i>) (905) 555 - 1985		Fax Number (<i>including area code</i>) (905) 555 - 1967		E-mail Address VTrust@acmeinc.com
Signature 				Date (y/m/d) February 19, 2007

Noise Screening Process Questionnaire

Question 1

1 (a) - Is your facility NAICS Code Listed on Table 1.1 below?

Table 1.1 Industry with significant noise sources		
NAICS Code	Industry	Check all That Apply
21	Mining and Oil and Gas Extraction	<input type="checkbox"/>
22111	Electrical Power Generation	<input type="checkbox"/>
324	Petroleum and Coal Products Manufacturing	<input type="checkbox"/>
3251	Basic Chemical Manufacturing	<input type="checkbox"/>
32731	Cement Manufacturing	<input type="checkbox"/>
32741	Lime Manufacturing	<input type="checkbox"/>
3311	Iron and Steel Mills and Ferro-Alloy Manufacturing	<input type="checkbox"/>
3313	Alumina and Aluminium Production and Processing	<input type="checkbox"/>

1 (b) - Is any of the following equipment Listed on Table 1.2 below present at the facility?

Table 1.2 Equipment with significant noise emissions	
Equipment	Check all That Apply
Flares	<input type="checkbox"/>
Gas Turbines, Cogeneration Facilities or any other continuous or peak shaving electrical power generation equipment	<input type="checkbox"/>
Arc Furnaces	<input type="checkbox"/>
Asphalt Plants	<input type="checkbox"/>
High velocity or pressure atmospheric vents such as Gas Process Blow Down Devices	<input type="checkbox"/>
Rock, Concrete or Aggregate Crushing Operations	<input type="checkbox"/>
Individual Fans with flow rates in excess of 47 m ³ /s	<input type="checkbox"/>
Individual Pressure Blowers or Positive Displacement Blowers with static pressures in excess of 1.25 kilopascal	<input type="checkbox"/>

Did you answer "Yes" to Question 1(a) or 1 (b)?

☐ Yes

☒ No

If Yes, the minimum required separation distance is 1,000 m.

You have completed Step 3 of the Noise Screening Process, proceed to Step 4.

If No, proceed to Question 2

Proceed to Question 2

Question 2

2 - Is your facility NAICS Code Listed on Table 2 below?

Table 2 Industries with a 500 m Radius		
NAICS Code	Industry	Check all That Apply
22112	Electrical Power Transmission, Control and Distribution	<input type="checkbox"/>
2213	Water Sewage and Other Systems	<input type="checkbox"/>
321	Wood Product Manufacturing	<input type="checkbox"/>
322	Paper Manufacturing	<input type="checkbox"/>
325	Chemical Manufacturing (except 3251 as noted in Table 1.1 above)	<input type="checkbox"/>
326	Plastics and Rubber Products Manufacturing	<input type="checkbox"/>
327	Non-Metallic Mineral Product Manufacturing (except 32731 and 32741 as noted in Table 1.1 above)	<input type="checkbox"/>
331	Primary Metal Manufacturing (except 3311 as noted in Table 1.1 above)	<input type="checkbox"/>
332	Fabricated Metal Product Manufacturing (except 33271 and 3328)	<input type="checkbox"/>
333	Machinery Manufacturing	<input type="checkbox"/>
335	Electrical Equipment, Appliance and Component Manufacturing	<input type="checkbox"/>
336	Transportation Equipment Manufacturing	<input checked="" type="checkbox"/>

Did you answer "Yes" to Question 2?

☒ Yes

☐ No

If Yes, the minimum required separation distance is as follows:

	Minimum Separation	Check the One That Applies
For Class 1:		
Daytime Operation Only (between 7:00 am and 7:00 pm)	300 m	<input checked="" type="checkbox"/>
Daytime and Afternoon shift only (between 7:00 am and 11:00 pm)	400 m	<input type="checkbox"/>
Other times (outside the hours of 7:00 am to 11:00 pm)	500 m	<input type="checkbox"/>
For Class 2:		
Daytime Operation Only (between 7:00 am and 7:00 pm)	300 m	<input type="checkbox"/>
Multi shifts (outside the hours of 7:00 am to 7:00 pm)	500 m	<input type="checkbox"/>
For Class 3:		
Any Operation	500 m	<input type="checkbox"/>

You have completed Step 3 of the Noise Screening Process, proceed to Step 4

If No, proceed to Question 3

Question 3

3 - Provide information on the facility and any noise sources that may be present by answering the following questions to determine a Score for noise sources located at the facility:

				Check one for each question	Value	Score
(a) What is the area of the enclosed buildings of the facility?						
< 650 m ²		< 7,000 ft ²	<input type="checkbox"/>		20	
650 m ² to < 2,300 m ²		7,000 ft ² to < 25,000 ft ²	<input type="checkbox"/>		25	
2,300 m ² to 9,300 m ²		25,000 ft ² to 100,000 ft ²	<input type="checkbox"/>		30	
> 9,300 m ²		> 100,000 ft ²	<input type="checkbox"/>		40	
multi building			<input type="checkbox"/>		40	
(b) Are any cooling towers located at the facility?						
Yes			<input type="checkbox"/>			
- Total of all cooling towers less than 20 horsepower		< 15 kW	<input type="checkbox"/>		10	
- Total of all cooling towers from 20 to 100 horsepower		15 to 75 kW	<input type="checkbox"/>		20	
- Total of all cooling towers greater than 100 horsepower		> 75 kW	<input type="checkbox"/>		40	
No			<input type="checkbox"/>		0	
(c) Are any outdoor air cooled chillers located at the facility?						
Yes			<input type="checkbox"/>			
- Total of all chillers less than 150 ton		< 530 kW	<input type="checkbox"/>		10	
- Total of all chillers from 150 to 1,000 ton		530 to 3,500 kW	<input type="checkbox"/>		20	
- Total of all chillers greater than 1,000 ton		> 3,500 kW	<input type="checkbox"/>		40	
No			<input type="checkbox"/>		0	
(d) Are any air compressors used to provide process air or for pneumatic conveying systems located at the facility?						
Yes			<input type="checkbox"/>			
- Total of all compressors less than 10 horsepower		< 7.5 kW	<input type="checkbox"/>		10	
- Total of all compressors from 10 to 75 horsepower		7.5 to 56 kW	<input type="checkbox"/>		20	
- Total of all compressors greater than 75 horsepower		> 56 kW	<input type="checkbox"/>		40	
No			<input type="checkbox"/>		0	
(e) Is a boiler located at the facility?						
Yes			<input type="checkbox"/>			
- Total heat input of all boilers less than 10 million BTU/hr		< 2,930 kW	<input type="checkbox"/>		10	
- Total heat input of all boilers from 10 to 67 million BTU/hr		2,930 to 19,600 kW	<input type="checkbox"/>		20	
- Total heat input of all boilers greater than 67 million BTU/hr		> 19,600 kW	<input type="checkbox"/>		40	
No			<input type="checkbox"/>		0	
(f) What is the total volumetric flow rate of all process exhaust and general ventilation fans?						
< 5 m ³ /s			<input type="checkbox"/>		0	
5 m ³ /s to < 10 m ³ /s			<input type="checkbox"/>		10	
10 m ³ /s to < 15 m ³ /s			<input type="checkbox"/>		20	
15 m ³ /s to < 20 m ³ /s			<input type="checkbox"/>		30	
> 20 m ³ /s			<input type="checkbox"/>		40	
(g) Are any of the above air compressors, fan or blower motors located outside the building envelope?						
Yes			<input type="checkbox"/>		10	
No			<input type="checkbox"/>		0	
SUBTOTAL - Add Score from (a) to (g)						

Question 3 (continued)

Adjustments for Hours of Operation		Check one	Value	Score
Class 1	Daytime Operation Only (between 7:00 am and 7:00 pm) *	<input type="checkbox"/>	-20	
	Daytime and Afternoon shift only (between 7:00 am and 11:00 pm) **	<input type="checkbox"/>	-15	
	Other times (outside the hours of 7:00 am to 11:00 pm)	<input type="checkbox"/>	-10	
Class2	Daytime Operation Only (between 7:00 am and 7:00 pm)*	<input type="checkbox"/>	-20	
	Multi shifts (outside the hours of 7:00 am to 7:00 pm)	<input type="checkbox"/>	-10	
Class 3	Daytime Operation Only (between 7:00 am and 7:00 pm)	<input type="checkbox"/>	-10	
	Multi shifts (outside the hours of 7:00 am to 7:00 pm)	<input type="checkbox"/>	0	
TOTAL ADJUSTMENT (A)				
Adjustments for Elevated Background Noise at Point of Reception (POR)***		Check one	Value	Score
Class 1	POR within 100 m of a 400 Series Freeway (e.g. 401)	<input type="checkbox"/>	-10	
	POR within 30 m of a Provincial Highway or Arterial Road (eg HWY 27, Keele St)	<input type="checkbox"/>	-10	
	POR at other locations	<input type="checkbox"/>	0	
Class2	POR within 100 m of a 400 Series Freeway (e.g. 401)	<input type="checkbox"/>	-10	
	POR within 30 m of a Provincial Highway or Arterial Road (eg HWY 27, Keele St)	<input type="checkbox"/>	-10	
	POR at other locations	<input type="checkbox"/>	0	
Class 3	All locations	<input type="checkbox"/>	0	
TOTAL ADJUSTMENT (B)				
TOTAL SCORE - SUBTOTAL + TOTAL ADJUSTMENT (A) + TOTAL ADJUSTMENT (B)				

- * Note: the largest minimum separation distance for Daytime Operation only in Class 1 or 2 is 300 m.
- ** Note: the largest minimum separation distance for Evening and Daytime Operation only in Class 1 is 400 m
- *** Note: if Adjustments for Elevated Background Noise are used then the applicant must identify the next closest receptor outside the area of influence of the roadway and show that the actual separation distance to the next closest receptor is greater than the minimum required separation distance without adjustments.

Minimum Separation Distances – Based on Total Score (above)

Total Score	Minimum Separation Distance	Check the distance that applies
< 0 points	50 m	<input type="checkbox"/>
< 5 points	75 m	<input type="checkbox"/>
< 10 points	100 m	<input type="checkbox"/>
< 20 points	200 m	<input type="checkbox"/>
< 30 points	300 m	<input type="checkbox"/>
< 40 points	400 m	<input type="checkbox"/>
40 or more points	500 m	<input type="checkbox"/>
Distance:		m

NOISE SCREENING PROCESS – INFORMATION & INSTRUCTIONS

STEP 1: IDENTIFY CLOSEST POINT OF RECEPTION

The applicant must identify and locate the closest Point of Reception (POR) affected by any noise emissions that may arise from the operations at the facility. A Point of Reception is defined as “any point on the premises of a person where sound or vibration originating from other than those premises is received”.

The Point of Reception may be located on any of the following existing or zoned for future use premises:

- permanent or seasonal residences;
- hotels/motels;
- nursing/retirement homes;
- rental residences;
- hospitals;
- campgrounds; and
- noise sensitive buildings such as schools and places of worship.

For the Screening Process it is only required to identify the closest Point of Reception to the facility or any outdoor noise sources. For a more detailed assessment additional Point(s) of Reception may be required to be identified in other directions based on site specific conditions.

The closest Point of Reception must be selected using a **Land Use Zoning Designation Plan**. This plan indicates the approved local land use and nature of the neighbourhood for the area surrounding the facility. The plan must be based on up-to-date Zoning information provided by the Local Municipality. Zoning Designation Plans may be obtained from the planning department of the Local Municipality. This information may be in the form of hard copy zoning plans prepared by the municipality or electronic base maps showing local land use and features that may be available from the municipality to be printed by the applicant.

The Zoning information obtained from the Local Municipality must be detailed enough to clearly indicate the approved local land use for the individual properties surrounding the facility in a radius including the closest Point of Reception. The plan must include a scale and legend indicating the land use. The Zoning Information used to identify the closest Point of Reception must be attached to the Screening Process.

The Point of Reception Identification section should also describe the environmental noise climate at the Point of Reception in terms of the acoustical class, according to the following definitions:

- "Class 1 Area" means an area with an acoustical environment typical of a major population centre, where the background noise is dominated by the urban hum.
- "Class 2 Area" means an area with an acoustical environment that has qualities representative of both Class 1 and Class 3 Areas, and in which a low ambient sound level, normally occurring only between 23:00 and 07:00 hours in Class 1 Areas, will typically be realized as early as 19:00 hours.
Other characteristics which may indicate the presence of a Class 2 Area include:
 - absence of urban hum between 19:00 and 23:00 hours;
 - evening background sound level defined by natural environment and infrequent human activity; and
 - no clearly audible sound from stationary sources other than from those under impact assessment.
- "Class 3 Area" means a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as the following:
 - a small community with less than 1,000 population;
 - an agricultural area;
 - a rural recreational area such as a cottage or a resort area; or
 - a wilderness area.

STEP 2: DETERMINE ACTUAL SEPARATION DISTANCE

The location of the closest Point of Reception must be shown on a figure, prepared by the applicant, to determine the actual separation distance from the facility to the Point of Reception. The figure is referred to as a **Scaled Area Location Plan**.

For the Purposes of the Screening Process it may be possible to use the Zoning information provided by the Local Municipality as the Scaled Area Location Plan. However, the information is usually better presented in two separate figures because the scale of zoning plans available from the Local municipality is usually too small to sufficiently show the level of detail required by the Scaled Area Location Plan.

This figure, prepared by the applicant, must clearly indicate the location of the facility, the facility property line, all buildings on the facility and any noise sources at the facility that are located outside of the building envelope, such as dust collectors located beside a building. For the purposes of the Screening Process, it is not required to identify all noise sources, such as roof-mounted exhaust fans, on the Scaled Area Location Plan. The Scaled Area Location Plan must also show and name all local roads and features of the neighbourhood for the area surrounding the facility within a radius that includes the closest Point of Reception identified in Step 1. The figure must include a legend and scale.

