

July 11, 2003

***THIS EVENT IS NOT FOR PUBLIC DISCLOSURE PER AGREEMENT STATE REQUEST  
UNTIL July 14, 2003***

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-IV-03-034

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the Region IV staff on this date.

**Facility**

Monsanto Chemical Plant  
Luling, Louisiana  
Louisiana Agreement State Licensee

**Licensee Emergency Classification**

Notification of Unusual Event  
 Alert  
 Site Area Emergency  
 General Emergency  
 Not Applicable

**SUBJECT: FAILURE OF FIXED GAUGING DEVICE RESULTING IN RADIATION  
EXPOSURES TO MEMBERS OF THE PUBLIC (LICENSEE WORKERS)**

**DESCRIPTION:** On July 10, 2003, the Louisiana Department of Environmental Quality (DEQ) notified NRC's Region IV Office and the Operations Center of an ongoing event involving a damaged nuclear gauging device that resulted in radiation exposures to four workers at the Monsanto Chemical Plant located in Luling, Louisiana (Monsanto).

On July 10, 2003, Monsanto, a State of Louisiana licensee, reported that one of its fixed gauging devices, a Berthold Model LB7-442 containing a cesium-137 sealed source with a nominal activity of 37 gigabecquerels (1 curie) was damaged, and the source was in an unshielded condition. The licensee stated that on June 29, 2003, a Monsanto employee noticed that the gauge's handle mechanism had broken off and fallen to the floor beneath the gauge. The worker then picked up the broken pieces, which apparently included the cesium-137 sealed source, and took them to the Monsanto "Planner's" office, placing the parts on the Planner's desk-top. The source remained on the Planner's desk, with the Planner physically present, for approximately 50-60 hours.

On July 10, 2003, after realizing that the unshielded cesium-137 source was on the Planner's desk, the licensee evacuated the building and secured the area. The licensee performed radiation measurements and secured a perimeter out to the 1 milliroentgen per hour area. The licensee has contacted the manufacturer (Berthold) who is expected to be on site the morning of July 11, 2003, to retrieve the source. A representative from DEQ has been dispatched to the site and is expected to be onsite during recovery operations.

Based on preliminary information provided to DEQ by Monsanto, DEQ has calculated that the Planner may have received a whole body dose of up to 40 rem, and the individual who carried the broken gauge parts may have received an extremity dose of up to 1,800 rem. Monsanto's physician has examined the workers and did not identify any erythema or other symptoms of high radiation exposure. DEQ provided the physician with contact information for Radiological Emergency Assistance Center in Oak Ridge, Tennessee, (REAC/TS) and the licensee is expected to collect blood samples for the workers who may have been exposed as a result of the event.

Region IV received notification of this occurrence from DEQ July 10, 2003. Region IV has informed OEDO, NMSS, OSTP and the Region's SLO and PAO. A Commissioner's assistants briefing was also conducted at 6:00 p.m. (CDT), on July 10.

This information has been discussed with the State and is current as of 7:30 a.m. (CDT) on July 11, 2003.

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