

Regional Training Course on Management Systems and Development of the Safety Culture

22 August – 2 September 2011



White Deer at Argonne





IAEA/Argonne
Regional Training Course on
Management Systems and Development of the Safety Culture

Executive Staff



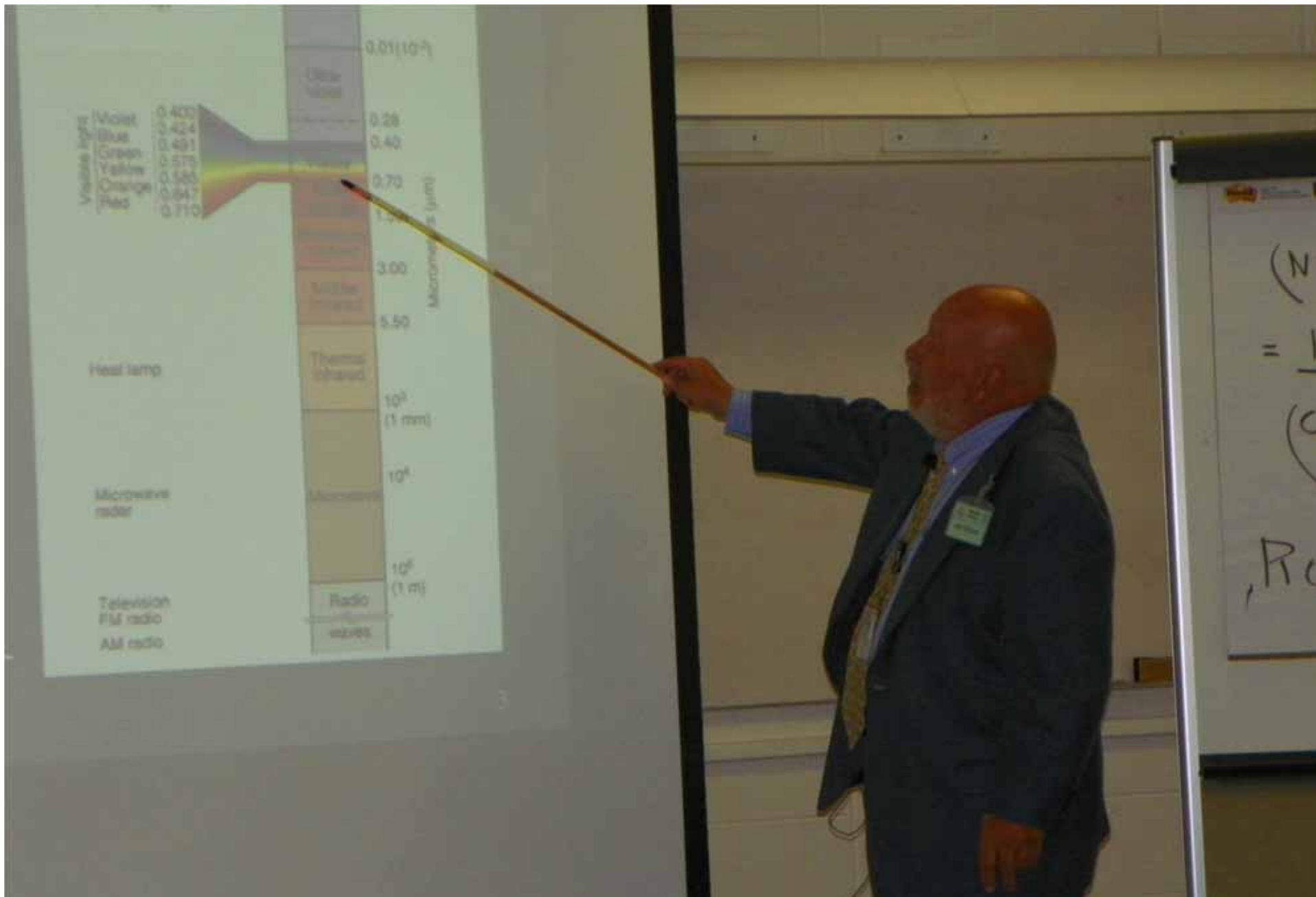
Hussein Khalil



Nuclear Engineering Division Director

Sunaree Hamilton....Jongile Majola....Walt Deitrich





Joe Braun

Joaquim Gallés Muntada



Poong Eil Juhn





Jongile Majola

Participants and Staff Hard At Work

BOOM

THEORY
PRACTICE

KNOWLEDGE

SCIENCE







Management Systems

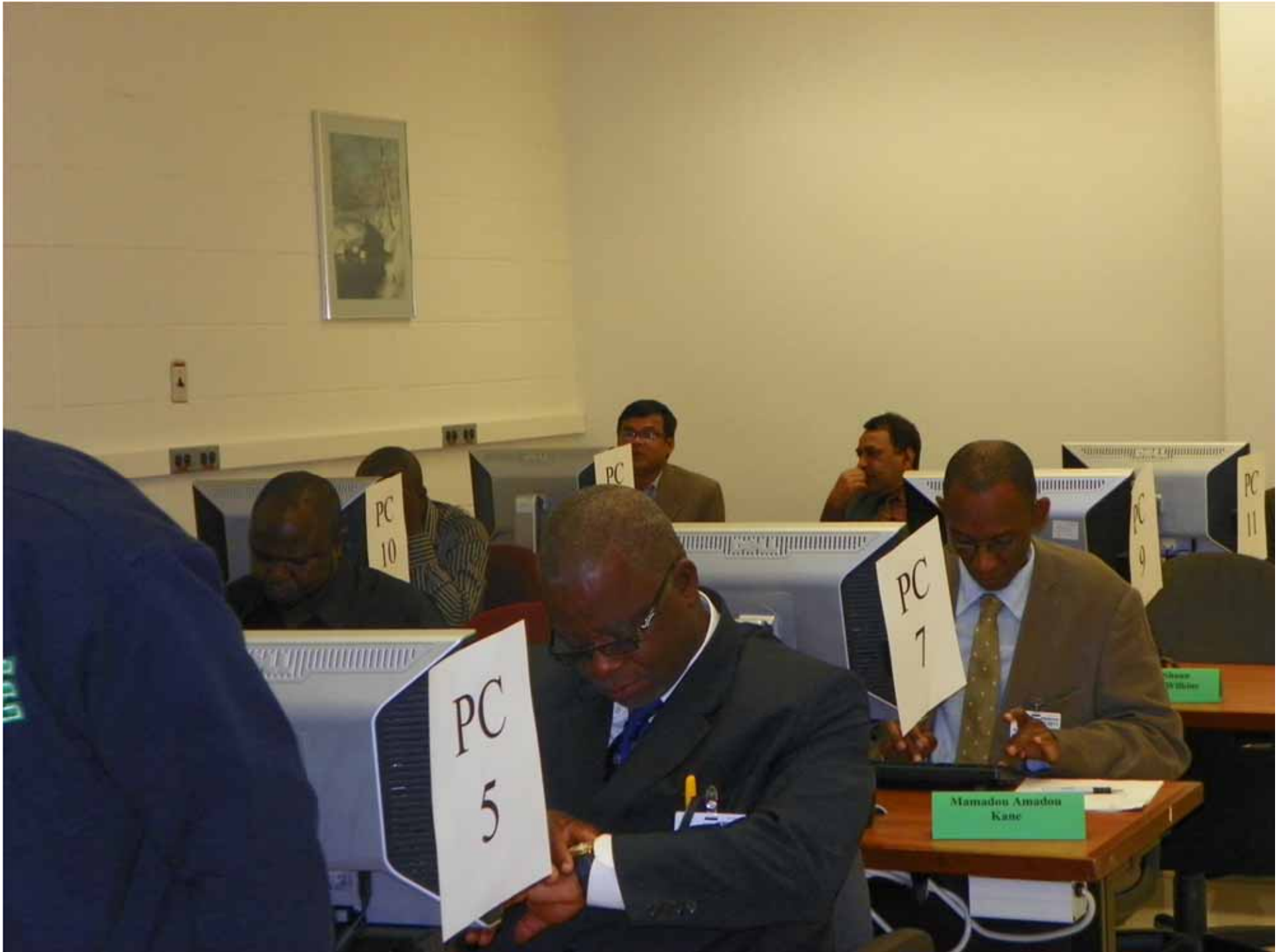
Mailbox

Name

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2.0	Mr. Shale Nester
3.0	Mr. Williams Nester
4.0	Mr. Pender
5.0	Mr. James Mawusi
6.0	Mr. Nwabueze
7.0	Mr. Nwankwo Nwabueze
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Time For A Break















The background of the slide features three vertical panels of ancient Egyptian hieroglyphs. The left and right panels are dark brown and show detailed carvings of various symbols, including lotus flowers, birds, and human figures. The central panel is a lighter, greyish-brown color and shows a large, stylized hieroglyphic symbol, possibly a lotus flower, which is partially obscured by the text. The text is centered and reads "Back To The Lecture Hall" in a bold, olive-green font with a black outline.

