




**Session III-2**



**KOREAN SOCIETY OF  
ENVIRONMENTAL HEALTH  
CONFERENCE**



**2005**

New Zealand Chemical Industry Council



**GREETINGS FROM YOUR NEW  
ZEALAND ("KIWI") COLLEAGUES**

반갑습니다.

New Zealand Chemical Industry Council

2

**BARRY S DYER**

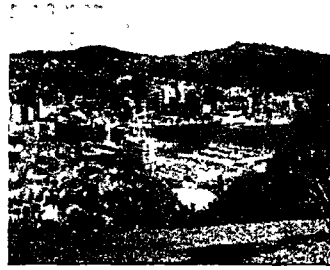
Chief Executive, New Zealand Chemical Industry Council, E-mail [BarryDyer@nzci.org.nz](mailto:BarryDyer@nzci.org.nz)



## New Zealand

### Country Profile:

- Population 4m
- Multi-cultural
- Land Area 270,000 sq kms
- GDP US\$100 billion



New Zealand Chemical Industry Council

3



## New Zealand

- Trading nation which provides high quality food products to the world
- Renowned eco-tourism destination



New Zealand Chemical Industry Council

4



## New Zealand

- Performance based, risk-averse SH&E protection legislation
- Expectation of voluntary Industry compliance



New Zealand Chemical Industry Council

5

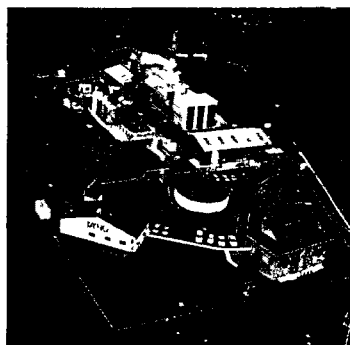


## New Zealand

Chemical industry

Imports: US\$2.6bn

Exports: US\$900m



New Zealand Chemical Industry Council

6



## New Zealand



- Chemical Control Legislation reflects international Performance Standards and Best Practice
- Seeks global standardisation and harmonisation, particularly with Asia Pacific nations

New Zealand Chemical Industry Council

7



## New Zealand



### New Zealand Chemical Industry Council

Established:	1986
Adopted Responsible Care®:	1991
Membership:	130 Companies
	10 Partnerships

New Zealand Chemical Industry Council

8



## New Zealand



### Extensive Regulatory Reform

- Environmental Protection
- Workplace Health and Safety
- Building Construction
- Management of Chemicals (Hazardous Substances)



New Zealand Chemical Industry Council

9



## New Zealand



### New Zealand Chemical Industry Council

Improve National Safety, Health and Environmental (SH&E) performance, particularly the management of Hazardous Substances through the global Responsible Care® initiative.

New Zealand Chemical Industry Council

10



## NZCIC Strategy

- Co-operate with Government and Enforcement agencies to implement cost-effective SH&E protection policies, regulations, performance standards, compliance and enforcement measures.
- Establish NZCIC as "Centre of Excellence" for SH&E performance and compliance.

New Zealand Chemical Industry Council

11



## GHS

**Globally Harmonised System for the  
Classification and Labelling of  
Chemicals**

New Zealand Chemical Industry Council

12



## GHS: Issues

- Provide more data
- Set Standards
- Achieve consistency
- Hazard **NOT** Risk



New Zealand Chemical Industry Council

13



## GHS: Origin

# UNRTDG

The UN Recommendations on the  
Transport of Dangerous Goods, Model  
Regulations



New Zealand Chemical Industry Council

14

### Hazard Classifications for Class 1 Substances (Incorporating UN Dangerous Goods)

Property	Explosiveness					
Class	Class 1					
Subclass	1.1 Mass Explosion	1.2 Projection	1.3 Fire and Minor Blast	1.4 No Significant Hazard	1.5 Very Insensitive	1.6 Extremely Insensitive
Hazard Classification	1.1A					
	1.1B	1.2B		1.4B		
	1.1C	1.2C	1.3C	1.4C	1.5D	
	1.1D	1.2D		1.4D		
	1.1E	1.2E		1.4E		
	1.1F	1.2F	1.3F	1.4F		
	1.1G	1.2G	1.3G	1.4G		
		1.2H	1.3H			
	1.1J	1.2J	1.3J			
		1.2K	1.3K			
	1.1L	1.2L	1.3L			
				1.4H		1.6H

