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Final Report of accident on 5  
THIS IS REPORT 5 OF 8. 5 A

Mound Laboratory, Miamisburg, Ohio

October 22, 1965

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Disaster Incident at Wright-Patterson Air Force Base

D. L. Scott

At approximately 1:00 p.m. on Tuesday, October 12, 1965, I was notified by Mr. L. B. Gnagey that there had been an aircraft accident involving weapon components at WPAFB. He advised me that Dr. G. R. Grove, as acting Plant Manager, was forming an assistance team to proceed to WPAFB as soon as possible. A brief meeting with Dr. Grove revealed that ALO had informed DAO that a C-124 cargo type aircraft had burned with about 87 Tritium Boosting Reservoirs and 100 Neutron Generators on board. Certain of the Generators contained explosive timers; designed by Sandia and produced by Mound Laboratory.

Accordingly, a team consisting of Messrs T. Gore, DAO; J. Gerner; P. Adams; K. Chaney; and R. Schaefer left Mound at about 1:45 p.m. with the Health Physics "hot spot" kit consisting of disposable plastic protective garments and a portable T-290 "sniffer". We reported to Colonel Adams at the Base Command Post where we received a briefing on the situation and an introduction to Captain Thompson who was in charge of the Base Explosives Ordnance Disposal Team (E.O.D.). We then proceeded to the accident scene where the last of three truck loads of charred AN containers were being removed to the SAC bunker storage area. Discussions with personnel at the scene revealed that they were unable to detect any contamination with their T-290 "sniffer". Similar results were obtained with the Mound T-290 except when placed within about 6 inches of a burst MC-1188 (LRL type) Reservoir which had been found in its AN can which also had a large rupture in it. It was evident that a T-289 "sniffer" would be required to detect the presence of the lower but still potentially hazardous level that we were convinced must be present. We were informed that all base personnel who were involved at the scene would submit urine samples to the Base Health Physics group.

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MOUND DECLASSIFICATION BY	
1. REVIEW DATE: 2/12/00	1. CLASSIFICATION EXTENDED
AUTHORITY: CIAC BRAC DAAD	2. CLASSIFICATION CHANGED TO: <i>SECRET</i>
NAME: <i>John A. ...</i>	3. CONTAINS NO DOE CLASSIFIED INFO
2. REVIEW DATE: 2/12/2000	4. COORDINATE WITH: <i>...</i>
AUTHORITY: <i>...</i>	5. CLASSIFICATION CANCELLED
NAME: <i>...</i>	6. CLASSIFIED INFO BRACKETED
	7. OTHER (REF. TO):

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RESTRICTED DATA

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The fire was reported to have started at about 1:00 a.m. Monday, October 11, 1965, by a spark from a refueling truck which ignited about 200 gallons of gasoline which had spilled to the ground beneath the aft part of the aircraft fuselage from a broken refueling line coupling. The aircraft Magnesium-Aluminum alloy skin eventually burned, the entire fuselage was gutted by the fire, and the tail section collapsed. Five thousand (5000) gallons of fuel in the wing tanks did not ignite due to what must have been a very effective fire fighting effort. Statements were made by several base guards and Colonel Redeker, who is in charge of Civil Engineering which includes the fire fighting crews, that they were unaware of the nature of the material on the aircraft until they were in the aircraft and heard several small explosions and saw a bomb (later identified as an inert training weapon). The fire burned for 2 or 3 hours.

A large portion of the water and foam used in and on the aircraft had drained off through a sewer opening located beneath the aircraft. J. Garner has reported that Miami River samplings have shown no significant changes in counting results as of Tuesday, October 19, 1965.

On Wednesday, October 13, 1965, Garner, Core, and Schaefer took the Mound T-289 "sniffer" truck and proceeded to the Base Command Post. A planning meeting was conducted by Captain J. Pizzuto from the Inspector General's Office at Kirtland AFB, Albuquerque. K. Baker, P. Walke, and J. Womeck from Du Pont; R. Caldwell, SRO-AEC; and D. Hart, ALO-AEC were also present. This group, plus the WPAFB E.O.D. team, then went to the SAC bunker storage area. The planning called for the bunkers to be approached in a very cautious manner since the rate of outgassing from the debris or buildup in the bunkers was unknown. J. Garner and R. Schaefer in the "sniffer" truck were able to determine that there was only insignificant airborne contamination at the face of the bunkers and about 10 micro-curies/M<sup>3</sup> in the bunker as determined by a "sniffer" hose placed under the bunker doors. E.O.D.