**Back
To
The
Lecture
Hall**

Diane Sieracki



Germaine Watts





James E. Boyles

James Vincent Gilbert



Roy Linthicum

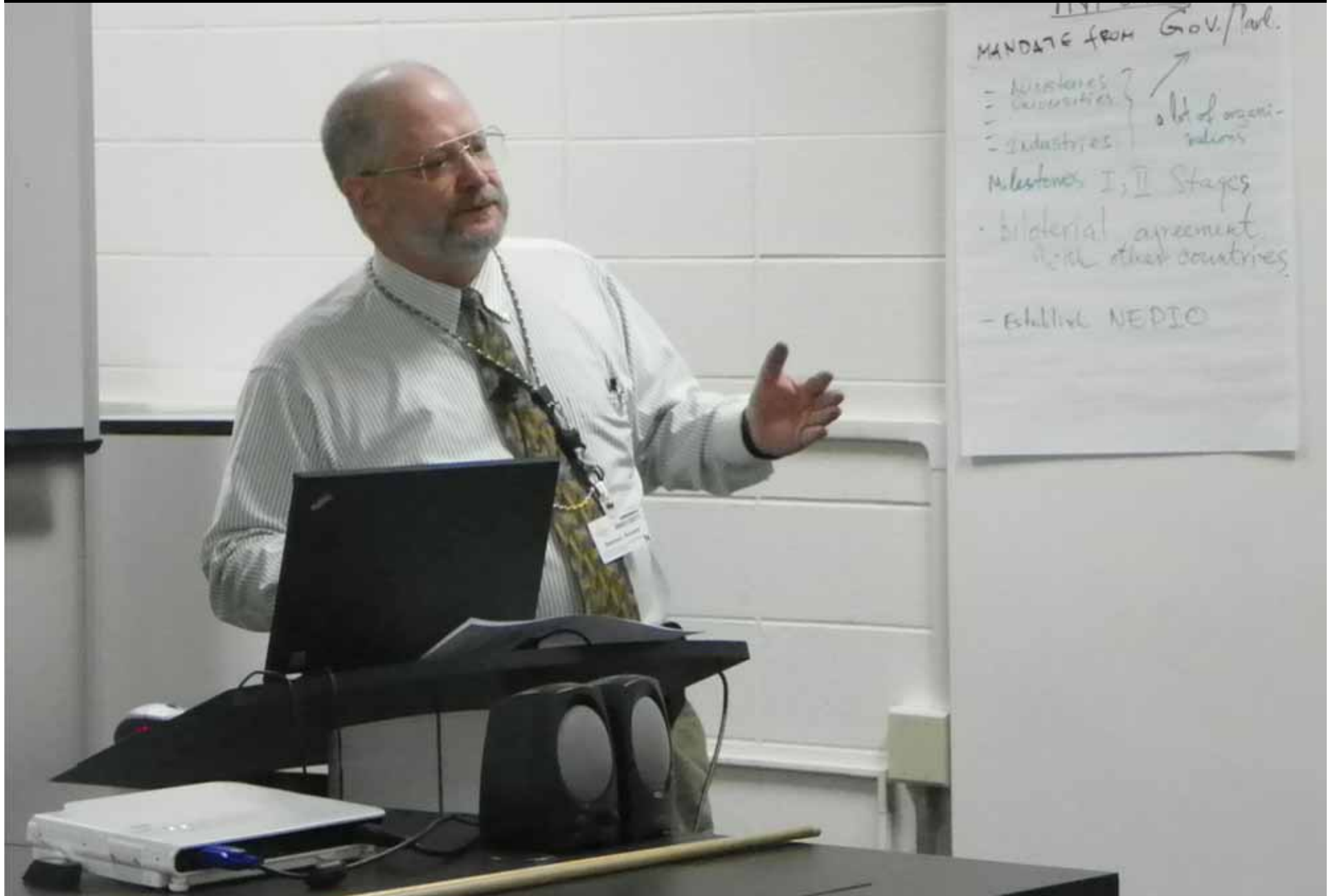


INP
MANDATE fro
- Agencies
- Universities
- Industries
Milestones
- Bioterror
- Establish

Laura Scheele



Richard Swanson



MANDATE FROM Gov./Parl.