The actual separation distance is calculated from the closest facility wall or outside noise source, such as a dust collector located outside the facility, to the Property Line of the selected Point of Reception. For rural receptors in Class 3 Areas, where properties may be larger and may include areas that would not be considered noise-sensitive, Points of Reception are limited to locations within 30 metres of a dwelling or a camping area, where sound or vibration originating from other than those premises is received. The location of the closest Point of Reception must be shown on the figure and the actual separation distance from the facility to the Property line of the closest Point of Reception must also be shown as a line on the figure, measured in metres.

Base maps showing the features of the surrounding neighbourhood may be obtained from the Local Municipality, Ministry of Natural Resources or other mapping companies.

The plan may include the location and features of all buildings surrounding the facility and include the topography of the surrounding area should it have an effect on the transmission of noise to a Point of Reception. However for the Screening Process this is usually not necessary. This information is required for a more detailed noise assessment.

Note: For larger facilities with outdoor noise sources, this process may have to be repeated for each outdoor noise source and different Points of Reception in order to identify the shortest actual separation distance to the closest Point of Reception.

STEP 3 – CALCULATE MINIMUM REQUIRED SEPARATION DISTANCE

Applicants are required to complete the Noise Screening Process questionnaire to calculate the minimum required separation distance that will result in compliance with the noise guidelines for the facility. Generic separation distances have been supplied that should provide a sufficient separation distance for a facility based on the type of operations conducted at the facility and the size and quantity of common noise sources associated with the type of facility under review. The minimum required distances have been provided from 1,000 m to 50 m. If a facility is closer to a Point of Reception than 50 m, you can not use this process. Conversely, if a facility is well sited, located more than 1,000m from a Point of Reception, then a detailed noise assessment is not required.

Applicants must use the North American Industry Classification System (NAICS) Code required by the application form to describe the facility. The NAICS code is determined in accordance with the Statistics Canada publication “North American Industry Classification System (NAICS) 2002 - Canada”. For more information on determining the NAICS Code for a business please see www.statcan.ca. This screening process only applies to facilities with NAICS Codes starting with 21, 22, 31, 32 or 33. **If the NAICS code for the facility does not fall into one of these sectors then this step of the Screening Process can not be used.**

The following explanations are intended to assist with completing the Questionnaire:

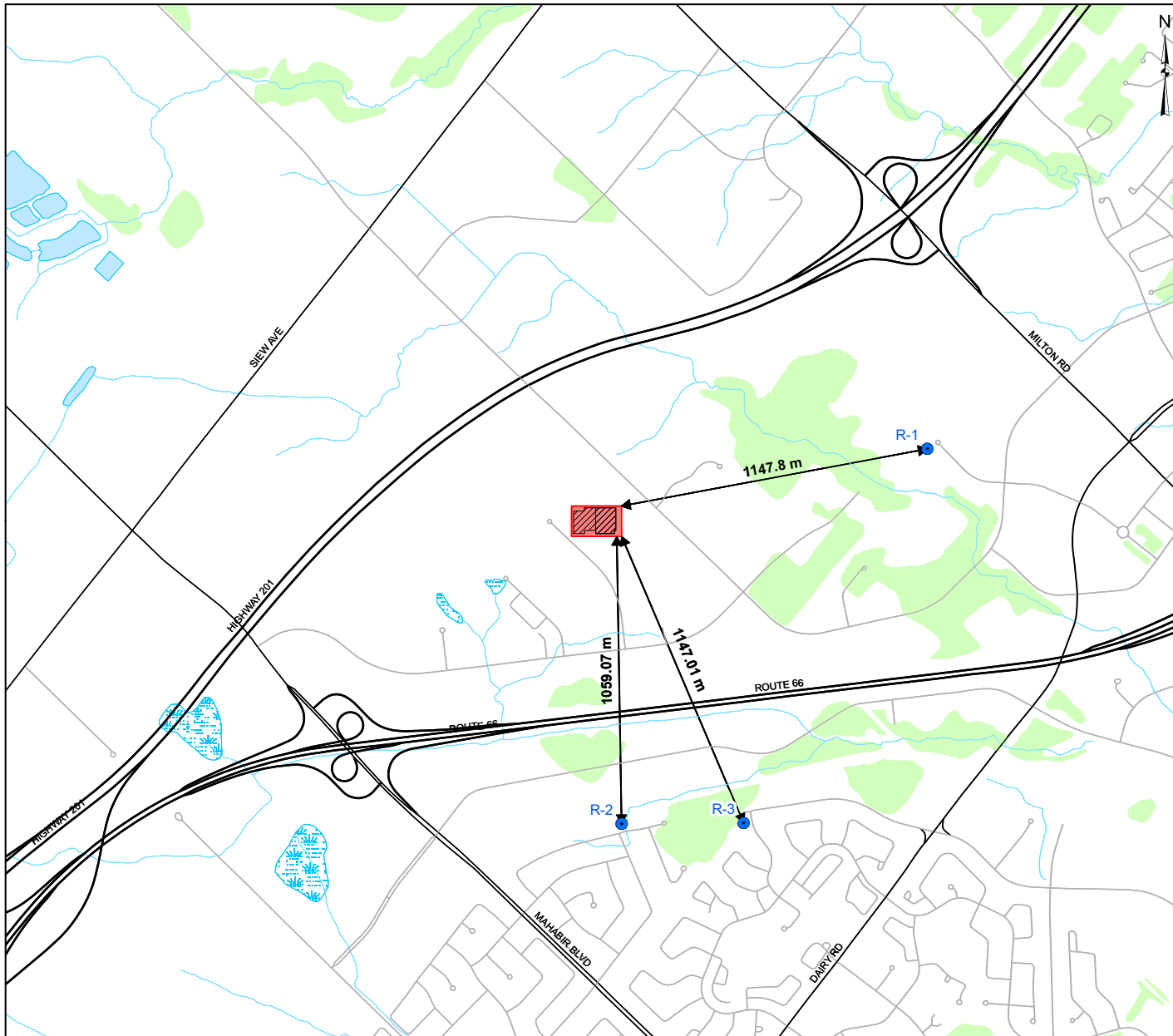
Table 1.2 The presence of any one piece of equipment identified on this table should be indicated in the appropriate check box. The reference to fans and blowers is for individual large fans or blowers only. It is not required to sum the total volumetric flow rate or pressure drops across all fans or blowers at the facility. The applicant

must include any fans or blowers located on delivery trucks that supply or transport raw materials or products from the facility.

- Table 1.2 The applicant must identify large atmospheric vents that are associated with process pressure vessels, or piping such as natural gas blow down valves at pipeline compressor stations. This category of equipment is not intended to capture mandatory steam release valves from commercial boilers.
- Question 3 For each type of equipment identified on this table the total rating for all similar pieces of equipment should be summed and indicated in the appropriate question.
- Question 3(f) The applicant is required to sum the total maximum volumetric flow rate for all process or general ventilation fans or blowers at the facility that are not directly referenced elsewhere in the table. If fans are capable of operating at two speeds the higher volumetric flow rate should be used. It is not necessary to include fans associated with cooling towers or part of packaged HVAC equipment. Fans serving condensers or other cooling units should be included. The applicant must include any fans or blowers located on delivery trucks that supply or transport raw materials or products from the facility.
- Question 3(g) The applicant is required to identify if any motors powering any of the fans, blowers or air compressors are located outside the building envelope. For example if a fan serving a dust collector is located outside then the answer is yes. If the fan and dust collector are inside the building envelope the answer is no.

STEP 4: STATEMENT FACILITY MEETS SCREENING REQUIREMENTS

If an applicant can demonstrate through this screening process that the actual separation distance from the facility to the closest Point of Reception shown on the Scaled Area Location Plan is greater than the minimum required separation distance calculated in Step 3, then the person who conducted the Noise Screening Process must complete and sign off in Step 4.



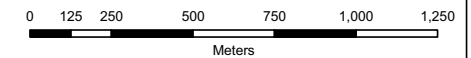
LEGEND

- Noise Receptor
- Highway
- Major Road
- Local Road
- Watercourse
- Waterbody
- Wetland
- Woodlot
- Site Location
- Property Boundary



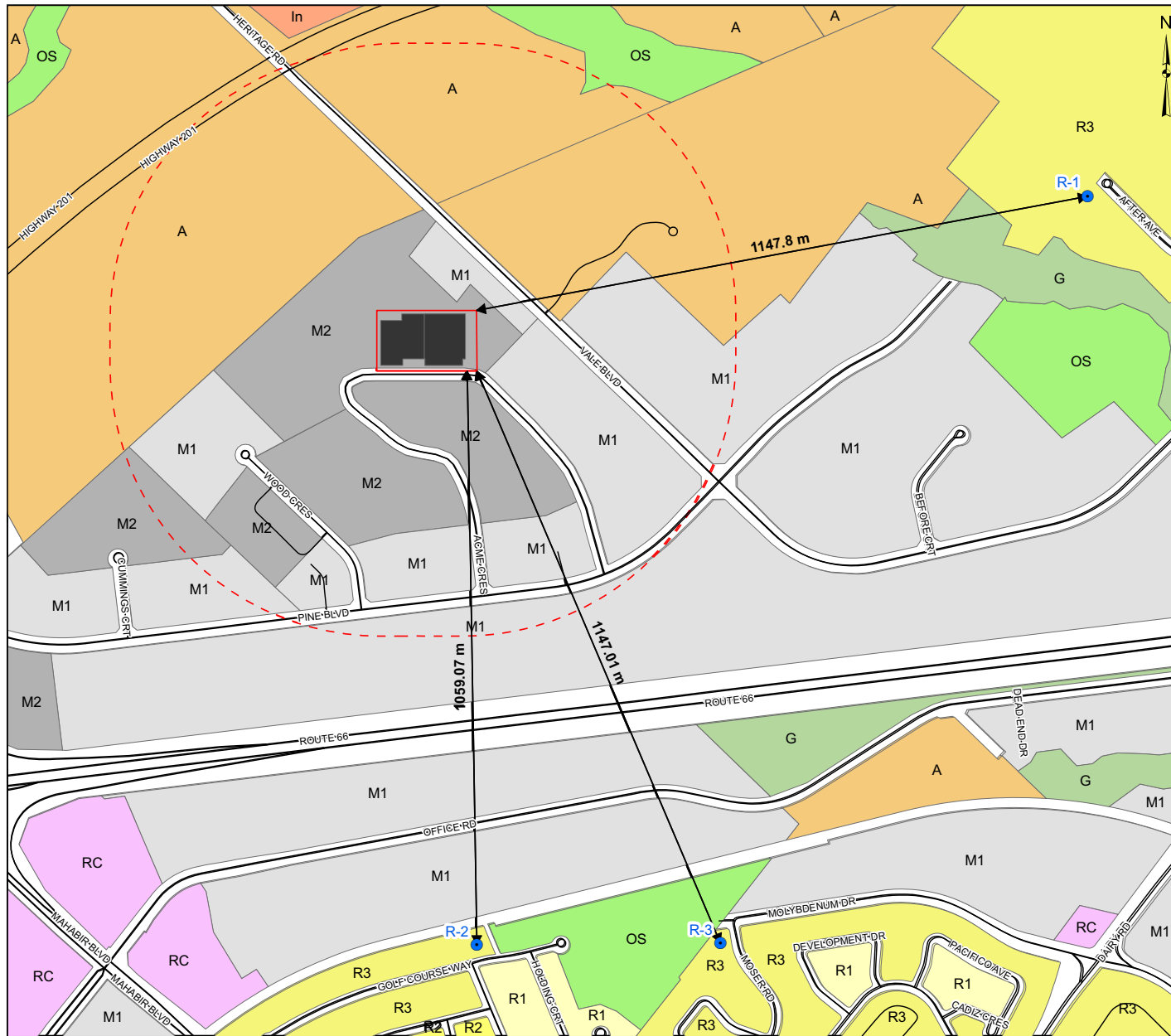
REFERENCE

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PROJECT		EMISSION SUMMARY & DISPERSION MODELLING REPORT ACME INC., ACME ANYTOWN PLANT		
TITLE		SITE LOCATION PLAN NOISE SCREENING PROCESS		
	PROJECT No. 07-5555-411		SCALE 1:15,000	Ver. 1.0
	DESIGN	PRM	17 Jan. 2007	
	GIS	PRM	09 Feb. 2007	
	CHECK	JW	09 Feb. 2007	
	REVIEW	JC	09 Feb. 2007	

FIGURE: 1



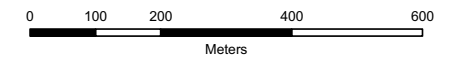
LEGEND

- Nearest Point of Reception
- 500 m Site Location Buffer
- Site Location
- Property Line
- Zoning Description**
- A - Agricultural
- R1 - Single Family Detached Dwelling
- R2 - Semi-Detached Family Dwelling
- R3 - Multiple Family Dwelling
- RC - Retail Commercial
- M1 - Industrial (Limited Outside Storage)
- M2 - Industrial (Outside Storage)
- In - Interm (Controlled bylaws)
- OS - Open Space
- G - Green Space



REFERENCE

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Zoning Data - Obtained from the City of Anywhere, October 2006



PROJECT		EMISSION SUMMARY & DISPERSION MODELLING REPORT	
		ACME INC., ACME ANYTOWN PLANT	
TITLE		LANDUSE ZONING DESIGNATION PLAN	
		NOISE SCREENING PROCESS	
	PROJECT No.	07-5555-411	SCALE 1:7,500
	DESIGN	PRM 17 Jan 2007	Ver. 1.0
	GIS	PRM 09 Feb 2007	
	CHECK	JW 09 Feb 2007	
	REVIEW	JC 09 Feb 2007	
		FIGURE: 2	

Attachment 5

Master Business License



Attachment 6

Emission Summary and Dispersion Modelling Report

FINAL

**EMISSION SUMMARY AND
DISPERSION MODELLING REPORT
ACME ANYTOWN PLANT**

**Acme Inc.
123 Anywhere Street
Anytown, ON**

February 19, 2007

**Prepared by:
P.E.S Stacks Inc.
Toronto, ON**

Project Number 07-5555-411

EMISSION SUMMARY AND DISPERSION MODELLING REPORT CHECKLIST

Company Name: Acme Inc.