**Key**

	Hazardous Substances and Dangerous Goods
	Hazardous Substances Only
	UN Dangerous Goods Only

- Dangerous Goods Only
- 2 2 Non-flammable Non-toxic Gases
- 2 3 Toxic Gas
- 6 2 Infectious Substances
- 7 Radioactive Material
- 9 Miscellaneous Dangerous Substances and Articles

- + Foods
- + Manufactured Articles
- + Medicines



### Hazard Classifications for Class 2, 3, 4 and 5 Substances (Incorporating UN Dangerous Goods)

Property	Flammability										Capacity to Oxidize		
Class	Class 2		Class 3		Class 4						Class 5		
Subclass	2.1.1 Gases	2.1.2 Aerosols	3.1 Liquids	3.2 Liquid Dissolved Explosives	4.1.1 Rapidly Combustible	4.1.2 Self Reactive	4.1.3 Solid Dissolved Explosives	4.2 Spontaneously Combustible	4.3 Dangerous When Wet	5.1.1 Liquids (Inhalable)	5.1.2 Gases	5.2 Organic Peroxides	
Hazard Classification	2.1.1A	2.1.1A	3.1A	3.2A	4.1.1A	4.1.1A	4.1.3A	4.2A	4.3A	5.1.1A	5.1.2A	5.2A	
	2.1.1B		3.1B	3.2B	4.1.1B	4.1.2B	4.1.3B	4.2B	4.3B	5.1.1B		5.2B	
			3.1C	3.2C	4.1.1C	4.1.2C	4.1.3C	4.2C	4.3C	5.1.1C		5.2C	
			3.1D		4.1.1D	4.1.2D						5.2D	
					4.1.1E	4.1.2E						5.2E	
					4.1.1F	4.1.2F						5.2F	
					4.1.1G	4.1.2G						5.2G	
					4.1.1H	4.1.2H						5.2H	
					4.1.1I	4.1.2I						5.2I	
					4.1.1J	4.1.2J						5.2J	
					4.1.1K	4.1.2K						5.2K	
					4.1.1L	4.1.2L						5.2L	

**Key**

	Hazardous Substances and Dangerous Goods
	Hazardous Substances Only
	UN Dangerous Goods Only

- Dangerous Goods Only
- 2 2 Non flammable Non-toxic Gases
- 2 3 Toxic Gas
- 6 2 Infectious Substances
- 7 Radioactive Material
- 9 Miscellaneous Dangerous Substances and Articles

- + Foods
- + Manufactured Articles
- + Medicines





## Hazard Classifications for Class 6 and 7 Substances (Incorporating UN Dangerous Goods)

Property	Toxicity								Radioactive Material Class 7 UN 7
Class	Class 6								
Subclass	6.1 Acutely Toxic	6.2 Skin Irritant	6.3 Eye Irritant	6.5 Sensitisation	6.6 Mutagen	6.7 Carcinogen	6.8 Reproductive Developmental	6.9 Target Organ/ System	
Hazard Classification	6.1A	6.3A	6.4A	6.5A	6.6A	6.7A	6.8A	6.9A	
	6.1B	6.3B		6.5B	6.6B	6.7B	6.8B	6.9B	
	6.1C						6.8C		
	6.1D								
	6.1E								

Key		
	Hazardous Substances and Dangerous Goods	Dangerous Goods Only
	Hazardous Substances Only	2.2 Non-flammable Non-toxic Gas
	Dangerous Goods Only	2.3 Toxic Gas
		6.2 Infectious Substances
		7 Radioactive Material
		+ Food
		+ Manufactured Articles
		+ Medicines





## Hazard Classifications for Class 8 and 9 Substances (Incorporating UN Dangerous Goods)

Property	Corrosiveness			Ecotoxicity				Miscellaneous Dangerous Substances and Articles Class 9 UN 9
Class	Class 8			Class 9				
Subclass	8.1 Metallic Corrosive	8.2 Skin Corrosive	8.3 Eye Corrosive	9.1 Aquatic	9.2 Soil	9.3 Terrestrial Vertebrate	9.4 Terrestrial Invertebrate	9.9 Environmentally Hazardous Substances
Hazard Classification	8.1A	8.2A	8.3A	9.1A	9.2A	9.3A	9.4A	9
	8.1B	8.2B		9.1B	9.2B	9.3B	9.4B	
	8.1C	8.2C		9.1C	9.2C	9.3C	9.4C	
	8.1D			9.1D	9.2D			
	8.1E							