- Universities
- Universities?
- Industries

a lot of organizations

Milestones I, II Stages

- bilateral agreement with other countries

- Establish NEDIC

Richard Barrett



Quinton Shane Lies

INPUTS

- MANDATE from Gov./Pol.
- Business Incentives
- Subsidies
- Milestones I, II Stages
- Bilateral agreement with other countries
- EXISTING NEDIC

PROCESSES OR ACTIVITIES

- International conventions & treaties
- Site Selection
- Feasibility Study
- Policy formulation - nuclear laws
- Nuclear Infrastructure (19)
- Financing HR development
- Nuclear Industry capacity building (steel industry, radiation, etc.)
- Construction of NPP
- Start-up
- Project

OUTPUTS

- Strategic Plan, Road Map, Master Plan
- Reg. Directives
- Legislative framework
- qualified human resource
- Milestones III, IV Stages
- only implementing organization
- FINANCING MODEL for NPP

COLOR OF PIs

- SCRAMS (YELLOW)
- EDG (WHITE)

CORNERSTONES

- SCRAMS (IF)
- EDG

SUPERMECHANISM

- Domestic Inst. (Ministries)
- International Inst. (IAEA)
- Academic Research (Universities, Institute)
- Financing/Fund
- Public Support

INFORMATION?

PERFORMANCE?

GROUPS

STAFF

EDG

Brad Williamson





Walter Allan Bonner



CONTROLS

- Presidency/Prime Minister ^{European}
- Nuclear Law / IAEA ^{regulation}
- Regulatory Body ^{Organism}
- Civil Society ^{NGOs}

INPUTS

- MANDATE FROM Gov./Parl.
- Mandates
 - Subsidies
 - Industrial I, II Stages
 - Bilateral agreement

PROCESSES OR ACTIVITIES

- 1 International countries & treaties
- 2 Site Selection
- 3 Feasibility Study
- 4 Policy formulation - nuclear laws
- 5 Nuclear Infrastructure ¹⁹
- 6 Financing HR development
- 7 Nuclear industry capacity building - domestic (steel industry, civil engineering, radiation protection)
- 8 Design selection of NPP
- 9 ^{pre-project} ^{implementation} ^{Plan}

OUTPUTS

- Strategic Plan
- Road Map
- Master Plan
- Regulatory framework
- Human resource
- I, II Stages

SUPPORTING MECHANISMS

1. Domestic Inst (Ministries of...)
2. Internat. Inst (IAEA)
3. Academic Bodies (Universities)
4. Financial
5. Public



INPUTS

MANDATE from Gov/Pol.

- Industry
- Academics
- Regulatory
- Public

Historical experience
with that machine

CONTROLS

- Presidency/Prime Minister/Head of State
- Nuclear law/ATREA/Regulation
- Regulatory Body/Industry

PROCESSES OR ACTIVITIES

- 1 International conventions & treaties
- 2 Site Selection
- 3 Feasibility Study
- 4 Policy formulation - nuclear law
- 5 Nuclear Infrastructure (19)
- 6 Financing the development
- 7 Nuclear industry capacity building - domestic (steel industry, civil engineering, radiation protection) - selection of NPP

SUPPORTING MECHANISMS

- and (Ministry of...)
- and (each)
- GENE RESOURCES
- investments, incentives
- financing/funding
- public support