Company Address: 123 Anywhere St. Any Town, ON N9N 1A1

Location of Facility: 123 Anywhere St. Any Town, ON N9N 1A1


The attached Emission Summary and Dispersion Modeling Report was prepared in accordance with s.26 of O. Reg. 419/05 and the guidance in the MOE document "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated July, 2005 and "Air Dispersion Modelling Guideline for Ontario" dated July 2005 and the minimum required information identified in the check-list on the reverse of this sheet has been submitted.

Company Contact: Acme Inc.

Name: Virginia Trust-Worthy

Title: General Manager

Phone Number: (905) 555 - 1985

Signature: 

Date: February 19, 2007

Technical Contact: _____

Name: Joe Consultant

Representing: P.E.S. Stacks Inc.

Phone Number: (905) 555 - 2345

Signature: 

Date: February 19, 2007

EMISSION SUMMARY AND DISPERSION MODELLING REPORT CHECKLIST

Required Information		Submitted	Explanation/Reference
Executive Summary and Emission Summary Table			
1.1	Overview of ESDM Report	<input checked="" type="checkbox"/> Yes	Executive Summary
1.2	Emission Summary Table	<input checked="" type="checkbox"/> Yes	Executive Summary
1.0 Introduction and Facility Description			
1.1	Purpose and Scope of ESDM Report (when report only represents a portion of facility)	<input checked="" type="checkbox"/> Yes	Section 1.1
1.2	Description of Processes and NAICS code(s)	<input checked="" type="checkbox"/> Yes	Section 1.2
1.3	Description of Products and Raw Materials	<input checked="" type="checkbox"/> Yes	Section 1.3
1.4	Process Flow Diagram	<input checked="" type="checkbox"/> Yes	Section 1.4 & Figure 4
1.5	Operating Schedule	<input checked="" type="checkbox"/> Yes	Section 1.5
2.0 Initial Identification of Sources and Contaminants			
2.1	Sources and Contaminants Identification Table	<input checked="" type="checkbox"/> Yes	Section 2.1 & Table 1
3.0 Assessment of the Significance of Contaminants and Sources			
3.1	Identification of Negligible Contaminants and Sources	<input checked="" type="checkbox"/> Yes	Section 3.1
3.2	Rationale for Assessment	<input checked="" type="checkbox"/> Yes	Section 3.2 & Appendix B
4.0 Operating Conditions, Emission Estimating and Data Quality			
4.1	Description of operating conditions, for each significant contaminant that results in the maximum POI concentration for that contaminant	<input checked="" type="checkbox"/> Yes	Section 4.1 & Appendix A
4.2	Explanation of Method used to calculate the emission rate for each contaminant	<input checked="" type="checkbox"/> Yes	Section 4.2 & Appendix A
4.3	Sample calculation for each method	<input checked="" type="checkbox"/> Yes	Section 4.3 & Appendix A
4.4	Assessment of Data Quality for each emission rate	<input checked="" type="checkbox"/> Yes	Section 4.4
5.0 Source Summary Table and Property Plan			
5.1	Source Summary Table	<input checked="" type="checkbox"/> Yes	Section 5.1 & Table 2
5.2	Site Plan (scalable)	<input checked="" type="checkbox"/> Yes	Section 5.2 & Figure 3
6.0 Dispersion Modelling			
6.1	Dispersion Modelling Input Summary Table	<input checked="" type="checkbox"/> Yes	Section 6.1 & Table 3
6.2	Land Use Zoning Designation Plan	<input checked="" type="checkbox"/> Yes	Section 6.2 & Figure 2
6.3	Dispersion Modelling Input and Output Files	<input checked="" type="checkbox"/> Yes	Section 6.3 & Appendix C
7.0 Emission Summary Table and Conclusions			
7.1	Emission Summary Table	<input checked="" type="checkbox"/> Yes	Section 7.1 & Table 4
7.2	Assessment of Contaminants with no MOE POI Limits	<input checked="" type="checkbox"/> Yes	Section 7.2
7.3	Conclusions	<input checked="" type="checkbox"/> Yes	Section 7.3
Appendices (Provide supporting information or details such as...)			
	Supporting Calculations	<input checked="" type="checkbox"/> Yes	Appendix A
	Supporting Information for Assessment of Negligibility	<input checked="" type="checkbox"/> Yes	Appendix B
	Dispersion Modelling Printouts	<input checked="" type="checkbox"/> Yes	Appendix C
	Material Safety Datasheets	<input checked="" type="checkbox"/> Yes	Appendix D
		<input type="checkbox"/> Yes	
		<input type="checkbox"/> Yes	
		<input type="checkbox"/> Yes	

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Completed 2005 Emission Summary and Dispersion Modelling Check List

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Figure 4	Process Flow Diagram

EXECUTIVE SUMMARY AND EMISSION SUMMARY TABLE

This Emission Summary and Dispersion Modelling (ESDM) Report was prepared to support an application for a Basic Comprehensive Certificate of Approval (CofA). The ESDM Report was prepared in accordance with s.26 of O. Reg. 419/05 to support the CofA application. In addition, guidance in the ministry publication “Procedure for Preparing an Emission Summary and Dispersion Modelling Report” dated July 2005 (ESDM Procedure Document) was followed as appropriate.

Acme Inc. operates a manufacturing facility located at 123 Anywhere Street in Anytown, Ontario (the Facility). The Facility is located in an area zoned for industrial use. Acme Inc. produces coated metal products. The main manufacturing process consists of coating metal components with a solvent based coating.

The Facility is subject to s. 18 of O. Reg. 419/05, therefore the modelled impact of contaminant emissions can be assessed as half-hour maximum point of impingement (POI) concentration. The appropriate model to assess the half-hour maximum POI impact is the model in the Appendix to Regulation 346.

The Facility is expected to emit Volatile Organic Compounds and Products of Combustion. Some of the sources and contaminants were considered negligible in accordance with s. 8 of O. Reg. 419/05.

The maximum POI concentrations were calculated based on the Operating Conditions where all significant sources are operating simultaneously at their individual maximum rates of production. The maximum emission rates for each significant contaminant emitted from the significant sources were calculated in accordance with s.11 of O. Reg. 419/05 and the data quality assessment follows the process outlined in the requirements of the ESDM Procedure Document.

A POI concentration for each significant contaminant emitted from the Facility was calculated based on the calculated emission rates and the output from the approved dispersion model; the results are presented in the following Emission Summary Table in accordance s.26 of O. Reg. 419/05.

The POI concentrations listed in the Emission Summary Tables were compared against criteria listed in the ministry publication “Summary of O. Reg. 419 Standards, Point of Impingement Guidelines and Ambient Air Quality Criteria (AAQC)” dated December 2005 [List of Ministry POI Limits].

Contaminants released by the Facility that are not found on the List of MOE POI Limits are considered to be Contaminants with No Ministry POI Limits. In accordance with the requirements of the ESDM Procedure Document, these contaminants are documented in the completed copy of ministry document “Supporting Information for a Maximum Ground Level Concentration Acceptability Request Supplement to Application for Approval, EPA S.9”

Of the 11 contaminants listed in the Emission Summary Table that have limits in the List of MOE POI Limits all the predicted POI concentrations are below the corresponding limits; for example the POI concentration of xylene is 1,963 $\mu\text{g}/\text{m}^3$ at 85% of the standard of 2,300 $\mu\text{g}/\text{m}^3$. At 85% xylene that has the highest concentration relative to the corresponding MOE POI Limit. The next highest contaminant is toluene at 79%.

Emission Summary Table Acme Anytown Plant

Contaminant Name	Contaminant CAS Number	Total Facility Emission Rate g/s	Air Dispersion Model Used	Max. POI Concentration µg/m3	Averaging Period (hours)	MOE POI Limit µg/m3	Limiting Effect	Regulation Schedule #	Percentage of MOE POI Limit
Xylene	1330-20-7	9.72	Regulation 346	1,964	0.5	2,300	Odour	1	85%
Toluene	108-88-3	7.77	Regulation 346	1,570	0.5	2,000	Odour	1	79%
2-Ethoxyethyl acetate	111-15-9	0.648	Regulation 346	131	0.5	220	Odour	(G)	60%
Methyl isobutyl ketone	108-10-1	3.24	Regulation 346	655	0.5	1,200	Odour	1	55%
Methyl alcohol	67-56-1	13.0	Regulation 346	2,618	0.5	12,000	Health	1	22%
Glycol Ether EE	110-80-5	0.648	Regulation 346	131	0.5	800	Odour	(G)	16%
Trichloroethylene	79-01-6	2.27	Regulation 346	472	0.5	3,500	Interim	1	13%
Methyl ethyl ketone	78-93-3	16.2	Regulation 346	3,273	0.5	30,000	Interim	1	11%
NOx	10102-44-0	0.28	Regulation 346	32.3	0.5	500	Health	1	6%
N-butyl alcohol	71-36-3	0.648	Regulation 346	131	0.5	2,278	Odour	(G)	6%
Methylene Chloride	75-09-2	0.55	Regulation 346	111	0.5	5,300	Health	(G)	2%
2 Methylbutyl Alcohol	137-32-6	0.32	Regulation 346	65	0.5		N/A	N/A	
Amyl Alcohol	71-41-0	0.648	Regulation 346	131	0.5		N/A	N/A	
n Propoxypropanol	1569-01-3	0.648	Regulation 346	131	0.5		N/A	N/A	

Notes on Column labeled Regulation Schedule

1 refers to Standards in Schedule 1 of O. Reg. 419/05

(G) refers to criteria identified as POI Guideline in the document "Summary of O.Reg 419/05 Standards and Point of Impingement Guidelines and Ambient Air Quality Criteria(AAQCs)" dated December 2005.

N/A means that no criteria is available in the document "Summary of O.Reg 419/05 Standards and Point of Impingement and Ambient Air Quality Criteria(AAQCs)" dated December 2005, and that these contaminants have been submitted to ministry in a "Supporting Information for a Maximum Ground Level Concentration Acceptability Request Supplement to Application for Approval, EPA S.9" PIBS 4872e.

1.0 INTRODUCTION AND FACILITY DESCRIPTION

This Emission Summary and Dispersion Modelling (ESDM) Report was prepared in accordance with s.26 of O. Reg. 419/05. In addition, guidance in the ministry publication “Procedure for Preparing an Emission Summary and Dispersion Modelling Report” dated July 2005 (ESDM Procedure Document) PIBS 3614e02 was followed as appropriate.

For ease of review and to promote clarity this ESDM Report is structured to correspond to each of the items listed in the ministry publication “2005 Emission Summary and Dispersion Modelling Check-List” PIBS 5357e.

This section provides a description of the facility as required by sub paragraph 1 of s.26(1) of O. Reg. 419/05.

1.1 Purpose and Scope of ESDM Report

This ESDM Report was prepared to support an application for a Basic Comprehensive Certificate of Approval (CofA) for all sources at the facility. The ESDM report was prepared in accordance with s.26 of O. Reg. 419/05 to support the CofA application.

Acme Inc. operates a manufacturing facility located at 123 Anywhere Street, Anytown, Ontario (the Facility).

Construction of the Facility started in October of 1999. The Facility is located in an industrial zoned area.

The location of the Facility is presented in Figure 1- Site Location Plan and the land use designation of the site and surrounding area is presented in Figure 2 – Land Use Zoning Designation Plan. The location of the discharges from each of the sources is presented in Figure 3 -Site Plan and Roof Layout; the location of each of the sources is specified with the source reference number.

1.2 Description of Processes and NAICS Code(s)

Acme Inc. produces coated metal products for use in the aviation industry. The main manufacturing process consists of coating metal components with a solvent based coating. The metal parts are fabricated elsewhere; the operations at the Facility are limited to the coating process.

The North American Industry Classification System (NAICS) Code that applies to this Facility is 336410 Aerospace Product and Parts Manufacturing. Code 336410 is under code 336 Transportation Equipment Manufacturing.

1.3 Description of Products and Raw Material

The Facility produces coated metal parts. There are two production areas at the Facility: the main production booth and a smaller custom production area. There is also a research and development operation that has a small coating operation.

The coating is a resin based mixture coating containing volatile organic compounds. The coating is applied to the parts using a dip tank technique. Prior to being dipped the metal parts are wiped with a solvent mixture in a preparation booth.

The coating is received and loaded into a storage tank. When a new batch is needed, the coating is pumped in a closed-looped system to a mixing tank where very small amounts of additives are blended into the batch. The batch is then pumped to a tank which is indirectly heated by a thermal oil circuit from a natural gas fired boiler. Before the batch is heated the tank is sealed and nitrogen gas is pumped in to a pressure of 1.5 atmospheres. The tank is then heated until the mixture reaches a temperature of 130 degrees Celsius. The tank is then vented and the mixture is pumped to the coating tank.

There are also some supporting operations at the Facility, namely: natural gas fired heating and ventilating equipment, a natural gas fired boiler to heat the thermal oil and a maintenance area with some minor welding.

Product usages and process information are provided in greater detail in Appendix A - Supporting Calculations. Refer to Table 1- Sources and Contaminants Identification Table, which tabulates the individual sources of emissions at the Facility.

1.4 Process Flow Diagram

Refer to Figure 4 – Process Flow Diagram for a graphical representation of the manufacturing operation processes at the Facility.

1.5 Operating Schedule

The Facility operates from 8:30 am to 5:30 pm, seven days a week, up to 50 weeks per year. The various production processes operate up to eight hours a day.

1.6 Facility Production Limit

Since operations began in 1999, the Facility has steadily increased production through debottlenecking and process efficiency improvements. The following summarizes the yearly production of coated metal parts.

Year	Production
1999	125,986
2000	801,398
2001	944,254
2002	982,665
2003	1,045,665
2004	945,654
2005	1,101,567
2006	987,453

Based on current market demands and the current installed capacity at the Facility the projected production rate over the next 5 years will be a maximum of 1,200,000 coated metal parts per year.

2.0 INITIAL IDENTIFICATION OF SOURCES AND CONTAMINANTS

This section provides an initial identification of all of the sources and contaminants emitted at the Facility, as required by sub paragraphs 2 to 4 of s.26(1) of O. Reg. 419/05.

