EMISSION SUMMARY AND DISPERSION MODELING REPORTS

PROCEDURE FOR PREPARING AN EMISSION SUMMARY AND DISPERSION MODELING REPORT

GUIDANCE FOR DEMONSTRATING COMPLIANCE WITH:

SECTION 5 OF
REGULATION 346
GENERAL - AIR POLLUTION R.R.O. 1990

MADE UNDER THE ENVIRONMENTAL PROTECTION ACT

June 1998

Ontario

Ministry of the Environment

CERTIFICATE OF APPROVAL APPLICATIONS
FLEXIBLE SITE-WIDE CERTIFICATES OF APPROVAL

EngConsult Limited
21 Queen Street East, Suite 201, Brampton, Ontario, L6W 3P1
Tel: 905 455 7892, Fax: 905 455 2351
www.eng-consult.com

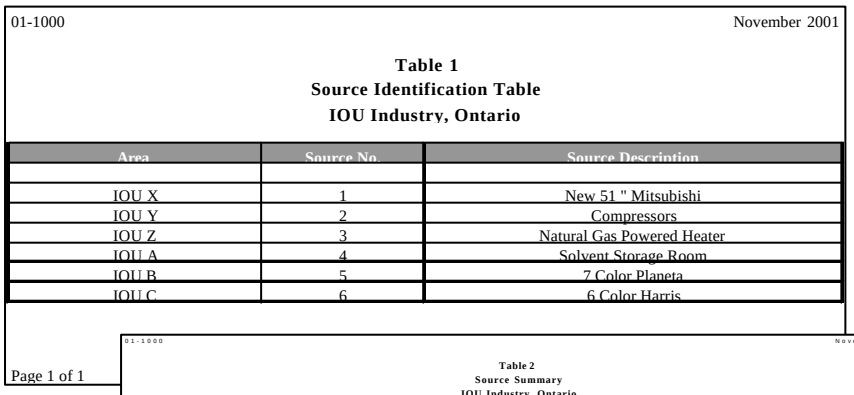
EngConsult provides air quality consulting services to a variety of clients including transportation, industry, federal governments and municipalities. Experts of EngConsult have prepared many Emission Summary and Dispersion Modeling Reports in accordance with MOE Reg. 346 in support of Certificate of Approval Applications and NPRI based on Reg. 127.

THE ENGCONSULT APPROACH:

- **IS METHODOLOGICAL**
  - Identification
  - Quantification
  - Documentation
- **SIMPLIFICATION OF COMPLEX ISSUES**
  - Graphical Interpretation
  - Simple to understand Reports
- **CUSTOMER SATISFACTION**
  - Continued Communication
- **EXPLAIN COMPLIANCE ISSUES**
  - Uncertainty is replaced with knowledge.

EngConsult's Emission Summary and Dispersion Modeling Report is principally based on the *Source Description Sheet*, which contain:

- Stack information, temperature and flow rate.
- Emission information required for each source.
- Emission source specifications, chemical usage and equipment operation data, and pollution control equipment.
- Photograph of each source for easier understanding.
- Sample emission calculation to illustrate estimation techniques.



01-1000 November 2001

Table 1
Source Identification Table
IOU Industry, Ontario

Area	Source No.	Source Description
IOU X	1	New 51 " Mitsubishi
IOU Y	2	Compressors
IOU Z	3	Natural Gas Powered Heater
IOU A	4	Solvent Storage Room
IOU B	5	7 Color Planeta
IOU C	6	6 Color Harris

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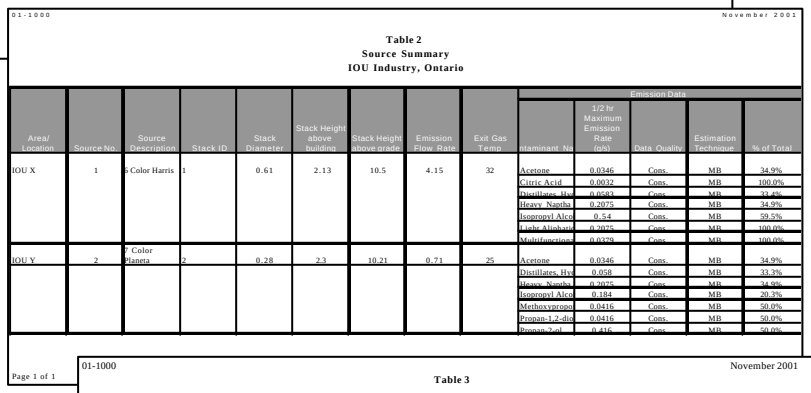