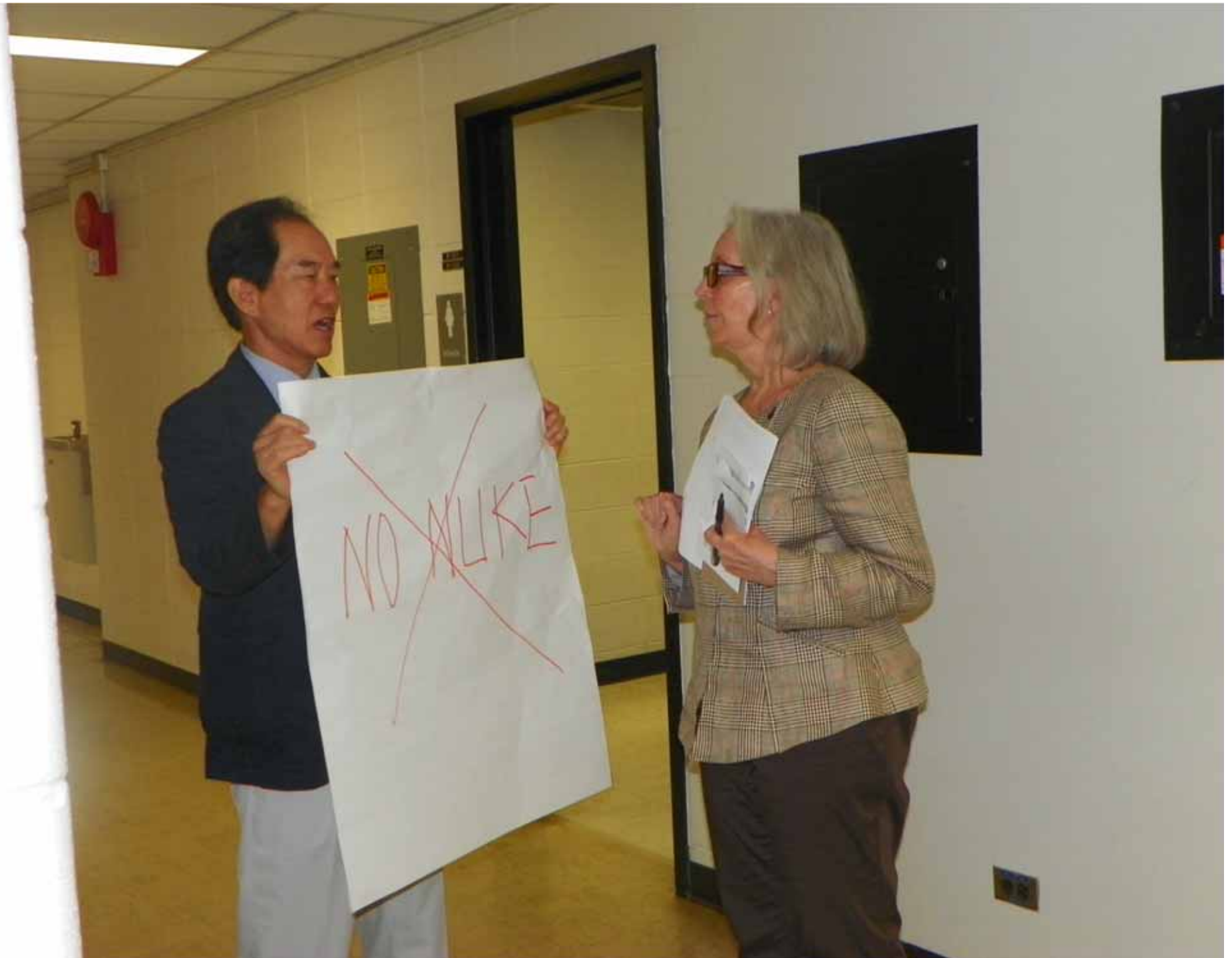


POWERIA



EXERCISE

















- Comm. Channel
- Mass Media
 - Electronic Media
 - Search/Sort/Ref
 - Outreach
 - Reports
 - Focus
 - Social Media

	T1	T2
21 OLD MAN	5	5
14 WOMAN	4	2
13 FRACE	5	3
12 FRIEND	2	4
11 SAILOR	4	4

Old man

om	5	5	5
w	3	2	3
F	3	3	3
Fr	2	2	2
S			

(NUCLEAR ENERGY)
= 1 MILL
(CHE
, ROX G

LEAD
• PHILOSOPHY
TO RO
• ROLE

S/A CONSIDERED
- COST / KW/HR
- TOTAL COST
- COST COST
- LIFETIME
- W
- PRO
- DE
ST
- FLEXIBLE OPS
- MAINTENANCE
- SIZE
- LOCATION
- ACTUAL OPERATION

NUC E
safe
indep
del

* Government
1. elevator
2. 32 10
1. E
2.
3.
4.
5.

1. NUC degraded core
2. human factor
1. stop to outage
1.1 conditions
root cause analysis
corrective actions
license perform improv.
plan
reviews license evaluation