There may be general ventilation from the Facility that only discharges uncontaminated air from the workspaces or air from the workspace that may include contaminants that come from commercial office supplies, building maintenance products or supplies and activities; these types of ventilation sources are considered to be negligible and were not identified as sources at the Facility.

It should be noted that general ventilation located in the process area that does not vent process emissions is also considered to be negligible.

2.1 Sources and Contaminants Identification Table

Table 1 – Sources and Contaminants Identification Table tabulates all the emission sources at the Facility, for example the Main Production Line is identified as a source. Table 1 provides the information required sub paragraphs 2 to 4 of s.26(1) of O. Reg. 419/05.

The expected contaminants emitted from each source are also identified in Table 1; for example the expected contaminants emitted from the Main Production Line are identified as Volatile Organic Compounds. Each of the identified sources has been assigned a source reference number, for example the Main Production line has been designated S-1.

The location of the discharges from each of the sources is presented in Figure 3 – Site Plan and Roof Layout; the location of each of the sources is specified with the source reference number.

3.0 ASSESSMENT OF THE SIGNIFICANCE OF CONTAMINANTS AND SOURCES

This section provides an explanation for each source and contaminant identified as negligible in Table 1 – Sources and Contaminants Identification Table, as required by sub paragraph 5 of s.26(1) of O. Reg. 419/05.

In accordance with s.8 of O. Reg. 419/05 emission rate calculations and dispersion modelling does not have to be performed for emissions from negligible sources or for the emission of negligible contaminants from significant sources.

3.1 Identification of Negligible Contaminants and Sources

Of all of the 11 sources listed in Table 1 – Sources and Contaminants Identification Table, seven sources have been identified as negligible. Each negligible source is identified in the table, for example the R&D Area (S-3) has been labelled as negligible.

The remaining four sources are significant. For example, the main production line (S-1) is considered a significant source. These sources will be included in the dispersion modelling for the site.

Some contaminants from the sources that are considered significant have been identified as negligible. Each negligible contaminant from a significant source is identified in the table, for example the expected contaminants emitted from the preparation booth (S-7) are identified as acetone and methylene chloride. The emission of acetone is identified as negligible in the table. The remaining contaminant methylene chloride emitted from S-7 is considered significant.

3.2 Rationale for Assessment

For each source in Table 1 that has been identified as being negligible there is an accompanying documented rationale, for example the rationale for S-3 is Semi-Qualitative Argument. The technical information required to substantiate the argument that each of the identified sources is negligible is presented in Appendix B- Supporting Information for Assessment of Negligibility.

For each contaminant in Table 1 that has been identified as being negligible there is an accompanying rationale, for example the rationale for the conclusion that emission of acetone from source S-7 is negligible is listed as threshold calculator. The technical information required to substantiate this is presented in Appendix B – Supporting Information for Assessment of Negligibility.

4.0 OPERATING CONDITIONS, EMISSION ESTIMATING AND DATA QUALITY

This section provides a description of the operating conditions used in the calculation of the emission estimates and an assessment of the data quality of the emission estimates for each significant contaminant from the facility as required by sub paragraphs 6 and 7 of s.26(1) of O. Reg. 419/05. In accordance with s.8 of O. Reg. 419/05, emission rate calculations and dispersion modelling does not have to be performed for emissions from negligible sources or for the emission of negligible contaminants from significant sources.

4.1 Description of Operation Conditions

As noted in Section 1.2, the NAICS code for the Facility is 336410 - Aerospace Product and Parts Manufacturing. Code 336410 is under code 336 Transportation Equipment Manufacturing, which listed in Schedules 5 of Regulation 419/05. Construction of the Facility started in October of 1999.

Therefore, Section 18 of O. Reg. 419/05 currently applies to the Facility and the modelled impact to ½ hour Point of Impingement (POI) criteria can be assessed using the model in the Appendix to Regulation 346.

Section 10 of O. Reg. 419/05 states that an acceptable operating condition is a scenario that assumes operating conditions for the Facility that would result, for the relevant contaminant, in the highest concentration of the contaminant at POI that the Facility is capable of, the operating condition described in this ESDM Report meets this requirement.

The averaging time for the operating condition is a half-hour. The operating condition used for this Facility that results in the maximum concentration at a POI is the scenario where all significant sources are operating simultaneously at their individual maximum rates of production. The individual maximum rates of production for each significant source of emissions correspond to the maximum emission rate during any half-hour period. The individual maximum rates of production for each significant source of emissions are explicitly described in Appendix A – Supporting Calculations.

4.2 Explanation of the Methods Used to Calculate Emission Rates

The maximum half-hour emission rates for each significant contaminant emitted from the significant sources were calculated in accordance with requirements of the ESDM Procedure Document.

The emission rate for each significant contaminant emitted from a significant source was estimated and the methodology for the calculation is documented in Table 2 – Source Summary Table. For example, the emission of Toluene from the Main Production Line (S-1) was calculated using a mass balance (MB) technique.

4.3 Sample Calculations

The technical rationale, including sample calculations, required to substantiate the emission rates presented in Table 2 – Source Summary Table is documented in Appendix A – Supporting Calculations.

4.4 Assessment of Data Quality

This section provides a description of the assessment of the data quality of the emission estimates for each significant contaminant from the facility, as required by sub paragraph 7iii of s.26 (1) of O. Reg. 419/05.

The assessment of the data quality of the emission rate estimates for each significant contaminant emitted from the significant sources was performed in accordance with the requirements of sub paragraph 7iii of s 26(1) of the O. Reg. 419/05. For example, the mass balance (MB) technique used to calculate the emissions from S-1 is based on the assumption that 100% of the volatile components are emitted at the maximum rate that they are used. Therefore, the emission rate estimate is not likely to be an underestimate of the actual emission rate and use of these emission rates will result in a calculated concentration at a POI greater than the actual concentrations. This source was documented as having a Data Quality of “Above-Average”, which is generally acceptable according to requirements of the ESDM procedure document

For each contaminant the emission rate was estimated and the data quality of the estimate is documented in Table 2 – Source Summary Table. The assessment of data quality for each source listed in Table 2 is documented in Appendix A – Supporting Calculations.

All the emission rates listed in Table 2 are documented as having “Above Average” Data Quality and correspond to the operating scenario where all significant sources are operating simultaneously at their individual maximum rates of production. Therefore, the emission rate estimates listed in Table 2 are not likely to be an underestimate of the actual emission rates and use of these emission rates will result in a calculated concentration at POI greater than the actual concentrations.

5.0 SOURCE SUMMARY TABLE AND SITE PLAN

This section provides the table required by sub paragraph 8 and the site plan required by sub paragraph 9 of s.26(1) O. Reg. 419/05.

5.1 Source Summary Table

The emission rate estimates for each source of significant contaminants are documented in Table 2– Source Summary Table in accordance with requirements of sub paragraph 8 of s.26(1) of O. Reg. 419/05.

For each source of significant contaminants the following parameters are referenced:

- contaminant,
- Chemical Abstract Society (CAS) reference number,
- source reference number,
- source description,
- stack parameters (flow rate, exhaust temperature, diameter, height above grade, height above roof),
- location referenced to a Cartesian coordinate system presented on Figure 3 – Site Plan and Roof Layout),
- maximum emission rate,
- averaging period,
- emission estimating technique,
- estimation data quality, and
- percentage of overall emission.

5.2 Site Plan

The locations of the emission sources listed in Table 2 – Source Summary Table are presented in Figure 3 – Site Plan and Roof Layout; the location of each of the sources is specified with the source reference number. The location of the property-line is indicated on Figure 3, with the end points of each section of the property-line clearly referenced to a Cartesian coordinate system. The location of each source is referenced to this Cartesian coordinates system under a column in Table 2 – Source Summary Table.

The heights of the structures that are part of the Facility are labelled as “Roof Height” in Figure 3 – Site Plan and Roof Layout.

6.0 DISPERSION MODELLING

This section provides a description of how the dispersion modelling was conducted at the Facility to calculate the maximum concentration at a POI, as required by sub paragraphs 10 to 13 of s.26(1) of O. Reg. 419/05.

The dispersion modelling was conducted in accordance with the ministry publication “Air Dispersion Modelling Guideline for Ontario” PIBS 5165e (The ADMGO).

The Facility is subject to s. 18 of O. Reg. 419/05, therefore the modelled impact of contaminant emissions can be assessed as half-hour maximum a POI concentration. The appropriate model to assess the half-hour maximum POI impact is the model in the Appendix to Regulation 346.

The emission rates used in the dispersion model meet the requirements of Section 11(1)1 of O. Reg. 419/05, which requires that the emission rate used in the dispersion model is at least as high as the maximum emission rate that the source of contaminant is reasonably capable of for the relevant contaminant. These emission rates are further described in Appendix A – Supporting Calculations.

The Facility has one point source identified as S-10 in Figure 3 and one virtual source identified as Source A in Figure 3 – Site Plan and Roof Layout.

The length and width of Source A were determined by constructing a rectangle of best fit around the building. The height of the highest structure of the building (7.62 metres above grade) was used for the virtual source height. The height of exhaust stack serving point source S-10 is 15.3 metres above grade, which is more than twice the height of the building on which it is located.

The location of the point source, (S-10) as well as the location of the virtual source (Source A) wind centre and its width and length are shown on Figure 3. The location of the property line in relation to the dispersion modelling sources is also presented in Figure 3.

The half-hour maximum POI impact was determined using the MAXGLC module of the Ministry of the Environment dispersion modelling package.

There is no child care facility, health care facility, senior's residence, long-term care facility or an educational facility located at the Facility. Furthermore, the nearest POI is located greater than 5 metres from the building on which the point of emissions are located. As such, same structure contamination was not considered.

NO_x Emissions

NO_x is emitted from both the specific point source and from many separate sources associated with the virtual source. A model run with the specific NO_x emission rates associated with the point and virtual source was conducted. The result was a predicted maximum concentration of 32.33 µg/m³ at the property line.

Other Contaminants

All other contaminants are emitted only from the virtual source, Source A. Therefore, the Facility was modelled using an emission rate of 1 g/s. The result was a predicted maximum concentration of 202.08 µg/m³ at the property line for each 1 g/s emission of a contaminant, this ratio is known as a Dispersion Factor. To calculate the maximum concentration at the property line POI for each emitted substance, the virtual source Dispersion Factor was multiplied by the emission rate of that substance. For example, the total emission of toluene from the Facility (associated with Source A) is 7.77 g/s which multiplied by 202.08 results in 1570 µg/m³.

6.1 Dispersion Modelling Input Summary Table

A description of the way in which the approved dispersion model was performed is included as Table 3 – Dispersion Modelling Input Summary Table. This table meets both the requirements of s.26(1)11 and sections 8-17 of O. Reg. 419/05 and follows the format provided in the ESDM Procedure Document.

6.2 Land Use Zoning Designation Plan

Sub paragraph 10 of s.26(1) of O. Reg. 419/05 requires a description of the local land use conditions if meteorological data described in paragraph 2 of s.13(1) of O. Reg. 419/05 was used. The dispersion modelling at the site did not use meteorological data described in paragraph 2 of s.13(1) therefore a description of the local land use conditions **is not required**. However, Figure 2 – Land Use Zoning Designation Plan does describe the nearby land use.

6.3 Dispersion Modelling Input and Output Files

The information inputted into the approved dispersion model is recorded in Appendix C – Dispersion Modelling Printouts. Appendix C also includes a print-out of the input and output from the approved dispersion model; there are two modelling runs presented, one titled VOC emissions and the other NOx Emissions.

Electronic copies of the input files for the model in the Appendix to Regulation 346 have not been submitted with this report.

7.0 EMISSION SUMMARY TABLE AND CONCLUSIONS

This section provides the table required by sub paragraph 14 of s.26(1) of O. Reg. 419/05 and provides an interpretation of the results as required by the ESDM Procedure Document.

7.1 Emission Summary Table

A POI concentration for each significant contaminant emitted from the Facility was calculated based on the emission rates listed Table 2 – Source Summary Table and the output from the approved dispersion model presented in Appendix C. The results are presented in Table 4 – Emission Summary Table. This Table follows the format provided in the ESDM Procedure Document. For each source of significant contaminants the following parameters are referenced:

- contaminant name
- Chemical Abstract Society (CAS) reference number
- Total facility emission rate
- approved dispersion model used,
- maximum POI concentration
- averaging period for the dispersion modelling
- MOE POI limit
- indication of the limiting effect
- schedule in Regulation 419/05 and
- the percentage of standard or indication of the likelihood of an adverse effect.

The POI concentrations listed in Table 4 were compared against criteria listed in the publication “Summary of O. Reg. 419 Standards, Point of Impingement Guidelines and Ambient Air Quality Criteria (AAQC)” dated December 2005 [List of Ministry POI Limits].

Of the 11 contaminants listed in Table 4 that have limits in the List of MOE POI Limits all the predicted POI concentrations are below the corresponding limits; for example the POI concentration of xylene is 1,963 µg/m³ at 85% of the standard of 2,300 µg/m³. At 85% xylene that has the highest concentration relative to the corresponding MOE Limit. The next highest contaminant is toluene at 79%.

7.2 Assessment of Contaminants with no MOE POI Limits

Sub paragraph 14 subsection viii of s.26(1) O. Reg. 419/05 requires an indication of the likelihood, nature and location of any adverse effect if the contaminant is not listed in any of Schedules 1, 2 and 3.

Three contaminants 2 Methylbutyl Alcohol, Amyl Alcohol and n-Propoxypropanol do not have corresponding criteria limits in the List of MOE POI Limits and are considered to be Contaminants with No Ministry POI Limits. In accordance with the requirements of the ESDM Procedure Document these three contaminants are documented in the completed copy of MOE document “Supporting Information for a Maximum Ground Level Concentration Acceptability Request Supplement to Application for Approval, EPA S.9”, which has been submitted to the

ministry as part of an application for a Certificate of Approval (Air). No further assessment has been completed for these contaminants.

