

E. W. Smith, Director  
Compliance Division, SAN

E. E. Book, Inspector  
Compliance Division, SAN

NUCLEAR CORPORATION OF AMERICA, ISOTOPE  
SPECIALTIES COMPANY DIVISION, BURBANK, CALIFORNIA,  
LICENSE NO. 4-530-6, REPORTED OVEREXPOSURE

SYMBOL:CB:RIS

On January 11, 1961, Isotope Specialties Company notified the Director, Division of Licensing and Regulation, by letter that an employee of that company had received an exposure indicated on his weekly film badge of 1350 mrem. This resulted in a 13-week total of 3262 mrem. On February 28, 1961, E. E. Book, SAN Compliance Division, visited the Burbank facility of Isotope Specialties Company to investigate the reported overexposure.

Dr. Kenneth W. Newman was contacted. Dr. Newman was General Manager of Isotope Specialties Company at the time of the overexposure. Isotope Specialties Company was sold to the U.S. Nuclear Corporation in January 1961 and Dr. Newman said he was the only member of the old Isotope Specialties Company management who was still around. He also said that when the company was sold, all records, including dosimetry records, were transferred to U. S. Nuclear Corporation, and that Isotope Specialties Company now existed only as a "brand name" which would be handled by U.S. Nuclear Corporation.

Dr. Newman could not remember much about the overexposure, and could not recall the name of the man involved. He was then shown a copy of the original letter which had been sent to DLR, and which he had signed. He was unable to add much additional information except that the manipulation of cobalt-60 was normally done in Isotope Specialties Company shielded cell, using "over the wall" type manipulators. He said that incidents such as this were investigated by Mr. John Vaden, former Health Physicist for IBC, but that normally no written report of the investigation was prepared for IBC files.

Dr. Horman and this inspector then went to U. S. Nuclear Corporation to examine the radiation exposure records. These records showed that the employee involved in the reported overexposure was Arthur Seibel. This name refreshed Dr. Horman's memory. He said that Nuclear Consultants Corp., of California (license 4-3468-1) was doing the film badge work for Isotope Specialties Company at that time. He said that ISC management had doubted the validity of the badge reading, mainly because of Seibel's associated low dosimeter readings but also because people working with Seibel did not receive a similar unusual exposure. He said that ISC contacted the badge supplier about the matter but was told that the film appeared to have received an actual exposure. Dr. Horman said that Seibel was no longer working for ISC when the film badge results were received, and that Seibel had accepted a job with the Beckman Instrument Company, Fullerton, California, and that Seibel's new job did not involve radiation work.

A copy of the ISC personnel monitoring record for Arthur Seibel is attached as Annex A of this report. This record shows that Mr. Seibel's film badge indicated 1350 mrem and his dosimeters indicated 350 mrem for the 25th week of the second half of 1960. According to our calculation this would be the week of December 19 to December 24. Mr. Seibel's recorded 13-week total for the period ending December 24 was 3262 mrem as indicated by his film badge and 1190 mrem as indicated by his pocket dosimeter.

Because of the present status of Isotope Specialties Company it is doubtful that additional investigation of this incident is justified. The radiation overexposure, if in fact there was an overexposure, was not large enough to result in detectable damage to the individual. The amount by which 1960 10 CFR 20 limits were exceeded is probably within the limits of interpretation error encountered in a normal film badge program. This inspector recommends the case be closed.

Attachment:

Annex A

# CAMPBELL SPECIALTIES COMPANY

General, Arthur

From July 3 to Jan. 2, 1961, pages 45, 588 r July 2

			No. of PSK	PS SK	M.E.	12 WK. Total E.D.D.	13 WK. Total E.D.D.
1	0	1	-	30		1202	1315
2	0	2	-	15 + 200N		992	1160
3	0	1	-	15		147	580 + 200N
4	0	1	-	40		101	565
5	0	1	-	18		80	540
6	0	1	-	0 + 4380		30	640
7	0	1	50	110		50	310
8	0	1	0	95		50	40
9	0	1	137	175		187	90
10	0	1	200	240		187	635
11	0	1	110	850		487	765
12	0	1	0	50		537	1290
13	0	1	0	35		507	1140
						587	1370

14	0	1	160	185		697	1415
15	0	1	140	305		187	1765
16	0	3	260	400 + 1300		1097	2000
17	0	1	205	210		1302	2480
18	0	1	15	400		1327	2165
19	0	1	0	90		1827	2935
20	0	1	0	30		1327	2175
21	0	1	0	20		1827	2100
22	0	1	0	80		1190	2105
23	0	1	0	45		950	2510
24	0	1	0	3		140	1965
25	0	1	300	11350		1190	3262
26	0	1	0	30		1190	

Employed 10-1-55 5 (4-18) =

Born 7-20-11 5 (29-18) = 55 r

Neutron body dose reported in columns above

50, 010 ml  
Rec'd 11/15/61  
to 1-2-61

ANNEX A