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Table 2
Source Summary
IOU Industry, Ontario

Area/ Location	Source No.	Source Description	Stack ID	Stack Diameter	Stack Height above building	Stack Height above grade	Emission Flow Rate	Exit Gas Temp	Emission Data				
									Contaminant N	1/2 hr Maximum Emission Rate (g/s)	Data Quality	Estimation Technique	% of Total
IOU X	1	6 Color Harris	1	0.61	2.13	10.5	4.15	32	Acetone	0.0346	Cons.	MB	34.9%
									Citric Acid	0.0032	Cons.	MB	100.0%
									Distillates, Hyd	0.0583	Cons.	MB	33.3%
									Heavy Naptha	0.2075	Cons.	MB	34.9%
									Isopropyl Alco	0.54	Cons.	MB	59.5%
									Light Aliphatic	0.2075	Cons.	MB	100.0%
									Multifunctional	0.0279	Cons.	MB	100.0%
IOU Y	2	7 Color Planeta	2	0.28	2.3	10.21	0.71	25	Acetone	0.0346	Cons.	MB	34.9%
									Distillates, Hyd	0.058	Cons.	MB	33.3%
									Heavy Naptha	0.2075	Cons.	MB	34.9%
									Isopropyl Alco	0.184	Cons.	MB	20.3%
									Methoxypropo	0.0416	Cons.	MB	50.0%
									Propan-1,2-diol	0.0416	Cons.	MB	50.0%
									Propan-2-ol	0.416	Cons.	MB	50.0%

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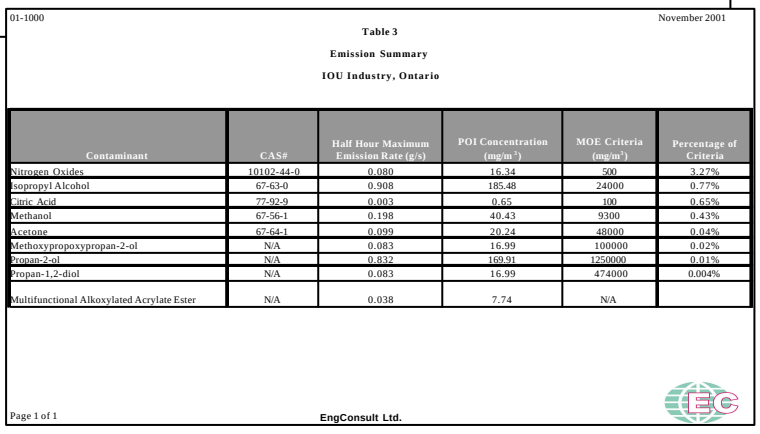

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Table 3
Emission Summary
IOU Industry, Ontario

Contaminant	CAS#	Half Hour Maximum Emission Rate (g/s)	POI Concentration (mg/m^3)	MOE Criteria (mg/m^3)	Percentage of Criteria
Nitrogen Oxides	10102-44-0	0.080	16.34	500	3.27%
Isopropyl Alcohol	67-63-0	0.908	185.48	24000	0.77%
Citric Acid	77-92-9	0.003	0.65	100	0.65%
Methanol	67-56-1	0.198	40.43	9300	0.43%
Acetone	67-64-1	0.099	20.24	48000	0.04%
Methoxypropoxypropan-2-ol	N/A	0.083	16.99	100000	0.02%
Propan-2-ol	N/A	0.832	169.91	1250000	0.01%
Propan-1,2-diol	N/A	0.083	16.99	474000	0.004%
Multifunctional Alkoxylated Acrylate Ester	N/A	0.038	7.74	N/A	

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IDENTIFICATION

- Identify each source, photo document and reference in site plan.
- Source description sheet.
- Simple communication.
- Source survey report.

QUANTIFICATION

The EngConsult Air Team consists of:

- Compliance Specialists.
- Dispersion Modeling Expertise.
- Process Engineer.

DOCUMENTATION

The EngConsult Report:

- Fulfills MOE requirements.
- Easy to grasp.
- Easy to update.
- Compatible with future usage.