ELC/TRANSDU
OF COMM (PUBLIC)
FINANCE
ENERGY, BLDG. & TRAN
REG. (INDUS) COMMUNITY
TECHNICAL (S) COMMUNITY

STRATEGIC

OVERRIDE

COMMUNITY

KNOW

O

Yellow
EDN
SCRAM

assessment of

ISSUES

1. SAFETY/SECURITY
2. ECONOMIC LOSSES
DUE TO ~~POWER FAILURE~~
UNAVAILABLE
POWER
3. ENVIRONMENT IMPACT
4. COMMUNICATION

NUCLEAR

F

FORCE
NING

PERFORMANCE PR

- YES
- REPEAT PRO
- PROGRAMMATIC
- EDN FAILURE
- UNAUTHORIZED

SAFETY CULTURE

- COMMO
- UNWORK
- TRAINING?
- LACK ACC
- RAISING
- HUMAN ER

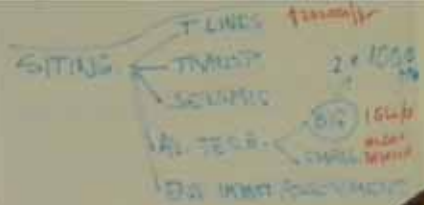






Stakeholders
Officials
Communities
Academics (NGOs)
NGO Organizations
International org's of IAEA etc
Communication
Print & Electronic - Public,
Reports, Directives
& Workshops
(Local/International)
Conferencing

2000 MW/yr
Opportunity for Export?
Developer: Hi-Tech Industrial
- Essential features



NEPIO - Firm Commitment
- Industrial Infrastructure

Task: PWR/BWR/Small
ICANDU

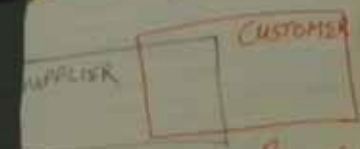
MRE: Nuclear Law
Guidelines, Procedures

1-5yr / 5-10yr

Flavor message

security & sustainability
technology
flexibility
fuel
cost
economic dev't

ACCOUNTABILITY
"THE INTERFACE"



100%
ACCOUNTABLE
FOR WHAT IS
ACCEPTED

Director of Finance

President







Increase funding

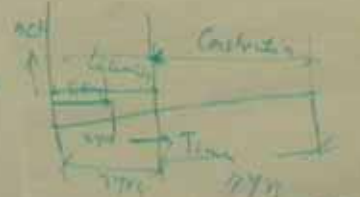
Which PRAC are we in?

NEPIO - Firm Commitment
- Industrial Site/structure

NRC: Nuclear Law
- Guidelines, Procedures

1-3yr / 5-7yr
2-4yr / 5-7yr

Task: DWR/BRW/ Small Re
/ LANDU



PUBLIC PARTICIPATION 1990
WILL DEVELOPMENT STRATEGIES
Increase =
Transparency Dev

3 Elevator map

Public

- Long term energy
- State of art tech
- Clean & cost
- Independent
- Rel
- Ch
- B

dec

op

com/and

land

1) land

2-d.

