

AIR POLLUTION REGULATION 308

APPENDICES A – G

November, 1987

BFG19413



Environment
Ontario

Hon. Jim Bradley
Minister

22204001

APPENDIX A

SUMMARY OF

CLASSIFICATION PARAMETERS

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INTRODUCTION

An approach has been developed that identifies the level of control technology required for air contaminants. A concern level for a chemical in the environment is used to classify the chemical and thereby determine the level of control required.

The following generally accepted parameters have been developed to determine the concern level for a chemical in the environment. These parameters are a subgroup of the parameters in a methodology being developed for the Ministry of the Environment for assessing the relative environmental hazards of chemical contaminants. The magnitude of the score assigned to each parameter reflects the level of concern arising from that property of a chemical.

1. Environmental Behaviour Parameters

Range of scores: 0-10 for all parameters a. to c. except Environmental Transport which is 0-4.

- a) Environmental Transport
- b) Environmental Persistence
- c) Bioaccumulation

2. Toxicity Parameters

Range of scores: 0-10 for all parameters a. to g.

- a) Acute Lethality
- b) Sub-Lethal Effects on Non-Mammalian Animals
- c) Sub-Lethal Effects on Plants
- d) Sub-Lethal Effects on Mammals
- e) Teratogenicity
- f) Genotoxicity/Mutagenicity
- g) Carcinogenicity

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TABLE 1

ILLUSTRATION OF APPROACH FOR THE CLASSIFICATION OF AIR CONTAMINANTS

INDIVIDUAL PARAMETER LEVELS OF CONCERN AND/OR INTERRELATIONSHIPS OF CONCERN FOR CHEMICALS WITH:	APPLICABLE CONTROL TECHNOLOGY LEVEL (3 LEVELS)	APPLICABLE CONTROL TECHNOLOGY LEVEL (2 LEVELS)
- o A VERY HIGH SCORE OR SCORES (10) in any specific TOXICITY PARAMETER Examples: acrylonitrile benzo(a)pyrene hexachlorobenzene - o VERY HIGH COMBINATION SCORES (≥20) including - o a high TOXICITY score (8) - o a high PERSISTENCE (10) - o BIOACCUMULATION (10) score, and - o a TRANSPORT score (0,2,3,4) Examples: lead cadmium	LAER	LAER
- o A HIGH SCORE OR SCORES in any individual TOXICITY PARAMETER (8) Examples: tetrachlorobenzene - o HIGH COMBINATION SCORES (≥14 <20) including, - o a medium high TOXICITY score (4-6) - o a high PERSISTENCE (7 or 10) - o BIOACCUMULATION (7 or 10) score, and - o a TRANSPORT score (0,2,3,4) Examples: pentachlorophenol, hexachlorocyclohexane	BACT-EA	BACT-EA
o SCORES not falling into any of the above Examples: hexane, toluene	NSPS	

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