EDF Skills Management for Operations
By Christophe Poizat

IAEA Conference (CN-215)
HR Development for Nuclear Power Programmes: Building & Sustaining Capacity
12-16 May 2014
Global Coordination of E&T Players in France

**Academic Education**

**Academic institutions**
Engineering and master degree level

Operator in nuclear education & training

Technician level
- Ministry of Education (Prof. High schools)
- IRI/ AFPI, etc...

**Hands-on Training**

**Industrials**
Leading companies in the nuclear industry
AREVA
EDF
GDF Suez
GIIN

**French State departments**
Higher education and research, Industry, Environment and Energy, Defense, and Foreign Affairs

**Research, Safety, etc…**
Safety Authorities

Technological Research

Waste management
How is EDF Nuclear Generation Aligning Training with Plant Performance?
Context

EDF Nuclear Generation SAT model
CONTEXT
Middle Life for EDF Nuclear Fleet

Significant Renewal of Staff (~50% in 10 y)

Needs for Performance Improvement (Equipment, Organisation, Competencies)
5 Programmes for 2020 Project

- Methods for Maintenance & Operation
- Major Technical Modifications
- Operational Management & Leadership
- Jobs Meeting Excellence
- Competencies Programme (SAT Model)
Managers are engaged in the management of Competencies

Training Meets Plant Performance Expectations

4 Key Elements for Managing Competencies

On-site Training Courses are implemented at each NPP

EDF Nuclear Generation SAT Model is Meeting International Standards

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• Applying Training Process Standards

• Establishing EDF Nuclear Generation SAT Model

• Continuing the Journey Towards Plant Performance Improvement

Since 1980

2011-2017

2017+
EDF NUCLEAR GENERATION
SAT MODEL
Training Standards

EDF Nuclear Generation Training
Strategy & Fundamentals for
Managing Competencies

1 - Management of Competencies

2 – Training Management for Performance Improvement
3 – Management of Training Processes & Resources
4 – Initial Training
5 – Continuing Training
6 – Training Implementation & Trainee Evaluation
7 – Training Effectiveness Evaluation

8 – Engagement of NPP’s Personnel in Competencies

Adaptation of INPO ACAD02-001
## Organization & Methods

<table>
<thead>
<tr>
<th>Site &amp; Corporate Training Committees</th>
<th>Joint Training Department</th>
<th>Standardized Initial &amp; Continuing Training Programmes for the entire Fleet</th>
<th>Transfer of Knowledge (~35/y)</th>
</tr>
</thead>
</table>
NPP’s Training Committees

Level 3 Station

Level 2 Dept.

Level 1 Working Team

Corporate Training Committees

Level 4 Head-Management

Corporate Level 2 Job Coordination

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Training Facilities & Tools

Technical Training Workshop

Simulators & Mock-ups

Innovation
Technical Training Workshop at Golfech NPP
3 Nuclear Fuel Handling Simulators for PWR1,300

Posts Inside Reactor Building

Posts Inside Nuclear Fuel Building
Ultrasonic Sensor Training Mock-up
Industrial Safety Equipment
(General Employee Training Programme)

« Making it simple and practical! »
Serious Game
Operating the Entrance Door of PWR Reactor Building

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Human Resources

NPPs

Corporate Level
NPP

HR Director + Project manager (temporary position)

Subject-Matter Experts as Trainers

Part-Time Instructors

Training Specialist

Trng Centre

Technical Instructors

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Job Leaders as TTM* experts

Director for the SAT Model

Skills Management Advisors

Corporate Training Specialist

Nuclear Generation Corporate Level

Trng Unit

* TTM : JTA based Task To Training Matrix
** UFPI : EDF Generation & Engineering Training Unit (UFPI)
EDF Nuclear Generation is Aligning Training with Plant Performance.
Special French Side-Event

NUCLEAR EDUCATION & TRAINING IN FRANCE
& SUPPORT TO NEWCOMER AND EXPANDING COUNTRIES

Wednesday, 14 May 2014 from 17:30 to 19:00
IAEA VIC, C Building, Board Room C, 4th floor

Programme:

Chair: Ms. Karen Daifuku

Introduction: H.E. Ms. Marion Paradas, Permanent Representative of France at IAEA

Featuring: Mr. Yves Fanjas, International Institute of Nuclear Energy

With the participation of French HR Experts:

Academia & Research: Mr. François Foulon (CEA/INSTN)
Safety: Mr. Didier Louvat (ENSTTI)
Owner/operator: Mr. Jean-Luc His (EDF)
Nuclear reactors, fuel, & services: Mr. Xavier Perrette (AREVA)
Waste agency: Mr. Patrice Voizard (Andra)

Reception in the foyer, outside Board Room C, 4th floor