

Öko-Institut e.V. • Elisabethenstraße 55-57 • D-64283 Darmstadt

U.S. NRC  
E. William Brach  
Director of the Spent Fuel Project Office  
Mail Stop O 13 D 13  
Washington DC  
20555-0001  
USA

#### Büro Darmstadt

Elisabethenstraße 55-57  
D-64283 Darmstadt  
Telefon +49-(0)6151-81 91-0  
Durchwahl -19  
Fax +49-(0)6151-81 91-33  
E-mail [kallenbach@oeko.de](mailto:kallenbach@oeko.de)  
Darmstadt, August 07<sup>th</sup> 2001

Geschäftsstelle Freiburg  
Postfach 6226  
D-79038 Freiburg

Hausadresse  
Binzengrün 34a  
D-79114 Freiburg

Telefon +49-(0)761-452 95-0  
Fax +49-(0)761-47 54 37

#### Questions on dry interim storage in the US

Dear Mr Brach,

last week I talked to Mr Kabotz on the telephone and he invited me to send a letter to your office if I had special questions on dry interim storage in the U.S.. Thank you very much for this possibility.

I would like to give you a short introduction of myself and the background of my inquiry first: I am working for the Öko-Institut e.V. (Institute for Applied Ecology) in the department for nuclear technology and plant safety. Our department works mainly on commission for the government agencies responsible for the supervision and licensing of nuclear facilities.

At the moment we are working on a contract with the Swiss nuclear authority concerning international criteria for and experiences with dry interim storage of spent fuel. As in Switzerland the ZWILAG (a central interim storage which is currently passing the licensing procedure) is a facility for dry interim storage of spent fuel in metallic casks (e.g. the TN 24) which will be set up in a storage hall, our work focuses mainly on comparable facilities. It would be very helpful for us if you could give me some information about the situation in the U.S., focussing on the kind of facilities mentioned above. (I am not sure if there are storage halls for spent fuel in casks in the U.S. as well or if most facilities work on open air, like e.g. Surry. In the second case we would like to take those open air facilities into consideration).

To specify our points of interest I am listing some key words and questions which cover the main issues of our study:

#### Büro Berlin

Novalisstraße 10  
D-10115 Berlin  
Telefon +49-(0)30-280 486-80  
Fax +49-(0)30-280 486-88

Geschäftsführung:  
Uwe Ilgmann

#### Vorstand:

Raymond Becker  
Katrin Grüber  
Hannegret Hönes  
Holger Krawinkel  
Dorothea Michaelisen-Friedlieb  
Gerhard Roller  
Beate Zimpelmann  
der Geschäftsführer  
drei MitarbeiterInnen

#### Wiss. Kuratorium:

Carl Amery  
Prof. Dr. Armin Bechmann  
Prof. Dr. Hartmut Bossel  
Dr. Erhard Eppler  
Prof. Pierre Fornallaz  
Prof. Dr. Ludwig von Friedeburg  
Prof. Dr. Martin Führ  
Hermann Graf Hatzfeldt  
Prof. Dr. Doris Janshen  
Prof. Dr. Regine Kollek  
Prof. Dr. Heinrich Frhr. von Lersner  
Prof. Dr. Gertrude Lübke-Wolff  
Prof. Dr. Peter C. Moyer-Tasch  
Dr. Hans George Otto †  
Prof. Dr. Eckard Rehbinder  
Dr. Hans Erich Schött  
Dr. Christian Schütze  
Prof. Dr. Udo Ernst Simonis  
Prof. Dr. Frederic Vester

#### Bankverbindung

Sparkasse Freiburg –  
Nördlicher Breisgau  
BLZ 680 501 01  
Konto-Nr. 2 063 447

#### Postgirokonto

Postbank Karlsruhe  
BLZ 660 100 75  
Konto-Nr. 136 018-759

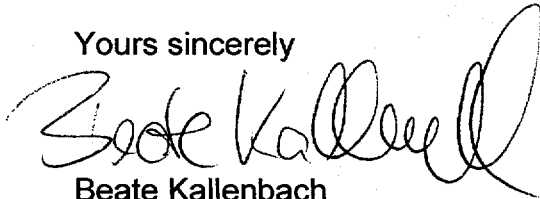
NM5524

- type of casks / type of storage building
- period of validity of licenses for facilities / casks
- criteria for radiation doses at the surface of casks / outside the building
- criteria for leak tightness at loading of cask / under normal storage conditions / in accident conditions
- criteria for spent fuel temperature and cask temperature
- criticality (calculations only with fresh fuel or credit of burn-up?)
- maximum allowed burn-up / minimum cooling time before loading
- storage of defective fuel elements, if existent
- system of surveillance of the loaded casks
- system of controls whilst loading
- experiences with loading
- experiences with storage
- Are there any criteria related to the retrievability after the storage time?
- Which is the concept for repairs or unloading of the cask, should this be necessary?
- Are inside inspections planned during the storage period?

I would be very grateful if you could help me with these questions. Following Mr Kobetz's advice I got the NUREG-papers Nureg 1536 and Nureg 1567 from the internet. So if some aspects of my inquiry are covered by those papers it might be easier for you to refer to the relevant passage in the Nureg papers. I will be able to find it there.

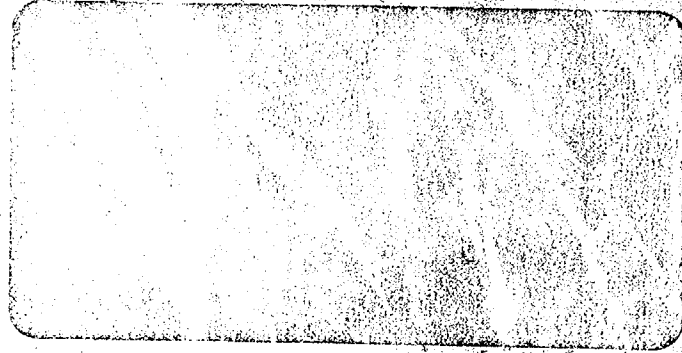
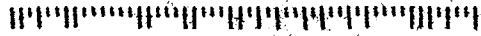
Thank you very much for your support. If it is possible for you, you might email your answers to [kallenbach@oeko.de](mailto:kallenbach@oeko.de) as it takes less time than a letter by post.

Yours sincerely



Beate Kallenbach

20553-0001



By Air-Mail

GBM  
Christoffel-  
Blindenmission  
Christoffel-Blindenmission  
Nideltingenstr. 19A  
D 54925 Benshof 1