7.3 Conclusions

This ESDM Report was prepared in accordance with s.26 of O. Reg. 419/05. In addition guidance in the ESDM Procedure Document was followed as appropriate.

The Facility is subject to s. 18 of O. Reg. 419/05, therefore the modelled impact of contaminant emissions can be assessed as a half-hour maximum POI concentration. The appropriate model to assess the half-hour maximum POI impact is the model in the Appendix to Regulation 346.

The emission rate estimates for each source of significant contaminants are documented in Table 2 – Source Summary Table. All the emission rates listed in Table 2 are documented as having a Data Quality of “Above Average” and correspond to the operating scenario where all significant sources are operating simultaneously at their individual maximum rates of production. Therefore these emission rate estimates listed in Table 2 are not likely to be an underestimate of the actual emission rates.

A POI concentration for each significant contaminant emitted from the Facility was calculated based on the calculated emission rates and the output from the model in the Appendix to Regulation 346; the results are presented in Table 4 - Emission Summary Table

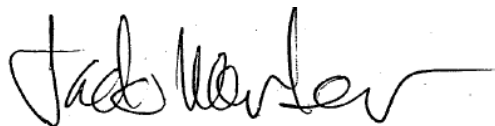
The POI concentrations listed in Table 4 were compared against criteria listed in the publication “Summary of O. Reg. 419 Standards, Point of Impingement Guidelines and Ambient Air Quality Criteria (AAQC)” dated December 2005 [List of Ministry POI Limits].

Of the 11 contaminants listed in Table 4 that have limits in the List of MOE POI Limits all the predicted POI concentrations are below the corresponding limits; for example the POI concentration of xylene is 1,963 $\mu\text{g}/\text{m}^3$ at 85% of the standard of 2,300 $\mu\text{g}/\text{m}^3$. At 85% xylene that has the highest concentration relative to the corresponding MOE Limit. The next highest contaminant is toluene at 79%.

The remaining three contaminants 2 Methylbutyl Alcohol, Amyl Alcohol and n-Propoxypropanol do not have corresponding criteria limits in the List of MOE POI Limits and are considered to be Contaminants with No Ministry POI Limits. In accordance with the requirements of the ESDM Procedure Document these three contaminants are documented in the completed copy of MOE document "Supporting Information for a Maximum Ground Level Concentration Acceptability Request Supplement to Application for Approval, EPA S.9" which has been submitted to the ministry as part of an application for a Certificate of Approval (Air).

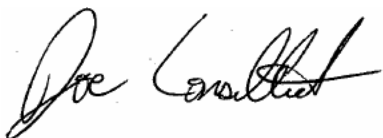
This ESDM Report demonstrates that the Facility can operate in compliance with O. Reg. 419/05.

Prepared by:

A handwritten signature in black ink, appearing to read "Jack Worker". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Jack Worker
P.E.S Stacks Inc.

Approved by:

A handwritten signature in black ink, appearing to read "Joe Consultant". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Joe Consultant
P.E.S Stacks Inc.

Table 1
Sources and Contaminants Identification Table
Acme Anytown Plant

Source Information			Expected Contaminants	Significant (Yes or No?)	Rationale
Source ID	Source Description	Location			
S-1	Main Production Line	Source A	Volatile Organic Compounds	Yes	
			Speciality Additives	No	Deminimus (See Appendix B)
			Ethanol, Isopropyl alcohol	No	Threshold Calculator (See Appendix B)
S-2	Custom Production Area	Source A	Volatile Organic Compounds	Yes	
			Speciality Additives	No	Deminimus (See Appendix B)
			Ethanol, Isopropyl alcohol	No	Threshold Calculator (See Appendix B)
S-3	R&D Area	Source A	Volatile Organic Compounds	No	Sources that are Insignificant Relative to Total Emissions
					This line uses the same type of material as the main production line but at a much lower rate of 1kg/hour compared to 212 kg/hour (See Appendix B)
S-4	Repair Booth	Source A	Volatile Organic Compounds	No	Sources that are Insignificant Relative to Total Emissions This line uses the same type of material as the main production line but at a much lower rate of 2.1kg/hour compared to 212 kg/hour (See Appendix B)
S-5	Maintenance Shop	Source A	Welding Fumes	No	Listed in Table B3 of the ESDM Procedure Document
S-6	Nitrogen Blanket Tank	Source A	Nitrogen	No	Listed in Table B3 of the ESDM Procedure Document
S-7	Preparation Booth	Source A	Acetone	No	Threshold Calculator
			Methylene Chloride	Yes	See Appendix B
S-8	Coating Storage Tanks	Source A	Volatile Organic Compounds	No	Sources that are Insignificant Relative to Total Emissions (See Appendix B) These tanks store the material used in the main production line. The losses while filling will be much lower than the emissions from the main production line. (See Appendix B)
S-9	Coating Mixing Tank	Source A	Volatile Organic Compounds	No	Sources that are Insignificant Relative to Total Emissions This tank is used to mix up the material before use, the losses while filling will be much lower than the emissions from the main production line (See Appendix B)
S-10	Natural Gas Combustion and Heating Equipment	Source A S-10 (H-17)	Products of combustion	Yes	Only NOx Emissions (See Appendix B)
	Roads, Parking Lot		Dust	No	Not listed in Table 7-2 or 7-3 of Section 7.4 of the ESDM Procedure Document (See Appendix B)
S-11	General Ventilation	Process Area	None	No	Process emissions are not emitted through general ventilation and as such, have not been presented on Figure 3

Table 2
Source Summary Table
Acme Anytown Plant

Contaminant	CAS #	Source Data								Emission Data				
		Source ID	Source Description	Stack Volumetric Flow Rate (Am3/s)	Stack Exit Gas Temperature (oC)	Stack Inner Diameter	Stack Height Above Grade (m)	Stack Height Above Roof (m)	Source Coordinates (x,y) (m)	Maximum Emission Rate (g/s)	Averaging Period (hours)	Emission Estimating Technique	Emissions Data Quality	% of Overall Emissions (%)
						(m)								
Toluene	108-88-3	S-1	Main Production Line	5.3	35	0.6	7.2	1	7,30	7.07	0.5	MB	Above-Average	90.9%
		S-2	Custom Production Area	3.2	30	0.45	6.9	0.7	78,48	0.707	0.5	MB	Above-Average	9.1%
Xylene	1330-20-7	S-1	Main Production Line	5.3	35	0.6	7.2	1	7,30	8.83	0.5	MB	Above-Average	90.9%
		S-2	Custom Production Area	3.2	30	0.45	6.9	0.7	78,48	0.883	0.5	MB	Above-Average	9.1%
Methyl isobutyl ketone	108-10-1	S-1	Main Production Line	5.3	35	0.6	7.2	1	7,30	2.94	0.5	MB	Above-Average	90.9%
		S-2	Custom Production Area	3.2	30	0.45	6.9	0.7	78,48	0.294	0.5	MB	Above-Average	9.1%
Methyl alcohol	67-56-1	S-1	Main Production Line	5.3	35	0.6	7.2	1	7,30	11.8	0.5	MB	Above-Average	90.9%
		S-2	Custom Production Area	3.2	30	0.45	6.9	0.7	78,48	1.18	0.5	MB	Above-Average	9.1%
2-Ethoxyethyl acetate	111-15-9	S-1	Main Production Line	5.3	35	0.6	7.2	1	7,30	0.589	0.5	MB	Above-Average	90.9%
		S-2	Custom Production Area	3.2	30	0.45	6.9	0.7	78,48	0.0589	0.5	MB	Above-Average	9.1%
Trichloroethylene	79-01-6	S-1	Main Production Line	5.3	35	0.6	7.2	1	7,30	2.06	0.5	MB	Above-Average	90.9%
		S-2	Custom Production Area	3.2	30	0.45	6.9	0.7	78,48	0.206	0.5	MB	Above-Average	9.1%
Glycol Ether EE	110-80-5	S-1	Main Production Line	5.3	35	0.6	7.2	1	7,30	0.589	0.5	MB	Above-Average	90.9%
		S-2	Custom Production Area	3.2	30	0.45	6.9	0.7	78,48	0.0589	0.5	MB	Above-Average	9.1%
Methyl ethyl ketone	78-93-3	S-1	Main Production Line	5.3	35	0.6	7.2	1	7,30	14.7	0.5	MB	Above-Average	90.9%
		S-2	Custom Production Area		30	0.45	6.9	0.7	78,48	1.47	0.5	MB	Above-Average	9.1%
N-butyl alcohol	71-36-3	S-1	Main Production Line	5.3	35	0.6	7.2	1	7,30	0.589	0.5	MB	Above-Average	90.9%
		S-2	Custom Production Area	3.2	30	0.45	6.9	0.7	78,48	0.0589	0.5	MB	Above-Average	9.1%
2 Methylbutyl Alcohol	137-32-6	S-1	Main Production Line	5.3	35	0.6	7.2	1	7,30	0.294	0.5	MB	Above-Average	90.9%
		S-2	Custom Production Area	3.2	30	0.45	6.9	0.7	78,48	0.0294	0.5	MB	Above-Average	9.1%
Amyl Alcohol	71-41-0	S-1	Main Production Line	5.3	35	0.6	7.2	1	7,30	0.589	0.5	MB	Above-Average	90.9%
		S-2	Custom Production Area	3.2	30	0.45	6.9	0.7	78,48	0.0589	0.5	MB	Above-Average	9.1%
n Propoxypropanol	1569-01-3	S-1	Main Production Line	5.3	35	0.6	7.2	1	7,30	0.589	0.5	MB	Above-Average	90.9%
		S-2	Custom Production Area	3.2	30	0.45	6.9	0.7	78,48	0.0589	0.5	MB	Above-Average	9.1%
Methylene Chloride	75-09-02	S-7	Preparation Booth	3.2	30	0.45	6.9	0.7	78,48	0.55	0.5	MB	Above-Average	100.0%
NOx	10102-44-0	S-10 (H1-H16)	Natural Gas Combustion and Heating Equipment	-	-	variable	variable	variable	variable	0.16	0.5	EF	Above-Average	57.1%
		S-10 (H17)		-	137	0.5	15.3	9.2	64,93	0.12	0.5	EF	Above-Average	42.9%

Table 3
Dispersion Modelling Input Summary Table
Acme Anytown Plant

Relevant Section of the Regulation	Section Title	Description of How the Approved Dispersion Model was Used
Section 8	Negligible Sources	Sources and contaminants that were considered negligible were explicitly identified, and therefore were not modelled, in accordance with s.8 of O. Reg. 419. See Table 1 - Sources and Contaminants Identification Table and Appendix B of the ESDM Report for more information.
Section 9	Same Structure Contamination	Not applicable as Acme Inc. is the only tenant occupying the building, and does not have a child care facility, health care facility, senior's residence, long-term care facility or an educational facility located at the Facility.
Section 10	Operating Conditions	All equipment was assumed to be operating at the maximum production rates at the same time. See section 4.1 and Appendix A of the ESDM Report.
Section 11	Source of Contaminant Emission Rates	The emission rate for each significant contaminant emitted from a significant source was estimated, the methodology for the calculation is documented in Table 2 – Source Summary Table. See section 4.1 and section 4.2 and Appendix A of the ESDM Report for more information.
Section 12	Combined Effect of Assumptions for Operating Conditions and Emission Rates	The Operating Conditions were estimated in accordance with s.10(1) 1 and s.11(1) 1 of O. Reg. 419 and are therefore considered to result in the highest concentration at POI that the Facility is capable of for the contaminants emitted. See section 4.1 and section 4.2 of the ESDM Report.
Section 13	Meteorological Conditions	Not applicable as the models in the Appendix to O. Reg. 346 were used.
Section 14	Area of Modelling Coverage	Not applicable as the models in the Appendix to O. Reg. 346 were used.
Section 15	Stack Height for Certain New Sources of Contaminant	Not applicable as s.15 of O. Reg. 419/05 does not apply to the Facility.
Section 16	Terrain Data	Not applicable as the models in the Appendix to O. Reg. 346 were used.
Section 17	Averaging Periods	Maximum ½ hour emission rates were used with the models in the Appendix to O. Reg. 346.

