

PIESA Environmental & Safety Working Group

2011 Environmental Capacity Building Programme

Course Structure

DAY 1:

08h00 – 08h15: Welcome and Introductions

08h15 – 10h00: Module 1: Environmental Challenges for Business/Engineers

10h00 – 10h15: Tea

10h15 – 11h15: Video: “*Quest for Survival – South African Environments in the 21st Century*”

11h15 – 12h00: Module 2: Sustainable Development

12h00 - 12h30: Video: “*Road to Sustainable Development*”

12h30 – 13h00: Lunch

13h00 – 16h00: Module 3: Environmental Legislation

DAY 2:

08h00 – 10h00: Module 4: Environmental Impact Assessments (EIAs)

10h00 – 10h15: Tea

10h15 – 10h45: Module 5: Climate Change

10h45 – 12h30: Module 6: Environmental impacts of an electricity utility

12h30 – 13h00: Lunch

13h00 – 13h30: Video: “*A Quite Revolution*”

13h30 – 14h45: Q & A

14h45 – 15h00: Video: “*UNEP Environment Challenges*”

Course Content

Module 1: *Environmental Challenges for Business/Engineers*

(a) Global and national environmental trends (the need for industrial environmental management)

Module 2: *Sustainable Development*

(a) Definitions

(b) Balancing economic, social and environmental issues

(c) Benefits of sustainable development

Module 3: *Environmental Legislation*

(a) Introduction to environmental legislation in South Africa

(b) Methods of environmental enforcement

(c) Legislation to be covered:

- Constitution of the Republic of South Africa (Act 108 of 1996)
- National Environmental Policy for South Africa
- National Environmental Management Act (Act 107 Of 1998)
- Environment Conservation Act (Act 73 Of 1989)
- National Forest Act (Act 84 Of 1998)
- National Heritage Resources Act (Act 25 Of 1999)
- National Water Act (Act 36 Of 1998)
- Fencing Act (Act 31 Of 1963)
- Agricultural Resources Act (Act 43 Of 1983)
- Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act (Act 36 of 1947)
- Game Theft Act (Act 105 Of 1991)
- National Veld and Forest Fire Act (Act 101 Of 1998)
- Water Services Act (Act 108 Of 1997)
- National Parks Act (Act 57 Of 1976)
- National Roads Act (Act 54 Of 1971)
- Advertising on Roads and Ribbon Development Act (Act 21 Of 1940)
- Atmospheric Pollution Prevention Act (Act 45 Of 1965)
- Occupational Health and Safety Act (Act 85 Of 1993)

(d) Municipal Bylaws

Module 4: *Environmental Impact Assessments (EIAs) in SA*

- (a) EIA's and the law
- (b) The need for, and value of, EIA's
- (c) EIA case studies
- (d) Record of Decision (ROD)/Environmental Authorisation

Module 5: *Climate Change*

- (a) Basic facts
- (b) Causes of Climate Change
- (c) The consequences for the future
- (d) Climate Change and Africa
- (e) Mitigation of climate change
- (f) International agreements, viz. Kyoto Protocol and 2011 COP17 in SA
- (g) Business response to climate change
- (h) Opportunities for business

Module 6: *Environmental impacts of an electricity utility*

(a) Air Pollution

- Standard on emissions
- How does Eskom contribute to air pollution
- How is Eskom tackling the air pollution problem

(b) Bird Interactions with Powerlines

- Rare/endangered birds most prone to electrocution by Eskom overhead powerlines
- Birds most prone to collisions with Eskom overhead powerlines
- The USA's stance on bird interaction
- Research on bird interaction
- Excretion problems
- Eskom's experiences
- What is Eskom doing to minimise bird problems

(c) Other Aspects Of Eskom's Environmental Management Strategy

- Environmental Management Systems (ISO14001)
- Electrification Projects
- Environmental Capacity Building
- Environmental Training
- Environmental awareness
- Alternative Energy Sources
- Other Ways of Making Positive Impacts on the Environment
- Load shedding challenges

Competency Evaluation:

- (a) Compulsory Assignment (50 multi-choice questions).
- (b) Certificate of attendance will be issued upon completion