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team members then proceeded, while garbed in Mound-provided plastic suits and Air Force Scott Air Packs, to remove individual Reservoir AN containers from the bunkers. These were tested at the vent hole and almost all exhibited a small reading above background. Six containers showed readings from 500 to 1500 micro-curies/M<sup>3</sup> and were isolated for special handling. The one burst MC-1188 and another found loose with a damaged Squib Valve were repackaged in a JP container supplied by Mound Laboratory.

On Thursday, October 14, 1965, J. Garner, J. Kahle, T. Gore, and K. Schaefer again proceeded to the SAC area. Mr. L. Hobbs, Sandia, Albuquerque, 1410, joined the group to appraise the condition of the Neutron Generators; and a truck from ALO arrived via Burlington, Iowa with a load of empty JP containers. D. Hart, ALO, received a communication about this time which indicated that the true load of weapon components was as follows:

3	MC-1188 Reservoirs
16	1C-20 Reservoirs
1	1A-22 Reservoirs
67	1A-33 Reservoirs
<u>8</u>	Units returning from stockpile
95	Total Reservoirs
22	MC-1871 Neutron Generators
4	MC-1649 Neutron Generators
<u>136</u>	MC-1674 Neutron Generators
162	Total Neutron Generators

The task of opening AN cans, sniffing, and repacking was begun. The six high level items mentioned previously were allowed to outgas further and were not repackaged till the following day when the levels in the cans were monitored at about 350 micro-curies/M<sup>3</sup>. This would tend to indicate that the earlier higher levels detected were probably due to contamination from the burst reservoir rather than seepage through the reservoir walls due to the sustained

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high temperature to which they were exposed.

All the AN containers were badly charred with lids bulged out and bent. The condition of the contents varied for both the Reservoirs and Neutron Generators. In some cases the component was a charred mass with no remaining packing material. In other cases the packing material was only slightly charred with no visible damage to the component. Only one explosive timer was observed to have exploded full scale and resulted in only bulging of the MC-1674 Generator welded stainless steel case. The MC-1674 Generator uses the MC-1675 Timer. At least some of the MC-1675 units involved in this incident were from Lot 4.

J. Garner and J. Kahle spent part of Friday, October 22, 1965, at the bunker area and participated in the final repacking. Dr. T. B. Reinehammer and D. Spangler who had been on travel status arrived and made arrangements for 8 reservoir units to be sent to Mound for surveillance testing. These are the 6 high level units, one burst unit, and one unit with a damaged Squib Valve.

### Conclusions

I believe the following conclusions can be arrived at as a result of this incident.

1. The aircraft and its load of weapon components is a total loss.
2. The T-290 "sniffer" is not reliable or sensitive enough to detect potentially harmful levels of contaminated air. Portability appears to be its only virtue.
3. Conventional AN cans are not structurally sound or durable enough to handle high pressure Reservoirs in shipment.
4. There is a need for closer custodial control of weapon components during military shipment and transfer.

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5. AEC and neighboring military installations should maintain a liaison in the technical and Health Physics areas so that they are aware of each other's capabilities.
6. None of the MRC personnel picked up additional urine counts as a result of the exposure. T. Gore, DAO-AEC, has not submitted a sample to date.

ORIGINAL SIGNED BY  
RODNEY D. SCHAEFER

R. D. Schaefer

RDS:blw

Distribution

Copy 1A - D. L. Scott  
2A - W. B. Creamer, DAO/AEC  
3A - J. E. Bradley  
4A - L. B. Gnagey  
5A - G. R. Grove  
6A - L. V. Jones  
7A - E. A. Rembold  
8A - R. D. Schaefer

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