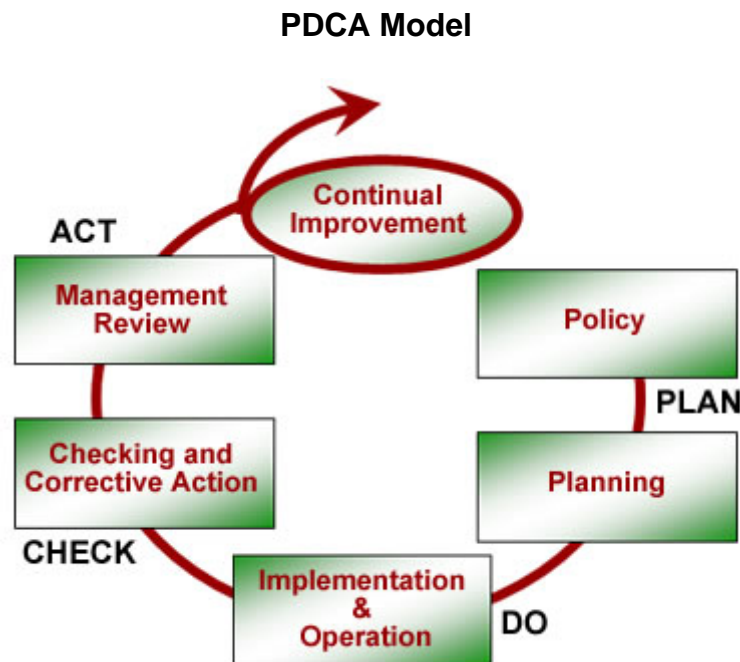


## HSE Management Systems in the Exploration & Production Division

- PDCA Model
- ISO 14001 Environmental Management System
- **Departments certified under ISO 14001:**
  - Southern District
  - Central District
  - East Coast Operations
- Occupational Health and Safety Management System

Petrotrin's HSE drive for the past five years has been the implementation of HSE Management Systems, based on the concept of Continuous Improvement as developed by Walter Shewart and Dr. W. Edwards Deming in the now famous Deming Cycle - Plan-Do-Check-Act (PDCA):



These Management Systems - Environmental Management System in accordance with the ISO 14001:2004 Standard; Occupational Health & Safety Management System in accordance with the OHSAS 18001:1999 Specification - are designed to let the Company take charge of HSE by fully analysing the HSE risks associated with the Company's operations, and developing programmes to control these risks, with continual review and improvement of the systems.

### **ISO 14001 Environmental Management System**

The Development and Implementation of an Environmental Management System (EMS) in accordance with the ISO 14001:1996 Standard was initiated in the Southern District of LNE in October 1999. This project has been under the leadership of Petrotrin's HSE Manager and the

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HSE ISO 14001 implementation team. Since attaining international Certification in September 2002, as recommended by Lloyd's Register Quality Assurance (LRQA) of Houston, the scope of the project was expanded to include the Central District in March 2004 and East Coast Operations in March 2005. After five (5) surveillance audits conducted by LRQA, Petrotrin continues to perform effectively with regards to the management of the environment in which it operates, and has been recommended to be re-certified under ISO 14001:2004 Certification for over forty six departments and functions in the EMS.

**The departments certified under the system include:**

<b>Southern District</b>	
1. Production	11. Fire
2. Maintenance and Services (Utilities)	12. Machine Shop
3. Custody Transfer	13. Tools and Services
4. Field Equipment Maintenance	14. Well Servicing
5. Transport	15. Information Technology & Telecommunications
6. Electrical and Instruments	16. Drilling
7. Environmental Laboratory	17. Materials and Services
8. Gas Transfer	18. Administration
9. Medical	19. Trunk Pipelines
10. Civil Engineering	20. Lease / Joint Ventures Operations

<b>Central District</b>	
1. Production	7. Civil Engineering
2. Production (Field Maintenance)	8. Electrical Maintenance
3. Medical	9. Fire
4. Petrotrin Penal / Barrackpore Club	10. Gas Transfer (Compressors)
5. Custody Transfer	11. Materials and Services
6. Pipefitting	12. Administration

<b>East Coast Operations</b>	
1. Production Land	5. Fire
2. Production Marine	6. Medical
3. Workshops	7. Oil Transfer
4. Pointe-a-Pierre Barge Services	8. Administration

The Environmental Management System in LNE is currently guided under eight (8) environmental objectives to key address areas of environmental concern.

1. Management of Produced Water
2. Management of Oil Waste
3. Management of Ozone Depleting Substances
4. Waste Management of PCB Oils
5. Contractor HSE Management
6. Provision of Secondary Containment
7. Hydrogen Sulphide Emissions Management
8. Waste Management

After three (3) years LNE continues to maintain its Environmental Management System as performance of departments continue to improve as evidenced by the renewed aesthetics of the field facilities. The HSE Department remains committed to the continual auditing of each area under the management system, where over eighty audits are conducted annually. The findings are presented to management, where the corrective actions seek to prevent re-occurrences. The culture is changing as evidenced by the shift in employee awareness of the importance of managing our environment as a means of sustainable development.

### **OHSAS 18001 Occupational Health and Safety Management System**

With the successes achieved in implementation of the ISO 14001 EMS, the HSE Department is now ready to take Safety to new levels in Petrotrin with the implementation of an Occupational Health and Safety (OH&S) Management System in accordance with the Occupational Health and Safety Assessment Series (OHSAS) 18001:1999, for E&P Operations. This Safety Management System is intended to provide the framework for improved safety performance, while it seamlessly integrates with the existing Environmental Management System in E&P. The North-Western District of E&P is the pilot District for OHSAS 18001:1999 Certification, where this is scheduled for September 2006.

#### **The departments within the North Western District include:**

<b>North Western District</b>	
1. Production	7. Medical
2. Technical Services	8. Salvage
3. Utilities	9. Mud Plant
4. Electrical	10. Well Servicing
5. Gas Transfer (Compressors)	11. Administration
6. Oil Transfer	