CONTENTS

OPENING SESSION

Welcome Address 3
Z. Domaratzki
Opening Remarks 5
L. Hoegberg
Opening Remarks 7
A. Carnino
Keynote Address 9
M. Rosen

ELEMENTS OF THE NUCLEAR POWER SAFETY STRATEGY
(Session 1)

Safety reviews and basis for the acceptability of continued nuclear power plant operation (Invited Paper)
(IAEA-SM-342/1 I) 15
A. Alonso
Improving nuclear power plant safety through self-assessment and peer review programmes (Invited Paper)
(IAEA-SM-342/2 I) 37
S.G. Berg
Opportunities, support and constraints in connection with infrastructures for safe nuclear power generation (Invited Paper)
(IAEA-SM-342/3 I) 47
S. Kondo

ONGOING SAFETY REVIEWS
(Session 2)

Safety review of operating nuclear power plants in Canada
(IAEA-SM-342/1) 63
E.J. Dunstan
Practice of the assessment of the current operational safety status of nuclear power plants in the Russian Federation
(IAEA-SM-342/10) 79
V.M. Vitkov

Practices of State supervision of nuclear power plants in Germany (IAEA-SM-342/23) 93
D. Keil
The US regulatory approach for ensuring the safety of existing nuclear power plants (IAEA-SM-342/46) 109
S.A. Reynolds, S.R. Stein, S.C. Flanders
Review of the current safety of Ukrainian nuclear power plants (IAEA-SM-342/59) 119
V. Koltakov
Renewal of operating licences of Finnish nuclear power plants (IAEA-SM-342/65) 139
P. Salminen
Deterministic and probabilistic safety assessment of the José Cabrera nuclear power plant (IAEA-SM-342/33) 151
J. Martín, P. Ortega

PERIODIC SAFETY REVIEWS
Regulatory Perspective
(Session 3)

Regulatory inspection of nuclear power plants in the United Kingdom (IAEA-SM-342/21) 165
K.J. Allars, R.S. Howard
Current status of safety regulation for operating nuclear power plants in Japan (IAEA-SM-342/48) 177
A. Sanada
Periodic safety review of the 900 MW(e) pressurized water reactors in the CP1–CP2 series units (IAEA-SM-342/38) 199
C. Le Doaré, M. Blot
Activities of the South African regulatory authority in the safety review of nuclear power plants (IAEA-SM-342/68) 213
G.A. Clapisson, T.F. Hill, P.E. Metcalf
Importance and evaluation of periodic safety reviews in Bavarian nuclear power stations (IAEA-SM-342/24) 223
H. Locke, H. Sacher
Overview of the periodic safety review of nuclear power plants as practised in India (IAEA-SM-342/72) 237
N.K. Jhamb, S.K. Chande
Reviewing the safety of WWER-440 units in Slovakia: A regulatory approach (IAEA-SM-342/30) 247
J. Mišák, Š. Rohár

PERIODIC SAFETY REVIEWS

Utility Perspective

(Session 4)

Safety evaluations of nuclear power plants designed to earlier standards (IAEA-SM-342/50) 259
B. Eendebak, D. Djursing, R.H. Taylor

Assessment of the safety performance of the Paks nuclear power plant units using advanced analysis and comprehensive periodic safety reviews (IAEA-SM-342/28) 275
G. Vajda, J. Gadó, A. Cserháti, L. Vöröss

Safety case reviews at Magnox Electric nuclear power plants (IAEA-SM-342/12) 289
T.Y. Stokoe

The first periodic safety reviews of the advanced gas-cooled reactors in the United Kingdom (IAEA-SM-342/39) 295
P.J. Banks, M.D. Jee, M.D. Hatfield

Periodic safety review of French 900 MW nuclear power plants (IAEA-SM-342/53) 309
A. Le Coguiec, B. Payan

Safety evaluation of operating nuclear power plants built to earlier standards: A Common Basis for Judgement (IAEA-SM-342/34) 321
J. Hoehn, C.I. Grimes

Utility experience with a probabilistic safety assessment as part of a periodic safety review (IAEA-SM-342/25) 337
W. Burchhardt

SAFETY ASSESSMENT METHODS AND EXPERIENCE

(Poster Session 1)

Reactor vessel integrity analysis for the nuclear power plant Kozloduy, Unit 1, with WWER-440/230 type reactors (IAEA-SM-342/29P) 349
R. Goehring, A.M. Kroes, M. Recinella, I.V. Hinovski, M.I. Batishchev

Seismic probabilistic risk assessment for the Krško nuclear power plant (IAEA-SM-342/45P) 351
M.K. Vermaut, P.N. Shah

Approaches to safety risk and reliability evaluation for reactor equipment of CANDU nuclear power plants (IAEA-SM-342/8P) 353
G. Vieru