Table 4
Emission Summary Table
Acme Anytown Plant

Contaminant Name	Contaminant CAS Number	Total Facility Emission Rate g/s	Air Dispersion Model Used	Max. POI Concentration µg/m3	Averaging Period (hours)	MOE POI Limit µg/m3	Limiting Effect	Regulation Schedule #	Percentage of MOE POI Limit
Xylene	1330-20-7	9.72	Regulation 346	1,964	0.5	2,300	Odour	1	85%
Toluene	108-88-3	7.77	Regulation 346	1,570	0.5	2,000	Odour	1	79%
2-Ethoxyethyl acetate	111-15-9	0.648	Regulation 346	131	0.5	220	Odour	(G)	60%
Methyl isobutyl ketone	108-10-1	3.24	Regulation 346	655	0.5	1,200	Odour	1	55%
Methyl alcohol	67-56-1	13.0	Regulation 346	2,618	0.5	12,000	Health	1	22%
Glycol Ether EE	110-80-5	0.648	Regulation 346	131	0.5	800	Odour	(G)	16%
Trichloroethylene	79-01-6	2.27	Regulation 346	472	0.5	3,500	Interim	1	13%
Methyl ethyl ketone	78-93-3	16.2	Regulation 346	3,273	0.5	30,000	Interim	1	11%
NOx	10102-44-0	0.28	Regulation 346	32.3	0.5	500	Health	1	6%
N-butyl alcohol	71-36-3	0.648	Regulation 346	131	0.5	2,278	Odour	(G)	6%
Methylene Chloride	75-09-2	0.55	Regulation 346	111	0.5	5,300	Health	(G)	2%
2 Methylbutyl Alcohol	137-32-6	0.32	Regulation 346	65	0.5		N/A	N/A	
Amyl Alcohol	71-41-0	0.648	Regulation 346	131	0.5		N/A	N/A	
n Propoxypropanol	1569-01-3	0.648	Regulation 346	131	0.5		N/A	N/A	

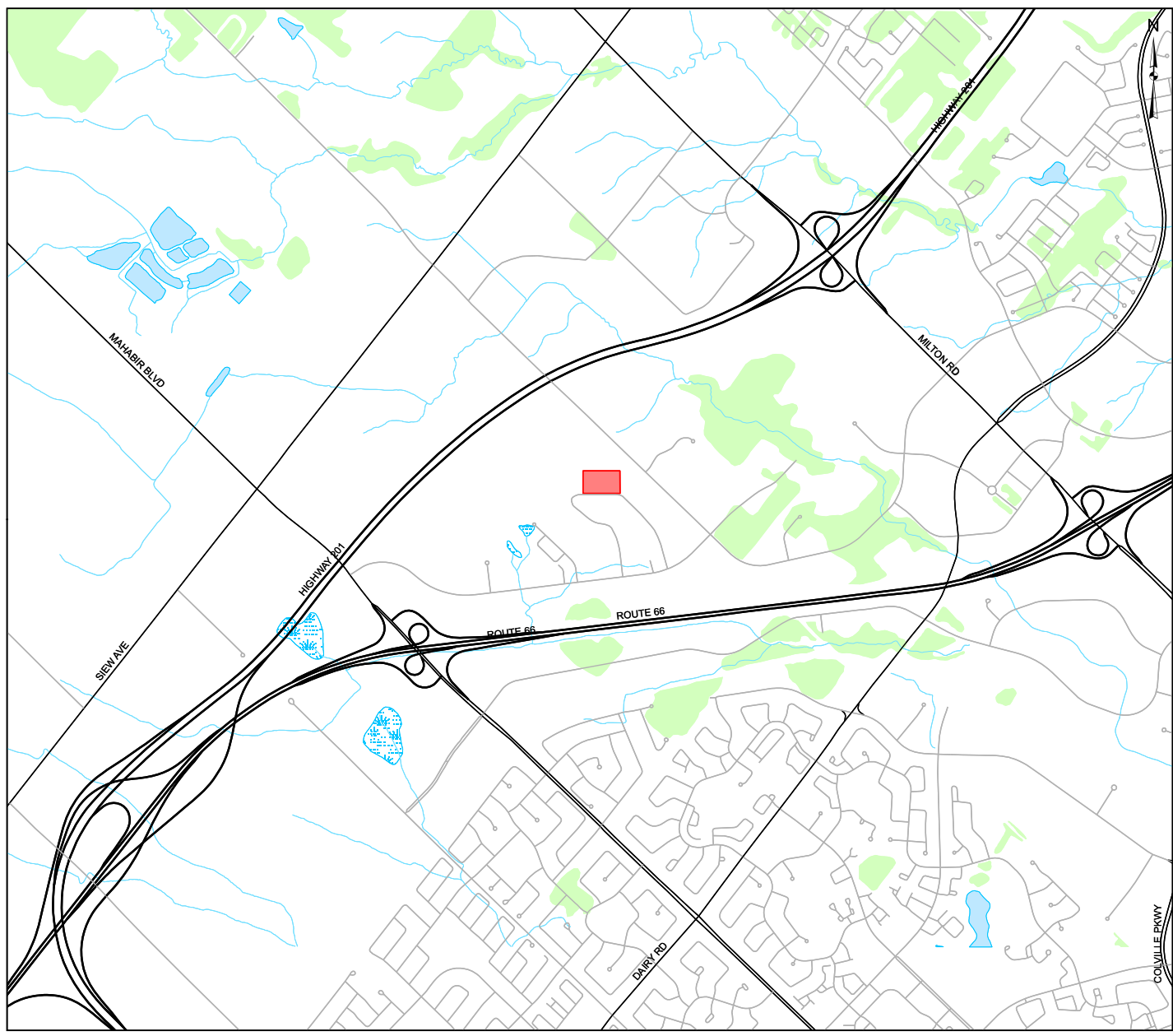
Notes on Column labeled Regulation Schedule #

1 refers to Standards in Schedule 1 of O. Reg. 419/05

(G) refers to criteria identified as POI Guideline in the document "Summary of O.Reg 419/05 Standards and Point of Impingement Guidelines and Ambient Air Quality Criteria(AAQCs)" dated December 2005.

N/A means that no criteria is available in the document "Summary of O.Reg 419/05 Standards and Point of Impingement and Ambient Air Quality Criteria(AAQCs)" dated December 2005, and that these contaminants have been submitted to ministry in a "Supporting Information for a Maximum Ground Level Concentration Acceptability Request Supplement to Application for Approval, EPA S.9" PIBS 4872e.

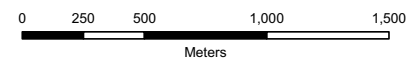
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- LEGEND**
- Highway
 - Major Road
 - Local Road
 - Watercourse
 - Waterbody
 - Wetland
 - Woodlot
 - Property Boundary

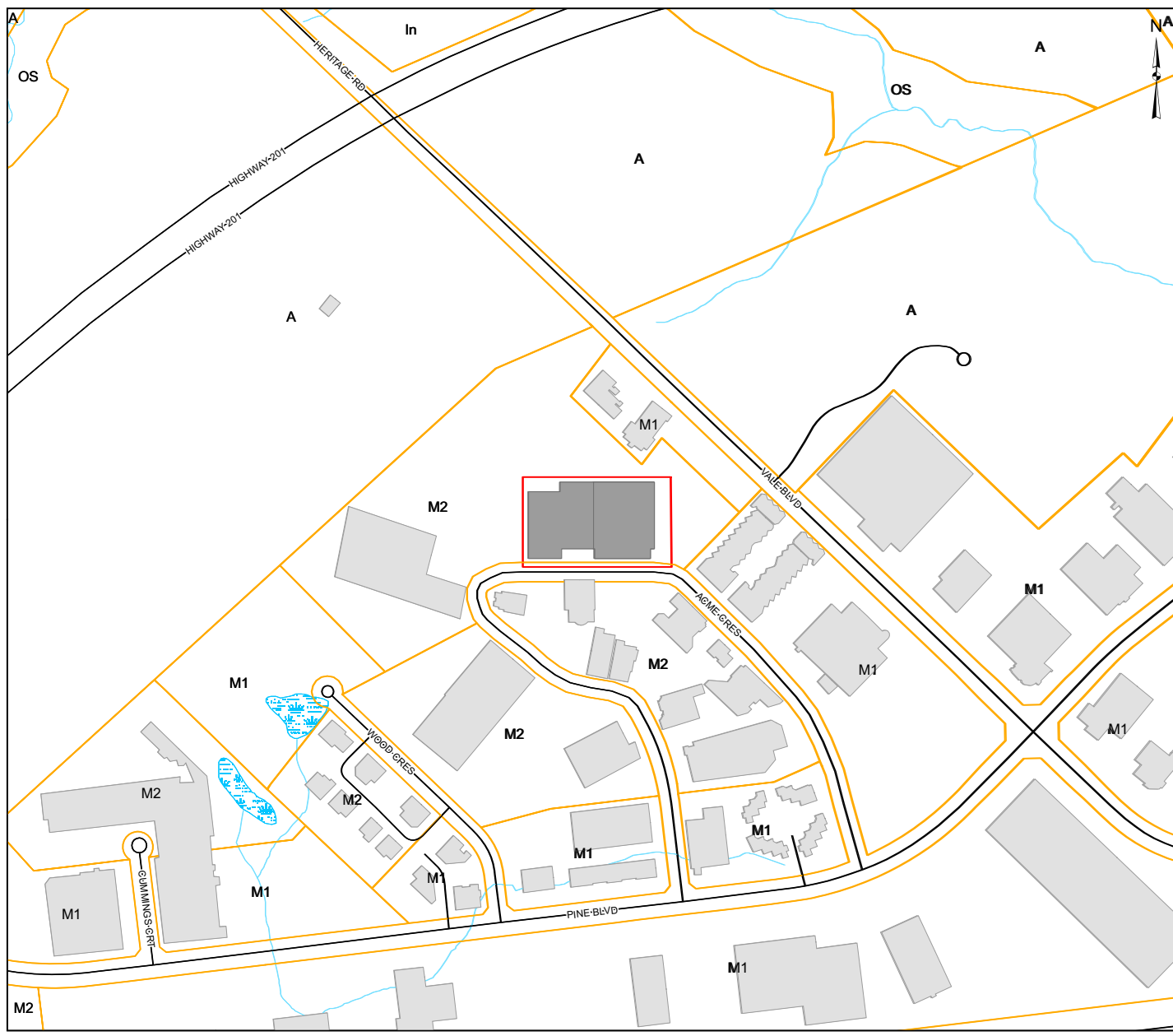


REFERENCE
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PROJECT				
EMISSION SUMMARY & DISPERSION MODELLING REPORT				
ACME INC., ACME ANYTOWN PLANT				
TITLE				
SITE LOCATION PLAN				
	PROJECT No. 07-5555-411		SCALE 1:20,000	Ver. 1.0
	DESIGN	PRM	17 Jan 2007	
	GIS	PRM	09 Feb. 2007	
	CHECK	JW	09 Feb. 2007	
	REVIEW	JC	09 Feb. 2007	

FIGURE: 1



LEGEND

- Road
- Watercourse
- Waterbody
- Wetland
- Building Footprint
- Site Location
- Property Line
- Zoning Boundary

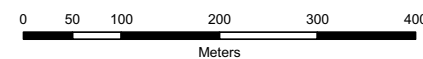
Zoning Description

- A - Agricultural
- In - Inter (Controlled by Bylaws)
- M1 - Industrial (Limited Outside Storage)
- M2 - Industrial (Outside Storage)
- OS - Open Space



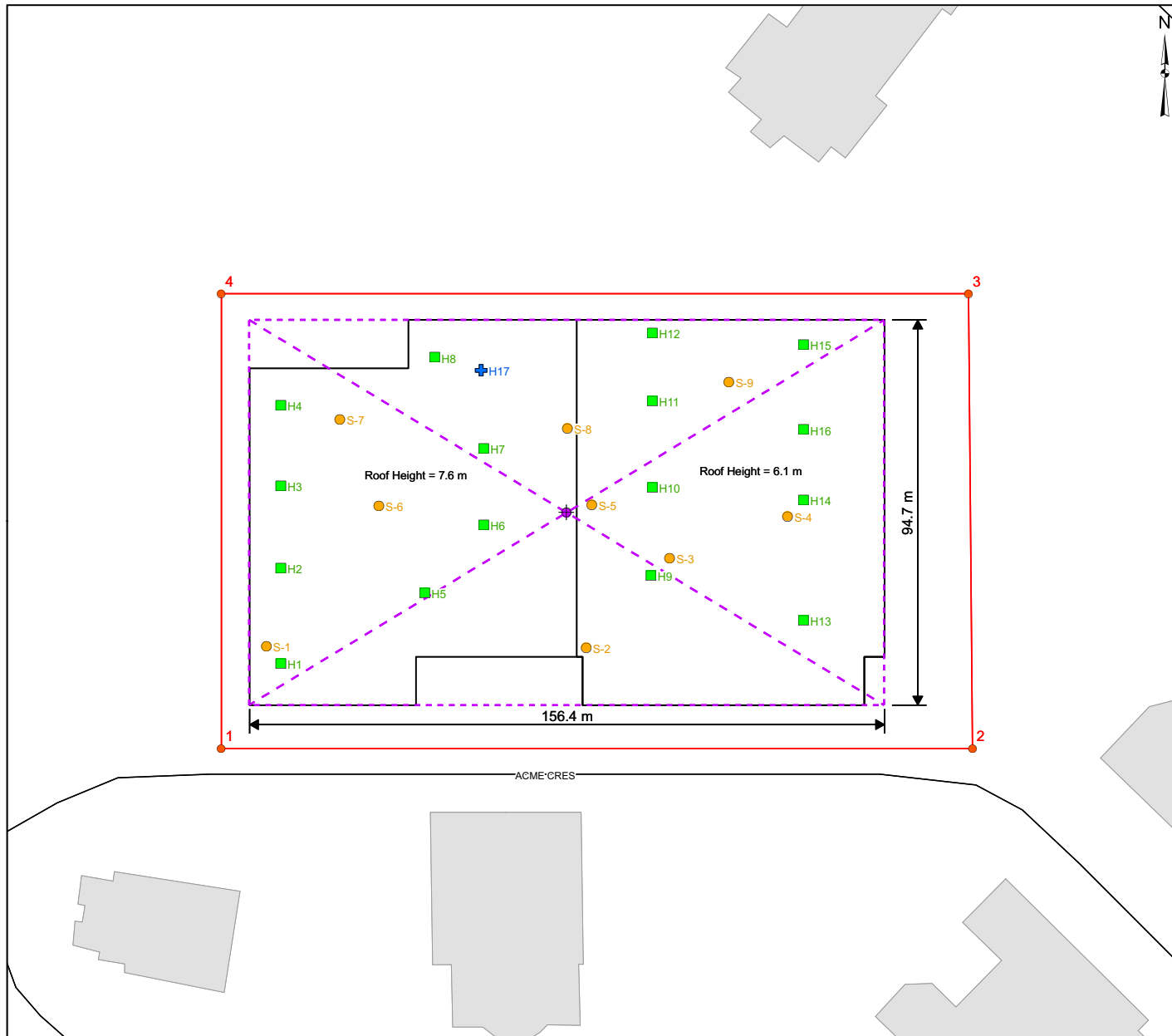
REFERENCE

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 Zoning Data - Obtained from the City of Anywhere, October 2006



PROJECT			
EMISSION SUMMARY & DISPERSION MODELLING REPORT			
ACME INC., ACME ANYTOWN PLANT			
TITLE			
LANDUSE ZONING DESIGNATION PLAN			
	PROJECT No: 07-5555-411		SCALE 1:5,000
	DESIGN	PRM	17 Jan. 2007
	GIS	PRM	09 Feb. 2007
	CHECK	JW	09 Feb. 2007
	REVIEW	JC	09 Feb. 2007
			FIGURE: 2

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LEGEND

- Process Vent / Stack
- HVAC Stack
- Boiler Stack
- Virtual Source Centroid
- Road
- Watercourse
- Waterbody
- Wetland
- Building Footprint
- Virtual Source
- Property Boundary
- Site Location