Key		
	Hazardous Substances and Dangerous Goods	Dangerous Goods Only
	Hazardous Substances Only	2.2 Non-Flammable Non-toxic Gases
	Dangerous Goods Only	2.3 Toxic Gas
		6.2 Infectious Substances
		7 Radioactive Material
		9 Miscellaneous Dangerous Substances and Articles
		+ Food
		+ Manufactured Articles
		+ Medicines




**GHS: Issues**



**Target:**

**2010**



New Zealand Chemical Industry Council

19

**GHS: Implementation**

**New Legislation**

**Hazardous Substances and New Organisms Act 1996**

- Responsibilities
- Process
- Classification Procedure
- Performance Standards

New Zealand Chemical Industry Council

20



## **GHS: Implementation**

### **New Regulations**

#### **Hazardous Substances and Regulations 2001**

- Management System
- Compliance Requirements
- Implementation Milestones
- Enforcement

New Zealand Chemical Industry Council

21



## **GHS: Industry Implementation Strategy**

- Co-operation
- Co-ordination
- Consistency

New Zealand Chemical Industry Council

22






## GHS: Co-operation




Engage all Stakeholders  
New Zealand Chemical Industry Council

23

## GHS: Co-operation

- 10 Government Departments
- Industry and Community Groups



New Zealand Chemical Industry Council

24



## GHS: Co-operation

- Help develop Draft legislation and Performance Standards
- Provide Compliance Tools



New Zealand Chemical Industry Council

25



## GHS: Co-ordination

- Requires clear Leadership
- Best use of resources
- Minimise Compliance costs

New Zealand Chemical Industry Council

26



## GHS: Consistency

- Support Government objectives
- Help achieve Performance Standards
- Monitor Compliance and report progress

New Zealand Chemical Industry Council

27



## GHS: Consistency

Essential to successful implementation  
of complex and dynamic regulations.

New Zealand Chemical Industry Council

28



## GHS: Consistency

- Avoid "New Zealand only" solutions
- Reflect International obligations
- National Performance Standards

New Zealand Chemical Industry Council

29



## GHS: Consistency

- Provide Compliance solutions
- Standardise Implementation, Performance, Assessment, and Enforcement

New Zealand Chemical Industry Council

30



## **GHS: Implementation Obstacles**

- Low level of Compliance
- "Patch protection"
- Two systems

New Zealand Chemical Industry Council

31



## **GHS: Implementation Obstacles**

- Overlapping responsibilities
- No Lead Agency
- Inadequate Resourcing
- No Supporting Infrastructure

New Zealand Chemical Industry Council

32





## **GHS: Implementation**

### **Obstacles**

- Industry ignored
- Different priorities
- Industry expected to accept responsibility and cost of Implementation

New Zealand Chemical Industry Council

33



### **LESSON No.1**

**Only Industry can ensure  
compliance!**

New Zealand Chemical Industry Council

34



## GHS: Implementation

### Industry Initiatives

- Develop National Performance Standards (Codes of Practice)
- Help train Industry and Enforcement Officers
- Encourage Compliance

New Zealand Chemical Industry Council

35



## GHS: Implementation

### Industry Compliance Initiatives

- Provision of Technical Advice
- Provide "Compliance Tools"
  - **ChemCall** • 24/7 Emergency Response Service
  - **PRINCE** • Site "Readiness" Inspections

New Zealand Chemical Industry Council

36



## **GHS: Implementation Industry Compliance Initiatives**

- **PRINCE** Site "Readiness" Inspections
- National Codes of Practice
- **ChemSafe** Compliance Software

New Zealand Chemical Industry Council

37



## **GHS: Implementation Industry Initiatives**

- Require "Voluntary Compliance"
- Product Stewardship Initiatives

New Zealand Chemical Industry Council

38



## LESSON No.2

•Involve Industry!

•Involve Industry!

•Involve Industry!

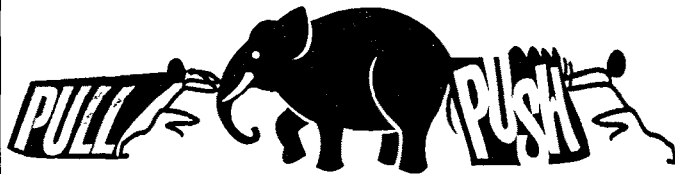
New Zealand Chemical Industry Council

39



## Successful Implementation

## Industry Leads by Example



New Zealand Chemical Industry Council

40