Head
Regulator

Name
Title

University
of Toronto

Name
Title



CROSS-CUTTING ISSUES?
HP
PT+H
SOME COMPLEX
SIGNIFICANCE / SCOPE?
- FBI?
-> NEED MORE DATA

JUDICIAL
LICENSED
- RECENT
- BUS. PRACTICE

CONCERN
IE
MS
CROSS-CUTTING
- PLEK
- HP

CON
ISSUE
IE 1700
MS 1700















Participants Receive Certificates



Abdelkader Noureddine
ALGERIA

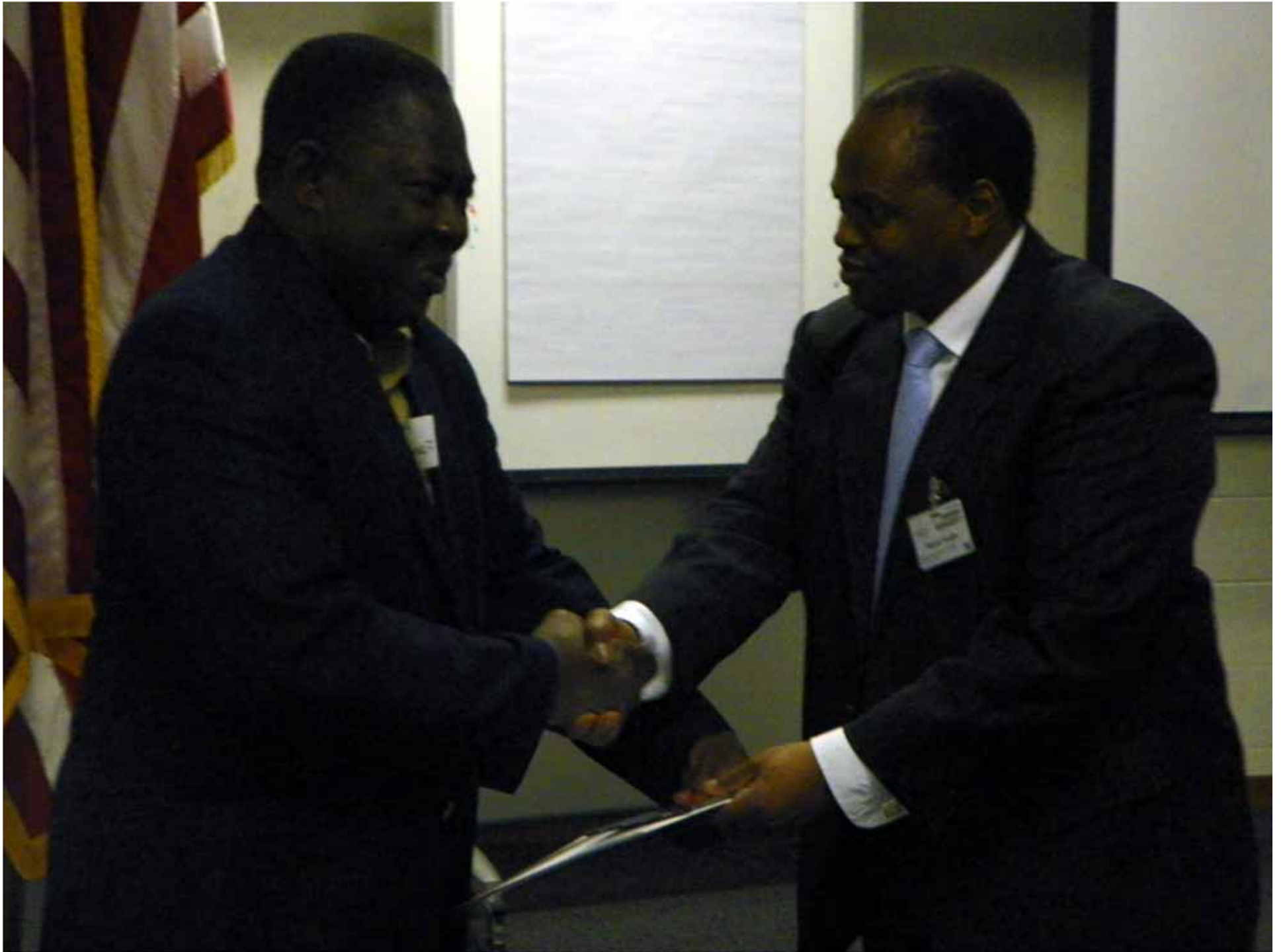






Kolade Dieudonne Athanase Padonou
Benin







Moussa Kone
COTE D'IVOIRE







Innocent Joy Kwame Aboh
GHANA







Winfred Wanjiku Ndubai
KENYA







Susan Evelyne Ombuya
KENYA







Mamadou Amadou Kane
MAURITANIA







Mahaman Rabiou Balla
NIGER







Ebisomu Agedah
NIGERIA







Moustapha Sadibou Tall
SENEGAL







Garry Shaun Kingsley-Wilkins
SOUTH AFRICA



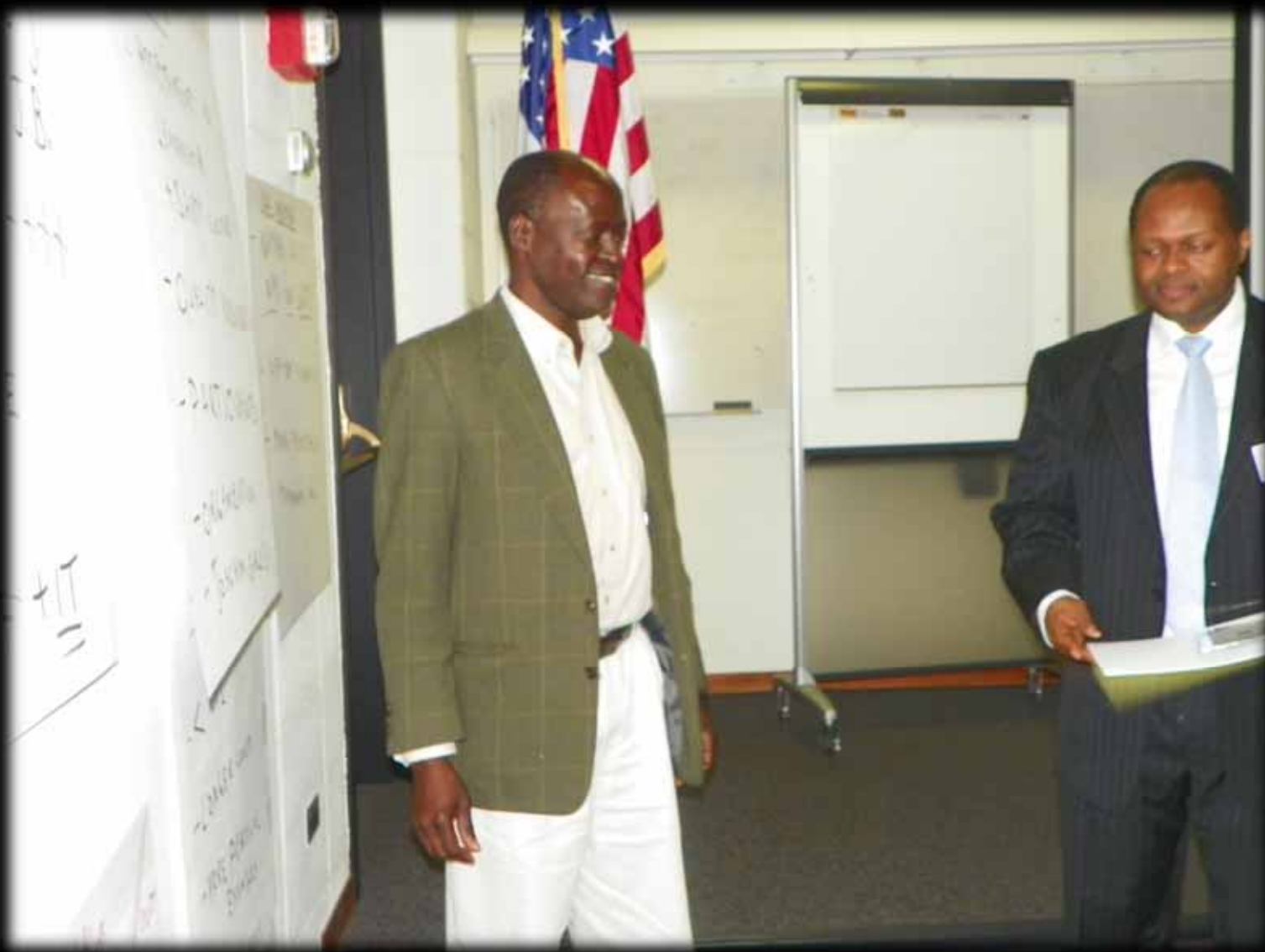




Julius Namusanga Wamala
UGANDA







Mwjarubi Melkizedeck Nyaruba
TANZANIA







Md. Shafiqul Islam
BANGLADESH







Zafar Ullah Mohammed
BANGLADESH







Tuul Baatar
MONGOLIA







Erdev Batjargal
MONGOLIA







Purevsuren Saruul
MONGOLIA







