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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

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March 8, 1988

MEMORANDUM FOR: Chairman Zech  
Commissioner Roberts  
Commissioner Bernthal  
Commissioner Carr  
Commissioner Rogers

FROM: Harold Denton, Director  
Office of Governmental and Public Affairs

SUBJECT: TRANSNUKLEAR/NUKEM AFFAIR - GPA VISIT TO EUROPE

*Carl H. Kamm*  
*for*

During the week of February 22 I visited EURATOM and West German officials in Brussels, Luxembourg and Wiesbaden, West Germany to discuss nuclear safeguards matters, with particular emphasis on the Transnuklear/NUKEM (TN/NUKEM) affair. I was accompanied by Marvin Peterson from GPA/IP, who also met with IAEA officials on this matter on February 26. A list of the officials contacted is at Enclosure 1.

In summary, all officials contacted have concluded that the TN/NUKEM affair involved irregularities only in the handling of low-level radioactive wastes and not in the handling of sensitive safeguarded nuclear material. Although several investigations and governmental inquiries are still underway, no information has been developed to substantiate the allegation of diversions of sensitive nuclear material to Libya or Pakistan. A detailed accounting of our meetings is contained in the attached (Enclosure 2) reporting cables from Brussels and Bonn.

With regard to EURATOM and IAEA safeguards actions concerning TN/NUKEM, a joint inspection of TN/NUKEM facilities was conducted in January, during which no significant irregularities were found concerning the handling of safeguarded material. This inspection was conducted because of the concerns raised by the TN/NUKEM affair and during it the inspectors took a complete physical inventory of the nuclear material at TN/NUKEM. In addition, additional steps beyond the normal inspection regime were taken to inspect nuclear waste storage facilities and containers at TN/NUKEM in order to provide additional assurances that safeguardable material was not diverted to unauthorized areas.

With regard to making arrangements for the resumption of normal processing of nuclear materials in West Germany (and Europe in general), all officials stated that they saw no basis for suspending the transportation authorities of TN/FRG's-affiliated companies, including TN/Paris and TN/USA. TN/Paris has been allowed to conduct its operations without interruption and recently has been authorized to arrange for the shipment of a completed HEU fuel assembly from NUKEM to a French research reactor. The West German officials indicated that they expected to lift NUKEM's suspension within a month, which would permit them to resume the receipt and processing of nuclear material from

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The Commissioners

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the U.S. and other countries. However, it appears unlikely that TN/FRG will ever be allowed to resume operations and that its functions and personnel will probably be taken over by its parent corporations and reassigned to different companies. One likely outcome of this reorganization is that there will be no direct organizational connection between waste processing activities and those activities involving the processing of sensitive nuclear materials.

The attached summary (Enclosure 3), was provided to NRC by Demetrius Perricos, the official responsible for reviewing the TN/NUKEM affair for the IAEA. It was prepared by a NUKEM spokesman for presentation at a recent conference in Switzerland and is considered by the IAEA to present an accurate summary of events.

Our contacts in Europe indicated that the affair is at least partly the result of the lack of rigorous regulatory oversight over low-level waste disposal operations. In the FRG, this situation has been further complicated by a complex regulatory regime involving various licensing authorities extending from local jurisdictions to the Federal level. It is likely that significant regulatory changes in the nuclear waste area, at least at the local and federal level, will result from the TN/NUKEM affair.

Harold R. Denton, Director  
Office of Governmental and  
Public Affairs

Enclosures:

1. List of officials contacted
2. Reporting cables from Brussels and Bonn
3. Summary of TN/NUKEM affair/Pompetzki

cc: OGC  
EDO  
SECY  
Richard Stratford, Dept. of State

List of Key Officials Contacted February 1988

GPA Visit to Europe

1. Georg Von Klitzing  
Director-General  
Euratom Supply Agency
2. Dr. Edward Bennett  
Director for Nuclear Safety  
European Commission
3. Fabrizio Caccia Dominioni  
Director, Nuclear Energy  
European Commission
4. Wilhelm Gmelin  
Director  
Euratom Safeguards Directorate
5. Walter Stanners  
Director, Conception Division  
Euratom Safeguards Directorate
6. Dr. Manfred Popp  
State Secretary for the Environment and Reactor Safety  
Hesse, West Germany
7. Demetrius Perricos  
Coordinator, Safeguards Operations  
Division "C"  
IAEA

First of all, I want to thank Peter Feuz, who asked me to make some remarks on the headlines concerning TN and Nukem. I appreciate having perhaps the opportunity to correct some mistakes and errors dominating the public discussion, which has been, as I think, evoked by the media.

So, what happened?

In March 1987 one of the new Managing Directors of TN revealed some cases of bribery, which had occurred between TN-employees and such of some German power plants. During a period of five years, a sum of about 6 million Marks had been paid just to - as the bribers said, get orders. On the other hand, client companies stated that the bribery would not have been necessary, because TN would have got orders as well. We don't actually know why the money vanished.

In consequence of these investigations, half a dozen people were fired. These people had taken part in the bribery or knew about it.

In December 1987, the new Director of TN's Radioactive Waste Division discovered in close cooperation with the Nuclear Centre in Mol/Belgium, that radioactive waste had been returned to German power plants wrongly labelled. As you certainly know, the German plants are obliged to intermediate storage of their radioactive waste on site, until a final disposal facility is available.

Since there are only small capacities in Germany for radioactive waste treatment, TN transported throughout the years some 2400 drums of low level waste to Mol, which were returned to the German sites. Documents in Mol confirmed that 321 of these drums were labelled wrongly; they contained low active waste from a Belgian reactor. Under aspect of radiation, this waste was comparable to the original. The only reason for this transaction can be that Mol was unable to treat the original waste immediately and that TN would gain their customer's payment without delay.

The Manager being responsible for the wrong labelling was expelled.

At this point, I want to put emphasis on the following fact: The Managing Directors of TN have been completely reshuffled in April 87. The new Managing Directors themselves carried out investigations. Only a few people failed, but when you read the newspapers, the whole company is guilty.

So far, some remarks on the so-called TN-affairs. Since I represent two companies, I have to mention another one, the Nukem affair.

In 1983 Nukem sent a trial amount of low level waste for volume reduction to Mol. The resulting ashes were delivered back to Nukem in two half-filled drums. The treated waste was delivered back for processing

in order to recover the still-remaining uranium. Within the framework of Nukem's existing license, the contents of the two drums were added to other waste stored at Nukem at the time. This operation was not subject to registration.

Thereafter, the majority of this type of waste was also combusted at Mol and delivered back in 50 drums. In 1985 samples were taken from the 50 drums in order to test whether the uranium contained in the ashes could be recovered. It was thereby ascertained that the ashes were contaminated with cobalt-60 and caesium - 137, which could not have been contained in the original material. The impurities could therefore only have originated from the incinerator at Mol. Due to the presence of the impurities, the drums could not be stored at Nukem's facilities. They were therefore transferred to TN, where they remain today. At the same time, analyses of the material showed that while the average enrichment level of the 50 drums was 0.66 % U-235 the enrichment level of some of the samples was actually above 0.7 % U-235, and 0.7 % U-235 is the maximum enrichment level under the TN storage license. The drums concerned might therefore not be permitted to be stored at Transnuklear's facility.

Therefore, since January 14, Nukem's operating license has been temporarily suspended, but not withdrawn. This suspension is based on accusations by the responsible authorities that Nukem did not timely and completely inform the authorities about the contents of the 50 drums, especially some slightly enriched uranium. This suspension is restricted to Nukem's activities related to the handling and processing of radioactive materials, like the fabrication of Material Test Reactor and High Temperature Reactor fuel elements. The activities of Nukem's other operating divisions, that means Fuel Cycle Services, Process Engineering, and the Neutronik Division, as well as the business of Nukem's subsidiaries abroad are not affected.

I come to my next point. At the same time politicians and the media in the FRG have made allegations on the basis of information received from persons unknown, that there is reason to believe that Nukem and/or TN have violated the Treaty on the Non-Proliferation of Nuclear weapons by supplying plutonium suitable for nuclear arms to Pakistan and Libya. The Director of Public Prosecution entrusted with the investigation for the matter, was unable to provide evidence for the unfounded suspicion. Only two business transactions have been made with Pakistan:

- Transnuclear has, on behalf of the Atomic Energy of Canada Ltd, and Siemens, transported to Pakistan cobalt-60 sources for medical purposes, for example to the Punjab hospital.
- In 1978, Pakistan bought from Nukem 10.45 kg of natural uranium in the form of  $UF_6$  for laboratory purposes. The Euratom Supply Agency was notified accordingly of this transaction.

Unfortunately, the allegation was nevertheless accorded so much attention in the national and international media that the politicians are

under public pressure. Dr. Wallmann, the Minister President of the Federal State of Hessen, gave an ultimative demand for the resignation of the two Nukem Managing Directors Peter Jelinek-Fink and Karl-Gerhard Hackstein. The third one, Manfred Stephany, had already resigned his office as Managing Director of Nukem and Chairman of the Board of Transnuklear in order to allow a fresh start at Transnuklear. The Federal Minister of the Environment, Töpfer, has temporarily withdrawn Nukem's operational permit for the processing of nuclear fuels.

Both, Mr. Töpfer and Mr. Wallmann subsequently announced that they had not made their decision on the basis of the suspected proliferation of materials for nuclear weapons, but on the basis of the fact that, as a result of the bribery affair at Transnuklear and because of the presumed irregularities at Nukem itself, the Nukem Management had violated its supervisory obligation.

Since January 18, Degussa temporarily has taken charge of the business of Nukem, so that Nukem can resume its normal functions as soon as possible. The structure of the shareholders is not affected by this. We all hope that both companies Nukem and Transnuklear can win back the confidence of their customers and the public.

Re: FOIA-90-355

APPENDIX E

RECORDS BEING PLACED INTO THE PDR UNDER THE ABOVE REQUEST NUMBER

<u>NUMBER</u>	<u>DATE</u>	<u>DESCRIPTION</u>
1.	1/27/88	SECY-88-29 "Demand for Information from Transnuclear, Inc. (14 pages)
2.	1/29/88	Memo to H. R. Denton from S. J. Chilk re: SECY-88-29, Demand for Information from Transnuclear, Inc. (1 page)
3.	2/1/88	Memo to H. R. Denton from S. J. Chilk re: SECY-88-29, Demand for Information from Transnuclear, Inc. (1 page)
4.	3/8/88	Memo to Chairman Zech, et al., from H. Denton re: Transnuclear/Nukem Affair - GPA Visit to Europe (6 pages)