

November 9, 1998

U.S. NUCLEAR REGULATORY COMMISSION
DOCUMENT CONTROL DESK
WASHINGTON, DC 20555

SUBJECT: Fire at Safety Light Corporation, 4150-A Old Berwick Rd., (South Centre Township, Columbia County) Bloomsburg, PA 17815; on Monday, October 19, 1998. The fire was reported to USNRC within four (4) hours.

EVENT DESCRIPTION:

At approximately 11:15 A.M., Monday, October 19, 1998; a fire was discovered in the attic area of the structure known as "The Old House" on the Safety Light Corporation property, inside the outer barrier fence and also within the specific "Tritium Compound" fence.

The person who first noticed the fire immediately called for fire companies to respond, then notified company management. The Radiological Contingency Response Organization was activated by the Plant Manager (Emergency Director) and consisted of the Radiation Safety Officer, Production Manager, Radiation Safety Technician and the Office Administrator.

Fire equipment arrived within one half-hour from the Espy fire department. On site also were local police, Columbia County Emergency Management personnel, a PA State Police Fire Marshal, and a PA Dept. of Environmental Protection representative.

Information on the radiological significance of the burning structure was communicated to these response personnel as follows: The Old House contains contaminated (alpha and alpha beta gamma) equipment and other various objects from past operations and the tritium operations, on the first floor. The second floor contains little former equipment and some records. The attic contains records and some old pictures. Upper floors are lightly contaminated. All efforts should be directed to extinguishing the fire while still confined to the upper floors.

The attic area became fully engulfed in flames, and smoke and updraft rose as high as the 18.5 meter exhaust stack on the Tritium Processing Building nearby. Wind currents were toward the East and Southeast, toward the Susquehanna River and away from emergency personnel and fire equipment.

In less than one hour, the fire was completely extinguished. Firefighters had entered the upper floors of the building and were on the ground around the building, but the stationary water gun on one of the firetrucks had the most devastating effect on the fire.

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RESULT: - Attic obliterated including roof and rafters and most of the attic floor. Second floor area, ceiling joists and some side members burned. First floor not burned. To best of our knowledge, no contaminated equipment on first floor damaged by fire. No offsite or onsite evacuations were conducted, but students at Central Columbia School, one half-mile away, were held inside the building with air handling equipment off, until preliminary determinations of any offsite doses were made by Safety Light Corporation.

DOSE CALCULATIONS:

Notwithstanding the fact that none of the contaminated equipment was burned, a maximum release of 10 Curies of tritium was used in an elevated dose calculation to persons downwind of the fire.

The wind speed of 4.71 MPH (2.2 m/sec.) and direction, East, were obtained from actual data recorded from SLC weather station readings over the duration of the fire. A person standing 130 meters downwind of the fire would have received 0.056 MREM dose of tritium from the event.

TESTING:

WIPES: Sixteen (16) firefighters, police and a Fire Marshal were wipe tested for alpha and alpha-beta-gamma contamination after the fire. All results were background except the Fire Marshal, whose boots and coveralls showed low-level alpha-beta-gamma contamination. The boots were cleaned to background. The suit was released.

Fire trucks and associated equipment were wipe tested for alpha and alpha-beta-gamma contamination. All results were background.

Offsite buildings, road and other surfaces were wipe tested for alpha and alpha-beta-gamma contamination. All results were background.

A total of one hundred twenty-three wipes were taken. All were background, but four from coveralls and foot cover of persons entering the Old House.

LIQUIDS TESTED FOR TRITIUM BY SCINTILLATION COUNTING:

Fourteen (14) Safety Light Corp. employees urine was counted with no change from their usual bi-monthly results.

Twelve (12) firefighters and a policeman's urine samples were counted with all results equal to or less than minimum detectable activity.

Three (3) teachers and a Superintendent from Central Columbia School submitted urine samples. All were equal to or less than minimum detectable activity.

The most likely neighbor to the east of the fire submitted a urine sample. The result was equal to or less than minimum detectable activity.

Three standing water samples east of the fire site were counted. All were equal to or less than minimum detectable activity.

One sample of fire hose runoff from the Old House was counted. The activity was 101,000 picoCuries per liter.

VEGETATION SAMPLING:

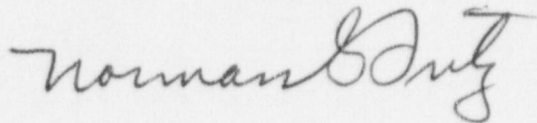
Soil and vegetation samples were taken near the Old House. Results from an offsite laboratory are pending.

SUMMARY:

The fire was of short duration and the stored contaminated material was affected little or not at all. Material is still contained in the Old House. No doses to individuals were detected. Four (4) onsite results were positive and were mitigated. The water runoff from the fire hose was less than USNRC effluent guidelines.

All individuals and systems worked effectively. No negative public concern arose. No cause for the fire has been pinpointed. Arson was not suspected according to a PA State Police Fire Marshal.

Norman G. Fritz

A handwritten signature in cursive script, appearing to read "Norman G. Fritz".

Radiation Safety Officer

cc: USNRC REGION I