Chirapaporn Laima
THAILAND







Panupong Pingish
THAILAND







Thi Hong Dang
Vietnam







Keti Luli
ALBANIA







Andranik Hakobyan
ARMENIA







Olga Verbitskaia
BELARUS







Josip Lebegner
CROATIA







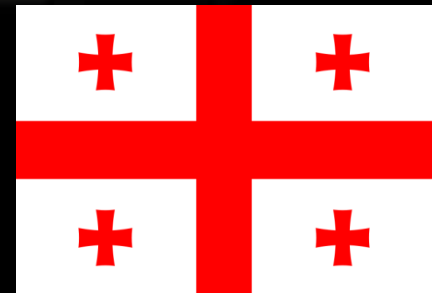
Jolana Korinkova
CZECH REPUBLIC







David Gabidzashvili
GEORGIA







Laszlo Tarnoy
HUNGARY







Virginia Puodziuviene
LITHUANIA







Anton Chaushevski
MACEDONIA







Miroslav Masiar
SLOVAKIA







Vesna Logar Zorn
SLOVENIA







Rasit Kirisik
TURKEY







Feridun Ilkay Saral
TURKEY







Mario Agadakis
ARGENTINA







Hugo Nestor Lis
ARGENTINA







Alberto Augusto Miranda Cuadros
BOLIVIA







Paulo Rocha
BRAZIL







Jesús Manuel Gutiérrez Rodríguez
MEXICO







Thank you Dr. Juhn, for your valuable contribution



LINE

- AGREEMENT IN LEARNING + SKILL CURSE
- QUALITY PRODUCTION
- PARTICIPATION
- ORGANIZATION
- JOCKING GAMES

< WE

- LONG TERM
- FREE PRACTICE EXAMPLES
- ESTABLISHING
- TECH TALKS



**Celebrating
a
Job Well Done**













Farewell

Friends

Handwritten signature