PROPERTY LINE COORDINATES

- 1 - (0, 0)
- 2 - (185, 0)
- 3 - (184, 112)
- 4 - (0, 112)

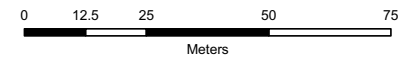
VIRTUAL SOURCE CENTROID COORDINATES

(85, 58)



REFERENCE

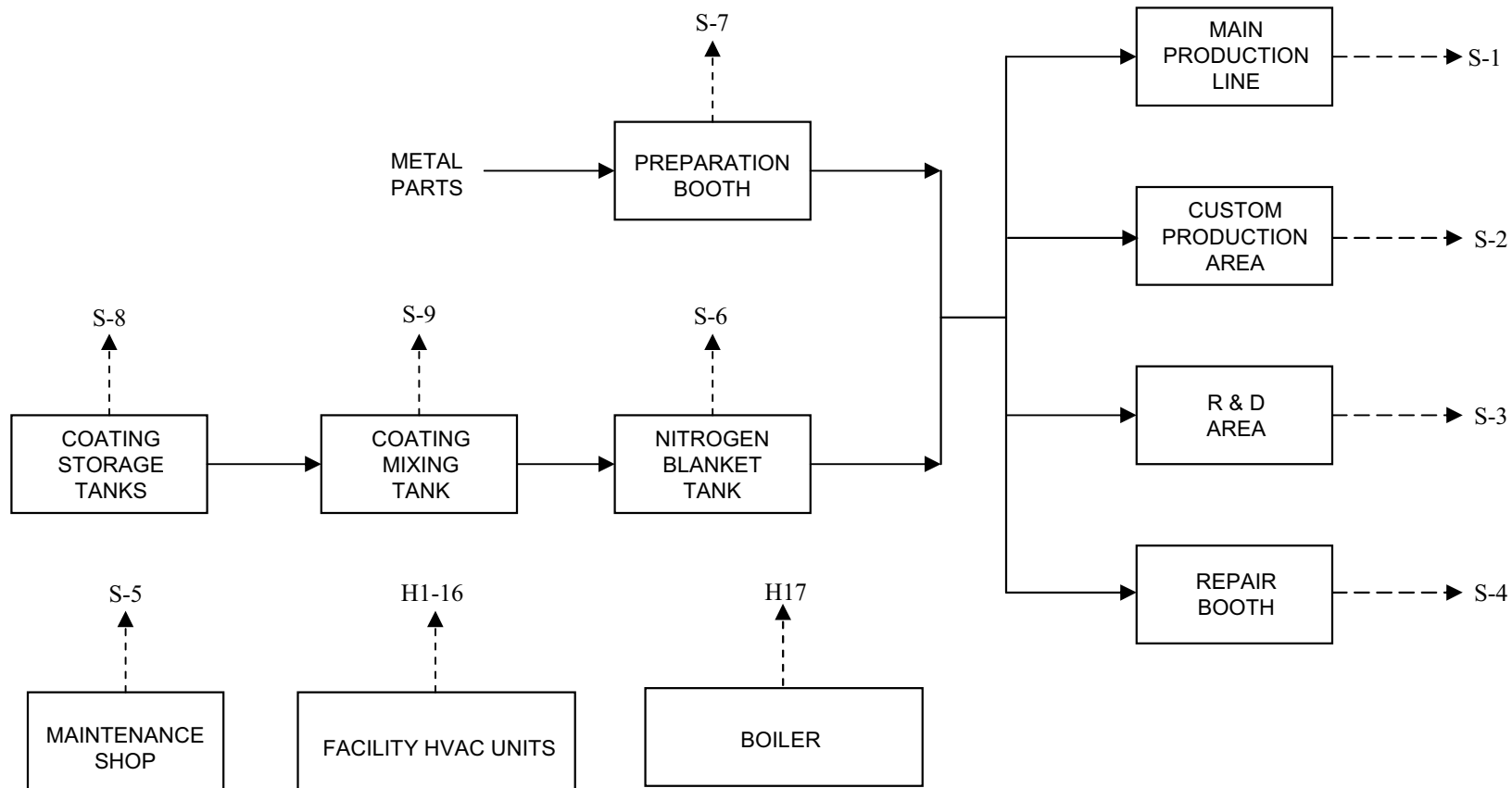
Produced by P.E.S. Stacks Inc under licence from Ontario Ministry of Natural Resources, © Queens Printer 2006



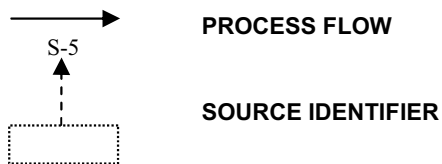
PROJECT			
EMISSION SUMMARY & DISPERSION MODELLING REPORT			
ACME INC., ACME ANYTOWN PLANT			
TITLE			
SITE PLAN AND ROOF LAYOUT			
	PROJECT No. 07-5555-411		
	DESIGN	PRM	17 Jan 2007
	GIS	PRM	09 Feb 2007
	CHECK	JW	09 Feb 2007
REVIEW			JC 09 Feb 2007
SCALE 1:1,000			Ver. 1.0
FIGURE 3			

**PROCESS FLOW DIAGRAM
EMISSION SUMMARY AND DISPERSION MODELLING REPORT
ACME INC., ACME ANYTOWN PLANT, ONTARIO**

FIGURE 4



LEGEND:



NOTES:

1. This schematic represents the major processes taking place at the Facility. Simple processes such as maintenance, QA/QC procedures, backup operational procedures, and parts-washing have not been represented.

Appendix A
Acme Anytown Plant, Project 07-5555-411

Supporting Calculations

Usage Rates

The following maximum usage rates correspond to the operating conditions that would result in the maximum half-hour emission rate in accordance with s.10 and s.11 of O. Reg. 419/05.

Source Designation	Description	Usage Rate
S-1	Main Production Line	212 kg/hr of coating
S-2	Custom Production Station	21.2 kg/hr of coating
S-3	R&D Area	1 kg/hr of coating
S-4	Repair Booth	2.12 kg/hr of coating
S-5	Maintenance Shop	28 g/hr of coating
S-6	Nitrogen Blanket Tank	30 kg of nitrogen in 20 min.
S-7	Prep Area	2 kg/hr of acetone
		1 kg per 15 minutes methylene chloride
S-8	Storage Tanks	570 tonnes/year of coating
S-9	Mixing Tank	236 kg/hr of coating
S-10	HVAC	22,700,000 btu/hr of natural gas

List of Combustion Equipment

Equipment Identification	Ratings BTUs/hr
H1- Heater	800,000
H2- Heater	800,000
H3- Heater	800,000
H4- Heater	800,000
H5- Heater	800,000
H6- Heater	800,000
H7- Heater	800,000
H8- Heater	800,000
H9- Heater	800,000
H10- Heater	800,000
H11- Heater	800,000
H12- Heater	800,000
H13- Heater	800,000
H14- Heater	800,000
H15- Heater	800,000
H16- Hot Water Tank	800,000
H17- Boiler	9,900,000
TOTAL	22,700,000

Appendix A
Acme Anytown Plant, Project 07-5555-411

Sources S-1, S-2:

Methodology: Mass Balance (MB)

The coating used in the process is made of a mixture of a non-volatile resin mixed with a solvent matrix. Emission rates are estimated by multiplying the usage rate on mass per time basis by the percentage by weight in the various coatings and assuming that 100% of the volatile components are emitted to the atmosphere at the same rate as they are applied and that none of the non-volatile components are emitted. A very small amount of a specialty additive are mixed with the coating prior to the dipping process.

The weight percentage in the coatings is documented in a theoretical or maximum case composite coating consisting of all compounds listed on all coating used at the facility MSDS Sheets at the highest percentage quoted. The following table presents the maximum concentrations of the volatile components in the coatings.

Theoretical Composite Coating

Contaminant	CAS Number	Weight Percentage
Toluene	108-88-3	12.0%
Xylene	1330-20-7	15.0%
Methyl isobutyl ketone	108-10-1	5.0%
Methyl alcohol	67-56-1	20.0%
2-Ethoxyethyl acetate	111-15-9	1.0%
Trichloroethylene	79-01-6	3.5%
Glycol Ether EE	110-80-5	1.0%
Methyl ethyl ketone	78-93-3	25.0%
Isopropyl alcohol	67-63-0	1.0%
Ethanol	64-17-5	1.0%
N-butyl alcohol	71-36-3	1.0%
2 Methylbutyl Alcohol	137-32-6	0.5%
Amyl Alcohol	71-41-0	1.0%
n Propoxypropanol	1569-01-3	1.0%

Sample Calculation: Toluene emission from S-1

$$212 \frac{kg}{hr} * 1000 \frac{g}{kg} * \frac{1}{3600} \frac{hr}{s} * 12\% = 7.07 \frac{g}{s}$$

Appendix A
Acme Anytown Plant, Project 07-5555-411

Sources S-1, S-2: continued

Data Quality: Above Average

Section 8.3.2 of the ESDM Procedure Document titled “Above-Average Data Quality” Emission Estimating Techniques, includes mass balance calculations that are based on 100% of the material being emitted to atmosphere and an averaging time similar to the averaging time for the air quality standard.

Operating Condition, Individual Maximum Rates of Production:

The emission rate calculations for these sources are based on the individual maximum rates of 212 kg/hr for S-1 and 21.2 kg/hr for S-2.

Source S-7:

Methodology: Mass Balance (MB)

During the preparation process 1 kg of 100% methylene chloride is used for a 15 minute period, no other materials are used in the preparation area. While the methylene chloride is used only for 15 minutes the entire preparation process takes 30 minutes. It is assumed that all the methylene chloride is volatilized and emitted to the atmosphere. The emission takes place over 15 minutes but since the impact is being assessed against a half-hour POI impact it is permissible to average that emission rate over half an hour.

Sample Calculation: Methylene Chloride emission from S-7

$$\frac{1 \text{ kg}}{30 \text{ min}} * 1000 \frac{\text{g}}{\text{kg}} * \frac{1 \text{ min}}{60 \text{ s}} = 0.55 \frac{\text{g}}{\text{s}}$$

Data Quality: Above Average

Section 8.3.2 of the ESDM Procedure Document titled “Above-Average Data Quality” Emission Estimating Techniques, includes mass balance calculations that are based on 100% of the material being emitted to atmosphere and an averaging time similar to the averaging time for the air quality standard.

Operating Condition, Individual Maximum Rates of Production:

The emission rate calculation for this source is based on a maximum rate of 1 kg per half hour.

Appendix A
Acme Anytown Plant, Project 07-5555-411

Source S-10:

Methodology: Emission Factor (EF)

USEPA Chapter 1.4, Natural Gas Combustion, External Sources for boilers of less than 100 MMBtu/hr emission factor is 100 pounds of NO_x per million standard cubic feet. The USEPA quotes this emission factor as having a quality rating of “B”.

Sample Calculation: H17-Boiler

$$9,900,000 \frac{Btu}{hr} * \frac{100 \text{ lb}}{10^6 \text{ scf}} * \frac{10^6}{1020 \text{ MMBtu}} * \frac{scf}{10^6 \text{ Btu}} * \frac{MMbtu}{10^6 \text{ Btu}} * \frac{1hr}{3600s} * \frac{1000g}{2.205lb} = 0.122 \frac{g}{s}$$

Data Quality: Above Average

Section 8.3.2 of the ESDM Procedure Document titled “Above-Average Data Quality” Emission Estimating Techniques includes emission factor calculations with USEPA emission factor quality ratings of “A” or “B”.

Operating Condition, Individual Maximum Rates of Production:

The emission rate calculation for this source is based on each piece of combustion equipment operating simultaneously at its maximum firing rate.

Appendix B
Acme Anytown Plant, Project 07-5555-411
Supporting Information for Assessment of Negligibility
Acme Inc.

Sources were screened for negligibility using the following screening protocols listed in the ESDM Procedure Document

- Fugitive dust from on-site roadways (Section 7.4.)
- Combustion of natural gas and propane (Section 7.1.1)
- Sources listed on Table B-3 (Section 7.2.1)
- Sources that are insignificant relative to total emissions (Section 7.2.2)
- Generalized guidance to identifying Insignificant or Significant Sources and Contaminants (Section 7.3)
- Identifying significant contaminants using an emission threshold (Section 7.1.2)

The results of the screening are discussed in greater detail in the following text.

Fugitive Road Dust:

The Facility is not listed in Table 7-2 or 7-3 of Section 7.4 of the ESDM Procedure Document and accordingly dust emissions from these sources can be considered as insignificant.

Combustion of Natural Gas and Propane:

As per Section 7.1.1 of the ESDM Procedure Document, contaminants other than NO_x are generally considered negligible from this type of source and only NO_x has been assessed for Source S-10.

Appendix B
Acme Anytown Plant, Project 07-5555-411

Sources Listed on Table B-3

Table B-3 of the ESDM Procedure Document lists sources that can be considered to be insignificant; the following sources at the Facility are listed on Table B-3.:

Maintenance welding performed at Source S-5 Maintenance Shop is listed on Table B-3.

Nitrogen venting from Source S-6 Nitrogen Blanket Tank is listed on Table B-3.

Sources that are Insignificant Relative to Total Emissions:

The ministry has provided additional guidance to the Generalized Guidance in Chapter 7.3 of ESDM Procedure Document through the O. Reg. 419/05 Q&A process regarding Semi Qualitative Correlative Assessments (Q8-7 Round 2 March 10, 2006).

In general using this guidance a source may be considered negligible if the emissions from one source of contaminants are similar (same contaminants and same relative proportions of contaminants) to another source of contaminants *and* one of the sources would have much higher emissions rates than the other *and* the nature of their emission is similar (resultant dispersion impact from either source are the same) then the smaller source can be classified as insignificant provided the resultant POI impact of all the contaminants does not result in non-compliance *or* that the margin of compliance is so slight that if the smaller source or sources were included the aggregate POI impact of all the contaminants would result in non-compliance.