IAEA activities related to accident analysis of WWER type nuclear power plants (IAEA-SM-342/11P) 354
C. Almeida
Benchmark analysis of safety significant events at the Ignalina nuclear power plant using state of the art codes (IAEA-SM-342/27P) 359
E. Ušpuras, A. Kaliatka
Safety improvement of the V-230 type units of the Kozloduy nuclear power plant in the framework of the EBRD safety account project (IAEA-SM-342/18P) 361
B. Dimitrov, M. Marinov, B. Kaltchev, D. Draltchev, M. Popov
Routine and periodic safety reviews at Torness power station (IAEA-SM-342/2P) 362
D.R. Grove
Safety reviews of nuclear power plants built to earlier standards (IAEA-SM-342/61P) 364
M. Mertins, U. Erven
Routine safety review of the Bohunice nuclear power plant (IAEA-SM-342/44aP) 365
M. Lipár
Safety at the Kernkraftwerk Mühleberg (IAEA-SM-342/73P) 366
D. Haschke, K.H. Alex, G. Markóczy, G. Straub

SAFETY REVIEWS OF SPECIAL ISSUES
(Session 5)

Special safety reviews following accidents and major incidents at nuclear power plants (Invited Paper) (IAEA-SM-342/4 I) 371
L. Hoegberg
Assessment of the integrity of the reactor pressure vessel of Unit 1 of the Kozloduy nuclear power plant and determination of the lifetime of the plant on the basis of the activities performed during the 1996 outage (IAEA-SM-342/19) 383
B.T. Pekov, R.S. Miteva, V. Ranguelova
Use of assessment guidelines for the engineering safety evaluation of the WWER-440/213 reactors of the Dukovany and Bohunice V-2 nuclear power plants (IAEA-SM-342/20) 391
A.B.H. Chevalier, W. Dietrich, M. Šabata, A. Ducháč

Safety review following insights into a major event at Bärsebäck 2: A Swedish example — course of action (IAEA-SM-342/14) 405
L. Carlsson
Aspects of the continued operation of the Ignalina nuclear power plant (IAEA-SM-342/15) 413
P. Vaišnys
Safety enhancement of the Bohunice nuclear power plant V-1 for continued operation (IAEA-SM-342/44b) 429
M. Lipár
Improvement of plant safety and availability by a change of the control circuit design (IAEA-SM-342/70) 439
Myung-Ro Kim, Seong-Kyu Park
Introduction of measures to enhance safety at the Armenian nuclear power plant (IAEA-SM-342/67) 449
G.R. Markosian

FEEDBACK OF OPERATING EXPERIENCE I
(Session 6)

Operating experience feedback: Closing the loop for long term operation (Invited Paper) (IAEA-SM-342/5 I) 475
M. Debes
Operational safety data review (IAEA-SM-342/51) 483
N.K. Hunemuller, R.L. Dennig, E.F. Goodwin
Effective feedback of operational experience of nuclear power plants: Methods and monitoring (IAEA-SM-342/47) 497
A. Spencer, M. Whitehead
Improving the operating technical specifications in French PWR power plants (IAEA-SM-342/52) 507
B. Fillon
Operating experience of Russian nuclear power plants (IAEA-SM-342/57) 511
B.V. Antonov
The role of the Czech Regulatory Authority and its activities in the operational experience feedback process and the safety analysis of the Dukovany nuclear power plant (IAEA-SM-342/42) 523
J. Dušek
Using station in-house operating experience to improve human performance (IAEA-SM-342/63) 543
T.C. Morton

INFORMATION DATABASES AND OPERATING EXPERIENCE FEEDBACK
(Poster Session 2)

Advanced database of reports on incidents in nuclear power plants to be used in sharing lessons and improving safety (IAEA-SM-342/43P) 557
D. Ruatti, S. Bastin, Z. Kříž, V. Tolstykh

Practices and actions concerning feedback and analysis of operating experience in German nuclear power plants (IAEA-SM-342/22P) 558
H.P. Berg, T. Fröhmel

Safety indicator development in Vattenfall (IAEA-SM-342/62P) 560
B.Y. Flodin

Specific methods used and results of the regulatory review of Unit 1 of the Cernavoda nuclear power plant during the licensing process in the commissioning phases (IAEA-SM-342/6P) 563
L. Biro, D. Serbanescu

Basic principles and results of the regulatory review of Unit 1 of the Cernavoda nuclear power plant and integration of the regulatory experience in Unit 2 (IAEA-SM-342/7P) 564
D. Serbanescu, L. Biro

Development of emergency operating procedures for WWER reactors, using a French methodology (IAEA-SM-342/41P) 565
Yu. Kopiev, B. Mohsen, C. Zilliox, N. Tvaroska, E. Olivier

FEEDBACK OF OPERATING EXPERIENCE II
(Session 7)

Nuclear power plant performance and safety: Do they deteriorate with age? (IAEA-SM-342/36) 571
V. Madden

Feedback and analysis of the operating experience of Japanese light water reactors (IAEA-SM-342/49) 581
S. Takashima, K. Takahashi, K. Nii

Study of unusual events in nuclear power plants by psychological means (IAEA-SM-342/35) 591
V. Abramova, A. Frischknecht, V. Tolstykh

Review of the operating experience feedback of French nuclear reactors (IAEA-SM-342/37) 611
C. Bonnet, C. Faille, M. Blot

SUMMARY OF THE PANEL AND THE SYMPOSIUM

Panel on the basis for continued safe operation of nuclear power plants

Chairman's Summary 629
L. Hoegberg
Rapporteur's Report
Results and perspectives of the symposium 634
P.M. Herttrich

Chairmen of Sessions and Secretariat of the Symposium 645
List of Participants 647
Author Index 663
Index of Papers and Posters by Number 665