ANTENNA EXTRA
JUNE 2015
Handbooks and Webinars from ANT International

FUEL FABRICATION PROCESS

The objective of the Fuel Fabrication Process Handbook Rev. I is to provide guidance for a cost effective audit which uses audit time on areas which are most likely to affect the performance of the PWR/VVER and BWR fuel. The FFPH provides the "what, why and how" to look at in an audit by:

- Listing the generic fabrication process steps for all components and their assembly (what to look for). Identifying important audit points and the attendant potential effect of deviations on performance (why to look).
- Assess the fabrication and QC process control at critical points (how to look).

The authors of this revised Handbook are Mr. Alfred Strasser, Mr. Peter Rudling, Dr. Charles Patterson, Dr. Graham Walker and Mr. Kenny Epperson.

Product information

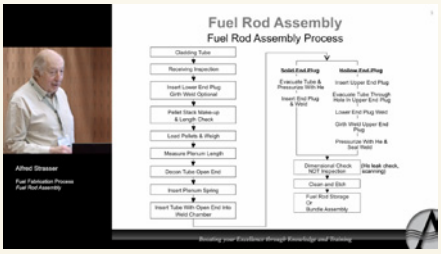
Sample

Alfred Strasser about the FFPH

The associated Webinar consist of a recorded live Seminar, with enhanced slides and sound, streamed from our website.

Each topic covered in the Webinar is referred to in the Fuel Fabrication Process Handbook to allow the digestion of relevant background information before watching the Webinar.

Lecturers are Mr. Alfred Strasser and Mr. Peter Rudling.



Product information

Sample

For further questions and inquiries, please contact Angela Olpretean;
angela.olpretean@antinternational.com or phone; +46 (0)70-263 13 77.

Feedback on the Fuel Fabrication Process Handbook:

"I never leave home without it when I am performing an audit. It has become an invaluable reference to ensure that I am auditing the important characteristics of fuel fabrication."

SCOTT D. FERGUSON
Wolf Creek Nuclear Operating Corporation

"Readable and useful for engineers in nuclear fuel"

JAN ALMBERGER
Vattenfall Fuel (retired)

"A great way to learn the fuel fabrication process"

MATT KIRKLAND
Fermi 2 NPP

Feedback on the Fuel Fabrication Process Seminar:

"Very good seminar"

GÖRAN BERGSHEM
Vattenfall

"An excellent seminar, it was very useful for me"

JOLANDA CAPPAERT-DE VOS
EPZ

"The seminar approach was very practical and well put together. The summaries, priorities and useful tips were very good"

JENNI LAINE
STUK

"The seminar topics were so interesting that I would have liked the seminar to be longer"

KAISA PELLINEN
Fortum

Editor & publisher: Peter Rudling

Feedback on the Fuel Design Review Handbook:

"Decades of experience in a single volume"

HAJIME FUJII
Mitsubishi Nuclear Fuel Co. Ltd.

"The Fuel Design Review Handbook is a very impressive and useful document"

MALCOLM B. SMITH
Callaway NPP

Feedback on the Fuel Design Review Seminar:

"Everything was very good. Interesting presentations with a lot of material. It is a big area to cover."

BIRGITTA GUSTAFSSON
OKG

Listen to Frank Holzgrewe
BKW

FUEL DESIGN REVIEW

THE FUEL DESIGN Review Handbook is a guide to the items that have the greatest influence on fuel performance and prioritize the audits that are recommended. A review of all aspects of the fuel design is not feasible or necessary within the time constraints of the utility and the vendor. The objective is to do the most effective audit in the shortest time period. The Handbook provides the "what, why and how" for the audits by describing the design criteria, their influence on performance and the approach to reviewing the associated design features for the three distinct technical areas of nuclear, thermal-hydraulic, and mechanical/materials design, each written by experts in their field. A guide for design tool verification is included as well as a guide to auditing the vendor design QA system.

The authors of this Handbook are Mr. Al Strasser, Mr. Kenny Epperson, Mr. Jerald Holm, Mr. Peter Rudling, and Mr. Sten Lundberg.

Product information

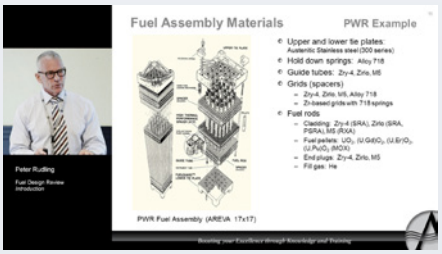
Sample

Alfred Strasser about the FDRH

The associated Webinar consist of a recorded live Seminar, with enhanced slides and sound, streamed from our website.

Each topic covered in the Webinar is referred to in the Fuel Design Review Handbook to allow the digestion of relevant background information before watching the Webinar.

Lecturers are Mr. Alfred Strasser, Dr. Richard Collingham and Mr. Peter Rudling.



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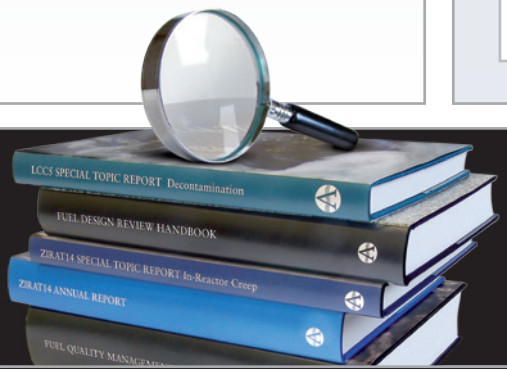

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NEW HANDBOOK AVAILABLE

We are happy to announce that the important Dry Storage Handbook now is available.

This handbook contain a technical assessment of the expected performance of spent nuclear fuel (SNF) during extended dry-storage time periods and the condition of such fuel at the end of dry storage.

The principal focus of the reviews is on SNF and the effects of dry storage rather than on dry-storage containers and the related storage facilities.

The objective is to provide background information on the likely behaviour of materials comprising water reactor fuel assemblies and on the performance of integral assemblies under conditions typical of dry storage for extended intervals of time.

In brief, the technical assessment supports a conclusion that, although technical issues have been postulated with regard to long-term storage, there are no high-risk concerns with the extension of dry storage to long times; with proper planning and implementation, the risks are expected to be low.

Authored by Dr. Charles Patterson and Mr. Friedrich Garzarolli with contributions by Dr. Ron Adamson and Dr. Kit Coleman.

Deliverables: The book will be delivered as a searchable CD-ROM with high resolution pdf files, and an optional hardcover report printed in four-colour.

An optional 1–2-day Dry Storage Seminar on site will be offered during 2016

Product Information

Sample

For further questions and inquiries, please contact Angela Olpretean; angela.olpretean@antinternational.com or phone; +46 (0)70-263 13 77.

Dr. Charles Patterson

Mr. Friedrich Garzarolli

Dry Storage Handbook content list:

1 Introduction
2 General conditions and cross-cutting issues
3 Thermal profiles and conditions
  3.1 Decay heat
  3.2 Dry storage temperature
  3.3 Drying and thermal cycling
4 SNF characteristics at end of reactor service life
  4.1 Burnup, fluence and radiation damage
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  5.7 Nonstandard SNF
  5.8 Fuel behaviour in transport and storage accidents
6 Conclusions regarding fuel performance during dry storage

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