Using this guidance it is possible to conclude that sources of contaminants are negligible by comparing the difference in usage rates between sources at a Facility. If the usage rate of materials in the process are much less than the usage rates in other significant sources at the same facility than the lesser source may be considered negligible.

Appendix B
Acme Anytown Plant, Project 07-5555-411

There are four sources at the Facility which are similar to the main production line sources at the Facility. The sources are similar in that they involve the volatilization of coating. For sources S-3 and S-4 their usage rates at 1 kg/hr and 2.1 kg/hr are much lower than the usage rate of 212 kg/hr for the main production line. For tank sources S-8 and S-9 the low filling rate of 20,000 litres per hour (0.0056 m³/s) and the expected concentration of volatiles in the headspace resulting from the coating material evaporating would result in an emission rate much lower than the evaporation of all the volatiles in the coating used in the main production booth at 212 kg/hr

Source Information		Rationale	Support for Rationale
Source ID	Source Description		
S-3	R&D Area	Semi-Qualitative Correlative Assessment	This line uses the same type of material as the main production line but at a much lower rate of 1kg/hour compared to 212 kg/hour
S-4	Repair Booth	Semi-Qualitative Correlative Assessment	This line uses the same type of material as the main production line but at a much lower rate of 2.1kg/hour compared to 212 kg/hour
S-8, S-9	Coating Storage Tanks Coating Mixing	Semi-Qualitative Correlative Assessment	Peak emission from tanks will occur during filling. At a maximum filling rate of 0.005 m ³ /s even if the substance in the tank was a pure volatile, the density of the vapor in air at room temperature would not be high enough that the resultant emission would be significant compared to the usage rate of 212 kg/hour of the main production line.

Appendix B
Acme Anytown Plant, Project 07-5555-411

Identifying significant contaminants using an emission threshold

Using the Threshold Calculator provided in Chapter 7.1.2 of the ESDM Procedure Document the following Emission Thresholds were calculated:

Isopropyl alcohol (CAS # 67-63-0) from Sources S-1 & S-2

Isopropyl alcohol is emitted from sources S-1 and S-2 only.

Shortest distance from S-1 exhaust stack to the Property-Line (in an area classified as urban) is 20 metres. Shortest distance from S-2 exhaust stack to the Property-Line (in an area classified as urban) is 25 metres.

Effects-based standard in Schedule 3 of the Regulation for Isopropyl alcohol is 7,300 $\mu\text{g}/\text{m}^3$ (maximum 24-hour average).

Maximum 1-hour average Dispersion Factor for 20 metres can be interpolated from, Table B-1 Guidance for Screening-Out with Dispersion Factors of Appendix B of the ESDM Procedure Document. The shortest distance from one of the sources is 20 metres; the Dispersion Factor from Table B-1 for 20 metres is 8,700 $\mu\text{g}/\text{m}^3$ per g/s.

Section 7.1.2 of the Procedure Document, entitled Identifying Significant Contaminants Using an Emission Threshold indicates that in most cases, contaminants that are emitted from a specific facility may be identified as negligible when they are below emission thresholds that are developed using the following formula:

$$\text{Emission Threshold (g/s)} = \frac{0.5 \times \text{MOE Limit } (\mu\text{g}/\text{m}^3)}{\text{Dispersion Factor From Table B-1 } (\mu\text{g}/\text{m}^3 \text{ per g/s emission})}$$

The criteria for Isopropyl alcohol under Schedule 3 of O. Reg. 419/05 is 7,300 $\mu\text{g}/\text{m}^3$ based on a 24 hour average. Section 7.1.2 of the Procedure Document requires that the threshold calculator must use the effects-based air quality standards (in Schedule 3 of the Regulation) or ambient air quality criteria taking into account the averaging time of the criteria. In this case, the averaging time is 24 hour which requires a conversion of the one-hour averaging time for the Dispersion Factor from Table B-1.

The Dispersion Factor from Table B-1 converted to Maximum 24-hour average is

$$8,700 \times (1/24) 0.28 = 3,573 \mu\text{g}/\text{m}^3 \text{ per g/s.}$$

Appendix B
Acme Anytown Plant, Project 07-5555-411

Isopropyl alcohol (CAS # 67-63-0) from Sources S-1 & S-2 - continued

The Site-Specific Emission Threshold for Isopropyl alcohol is:

$$0.5 \times (7,300/3,573) = 1.02 \text{ g/s or } 88.3 \text{ kilograms per 24-hour period.}$$

The calculated aggregate emission rate for Isopropyl alcohol from Sources S-1 and S-2 is:

$$(1\% \times 212 \text{ kg/hour} + 1\% \times 21.2 \text{ kg/hr}) \times 8 \text{ hr/24 hr} = 18.7 \text{ kg per 24 hr}$$

18.7 kg per 24-hour period is less than 88.3 kg per 24-hour period; therefore, emissions of Isopropyl alcohol from Source S-1 and S-2 are considered negligible using the emission threshold calculations provided in the Procedure Document.

The Threshold Calculator was applied to identify other contaminants as negligible; the results are tabulated in the following Table

Contaminant Name	Contaminant CAS Number	Source ID	Source Description	MOE Criteria	Criteria Averaging Time	Distance to Property Line in metres	Table B-1 Dispersion Factor	Table B-1 Dispersion Factor Converted To Criteria Averaging Time	Emission Threshold in g/s	Emission Threshold in kg per Averaging time	Aggregate Contaminant Emission Rate kg per Averaging time	
Ethanol	64-17-5	S-1	Main Production Line	19000	1 hour	20	8700	8700	1.09	3.93 kg/hr	2.33	kg/hr
		S-2	Custom Production Area			25						
Isopropyl alcohol	67-63-0	S-1	Main Production Line	7300	24 hour	20	8700	3,573	1.02	88.3 kg/24hr	18.7	kg/24hr
		S-2	Custom Production Area			25						
Acetone	67-64-1	S-7	Preparation Booth	11,880	24 hour	28	7,740	3,179	1.87	161.4 kg/24hr	16.0	kg/24hr

Appendix B
Acme Anytown Plant, Project 07-5555-411

De-minimus Calculations

Appendix B of the Procedure Document, entitled *Supporting Information for the Assessment of the Significance of Contaminants and Sources* provides some direction on identifying insignificant emissions of a contaminant.

Specifically, Step 2 of Table B-2A entitled *Contaminants Not Listed in the MOE Document "Summary of Point of Impingement Guidelines, and Ambient Air Quality Criteria (AAQCs)" That can be Deemed Insignificant in a Specific Situation* indicates that if a substance is not listed in Table B-2B entitled *List of Contaminants Excluded from de minimus level* it can be considered insignificant if its predicted impact is below 0.3 ug/m^3

Using the de-minimus procedure included in Appendix B of the ESDM Procedure Document the following contaminant was shown to be negligible:

Proprietary Additive (CAS # withheld) from Sources S-1, S-2

A proprietary additive is contained in resins used in the Sources S-1 & S-2. This additive is used at a rate of less than 5 g/hr or 0.0014 g/s. Using the dispersion factor calculated from the virtual source model for the facility of 208 the resultant concentration at POI from the facility is 0.291 ug/m^3 which is less than the de-minimum values of 0.3 ug/m^3 . The proprietary additive is not listed in Table B-2B.

Therefore, emissions of the proprietary additive from Sources S-1 and S-2 can be considered negligible using the de-minimus calculations provided in the Procedure Document. Emissions of this proprietary additive were not included in the dispersion model and the maximum concentration at POI and are not presented in the Emission Summary Table.

Appendix C

Acme Anytown Plant, Project 07-5555-411

Dispersion Modelling Printouts

Acme Inc.

Dispersion Factor

Property line co-ordinates

```
# 1=( 0. 0.) # 2=( 185. 0.) # 3=( 184. 112.) # 4=( 0. 112.)
# 5=( 0. 0.)
```

Virtual Sources

Number	Height m	Emission Rate gm/s	Width m	Length m	Angle deg	x m	y m
1	7.6	1.00	94.7	156.4	.0	85.	58.

vs

MAXIMUM GROUND LEVEL CONCENTRATION VERSION 2.00

Data from file: cstudy1.STK

Virtual Sources

Number	Height m	Emission Rate gm/s	Width m	Length m	Angle deg	X m	Y m
1	7.6	1.00	94.7	156.4	.0	85.	58.

Single Source Maximum Ground Level Concentrations

Source	Stability	Maximum Conc (ug/m3)	Distance (m)	Wind Speed (m/sec)
1	C	117.92	79.	5.000
	D	208.95	79.	5.000

Maximum off-property ground level concentration 200.68 ug/m3
 Stability D
 Wind direction 179.726 deg
 Wind speed 5.000 m/s
 Coordinates -.8 58.4 (m)

Maximum Concentration along the property line 202.08 ug/m3
 Stability D
 Wind direction 179.908 deg
 Wind speed 5.000 m/s
 Coordinates 0. 58. (m)

Appendix C **Acme Anytown Plant, Project 07-5555-411**

NO_x Emissions

Property line co-ordinates

1=(0. 0.) # 2=(185. 0.) # 3=(184. 112.) # 4=(0. 112.)
 # 5=(0. 0.)

Point Sources

Number	Height	Emission Rate	Exit Velocity	Diameter	Temp	x	y
	m	gm/s	m/s	m	C	m	m
2	15.3	.12	8.0	.5	137.0	64.	93.

Virtual Sources

Number	Height	Emission Rate	Width	Length	Angle	x	y
	m	gm/s	m	m	deg	m	m
1	7.6	.16	94.7	156.4	.0	85.	58.

Appendix C

Acme Anytown Plant, Project 07-5555-411

NO_x Emissions

MAXIMUM GROUND LEVEL CONCENTRATION
VERSION 2.00

Data from file: cstudy2.STK

Point Sources

Number	Height	Emission Rate	Exit Velocity	Diameter	Temp	X	Y
	m	gm/s	m/s	m	C	m	m
2	15.3	.12	8.0	.5	137.0	64.	93.

Virtual Sources

Number	Height	Emission Rate	Width	Length	Angle	X	Y
	m	gm/s	m	m	deg	m	m
1	7.6	.16	94.7	156.4	.0	85.	58.

Single Source Maximum Ground Level Concentrations

Source	Stability	Maximum Conc	Distance (ug/m3) (m)	Wind Speed (m/sec)
1	C	18.868	79.	5.000
	D	33.432	79.	5.000
2	C	12.614	190.	2.235
	D	15.326	330.	2.235

All Stacks Tested

Maximum off-property ground level concentration 25.170 ug/m3
 Stability D
 Wind direction 272.779 deg
 Wind speed 2.235 m/s
 Coordinates 77.0 -178.3 (m)

Maximum Concentration along the property line 32.333 ug/m3
 Stability D
 Wind direction 179.908 deg
 Wind speed 5.000 m/s
 Coordinates 0. 58. (m)

Appendix D
Acme Anytown Plant, Project 07-5555-411

Material Safety Data Sheets



MATERIAL SAFETY DATA SHEET

Goocoat One

FILE NO.: 153668

MSDS DATE: 9/02/05

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Goocoat One
SYNONYMS: 
PRODUCT CODES: 

MANUFACTURER: 
DIVISION: 
ADDRESS: 

EMERGENCY PHONE: (149) 555-1234
CHEMTREC PHONE: (149) 555-5678
OTHER CALLS:
FAX PHONE: (149) 555-1235

CHEMICAL NAME: 
CHEMICAL FAMILY: 
CHEMICAL FORMULA: 

PRODUCT USE: 
PREPARED BY: 

SECTION 1 NOTES:



SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	CAS Number	Weight	ACGIH	OSHA
Toluene	108-88-3	8.0%	100 ppm	100 ppm
Xylene	1330-20-7	10.0%	100 ppm	100 ppm
Methyl isobutyl ketone	108-10-1	3.0%		
Methyl alcohol	67-56-1	10.0%		
2-Ethoxyethyl acetate	111-15-9	1.0%		
Trichloroethylene	79-01-6	2.0%		
Glycol Ether EE	110-80-5	1.0%		
Methyl ethyl ketone	78-93-3	20.0%	200 ppm	200 ppm
Isopropyl alcohol	67-63-0	1.0%		
Ethanol	64-17-5	1.0%		
N-butyl alcohol	71-36-3	1.0%		
2 Methylbutyl Alcohol	137-32-6	0.5%		
Amyl Alcohol	71-41-0	1.0%		
n Propoxypropanol	1569-01-3	1.0%		

SECTION 2 NOTES:



MATERIAL SAFETY DATA SHEET

Goocoat Two

FILE NO.: 159758

MSDS DATE: 9/02/05

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

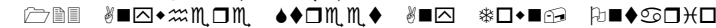
PRODUCT NAME: Goocoat Two

SYNONYMS: 

PRODUCT CODES: 

MANUFACTURER: 

DIVISION: 

ADDRESS: 

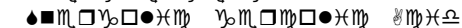
EMERGENCY PHONE: (149) 555-1234

CHEMTREC PHONE: (149) 555-5678

OTHER CALLS:

FAX PHONE: (149) 555-1235

CHEMICAL NAME: 

CHEMICAL FAMILY: 

CHEMICAL FORMULA: 

PRODUCT USE: 

PREPARED BY: 

SECTION 1 NOTES:



SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Ingredients</u>	<u>CAS</u> <u>Number</u>	<u>Weight</u>	<u>ACGIH</u>	<u>OSHA</u>
Toluene	108-88-3	12.0%	100 ppm	100 ppm
Xylene	1330-20-7	15.0%	100 ppm	100 ppm
Methyl isobutyl ketone	108-10-1	5.0%		
Methyl alcohol	67-56-1	20.0%		
2-Ethoxyethyl acetate	111-15-9	1.0%		
Trichloroethylene	79-01-6	3.5%		
Glycol Ether EE	110-80-5	1.0%		
Methyl ethyl ketone	78-93-3	25.0%	200 ppm	200 ppm
Isopropyl alcohol	67-63-0	1.0%		
Ethanol	64-17-5	1.0%		

SECTION 2 NOTES:



