

**Detroit  
Edison**

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June 21, 1985  
NP-85-650

Mr. James G. Keppler  
Regional Administrator  
Region III  
U. S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

Reference: Fermi 2  
NRC Docket No. 50-341  
NRC Facility Operating License No. NPF-33

Subject: Transmittal of Report  
Pursuant to 10CFR31.5(c)(5)

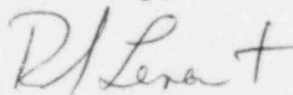
As requested by Mr. D. J. Sreniawski of NRC Region III, Detroit Edison is providing this report pursuant to 10CFR31.5(c)(5). As required by the section, this report describes an occurrence of damage to the seal of the source material in an oil analyzer.

The sealed source contained in the device is maintained under License Number 20-19842-026 issued to Oxford Instruments North America, Inc., the manufacturer of the device.

Oxford is filing a report with the Administrator Region I. Detroit Edison has requested a copy of the report and will forward a copy to Region III when it is available.

If you have any questions regarding this matter, please contact Mr. Lewis Bregni, (313) 586-5083.

Sincerely,



R. S. Lenart  
Superintendent  
Nuclear Production

cc: P. M. Byron  
N. J. Chrissotimos  
D. J. Sreniawski  
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## Report on Damage to Seal of Source Material

### Pursuant to 10CFR31.5(c)(5)

On June 6, 1985, Mr. T. J. Ireland, an employee of Oxford Instrument, was at the Fermi 2 site performing repairs to an oil analyzer supplied by Oxford. The analyzer is a Model Oxford Lab-X2000 x-ray fluorescence with an Iron-55 source of a maximum activity of 20 millicuries.

Normally, access to the source material is not required to perform repairs. However, in this case the repairs did require access to the source material. Only the vendor has the keys to access the source material which was why it was necessary to have someone from Oxford perform the repairs.

While making an adjustment to the device, the surface covering of the source seal was scratched thereby permitting contamination by the Iron 55 source material. This resulted in contamination of Mr. Ireland's hands to 400 cpm and to his trousers to 2000 cpm. The contamination was found during a routine frisk, and no further contamination was detected on his person, or his clothing. It should be noted that all of the exposure levels were well below 10CFR20 limits.

Immediate corrective action taken included:

1. Decontamination of Mr. Ireland to less than 100 cpm. His trousers had to be confiscated;
2. The oil analyzer was surveyed for loose contamination, then bagged and transferred to a controlled area;
3. Area surveys were performed as well as surveys of Mr. Ireland's personal effects and his car. Minor levels of contamination were found on a work bench and were removed. No detectable contamination was found at the car.
4. The Radiation Safety Officer for Oxford was notified of the leaking source.

A representative for Oxford visited the Fermi 2 site to assess the situation and to arrange for transfer of the analyzer to their facility in Massachusetts.