

Annex 8 - Monitoring - Dose Projection

- A. Both permanently mounted and field monitoring points have been established throughout the 10-mile emergency planning zone (EPZ) to be used in the event of an incident at the Beaver Valley Power Station (BVPS). These stations were established by the West Virginia Bureau for Public Health (BPH) with assistance from the WV Division of Homeland Security and Emergency Management (DHSEM), BVPS and the Hancock County Office of Emergency Management.
- B. The permanently mounted monitors are Landauer X9 Thermoluminescent Dosimeters (TLDs) which are environmental/low level dosimeters. The TLDs have been located permanently at twelve monitoring stations in Hancock County. The TLDs are used to establish background radiation and are read once every month under normal conditions. In the event of an incident at the facility, the TLDs will be read after the incident is over to determine any readings above background level.
- C. The West Virginia BPH is responsible for monitoring; however, if additional monitors are needed, at the time of an incident, the State can provide monitor teams and survey equipment. All monitoring resources, both equipment and manpower, are outlined in Annex 15.
- D. In the event of a Site Area Emergency or General Emergency, federal monitoring and dose projection assistance will be provided. At the federal level, Federal agencies are activated through the Federal Radiological Emergency Response Framework (FRERF). These federal agencies will provide information and assistance to the West Virginia Bureau for Public Health, and are activated by FEMA Region III upon notification from PEMA or WVDHSEM of a Site Area Emergency or a General Emergency.
- E. The West Virginia BPH has developed procedures for monitoring and performing dose projections for accidents at the BVPS. (Annex 15)
- F. The facility operator is the most appropriate source for obtaining monitoring data.
- G. Radioactive release data will be supplied by the facility operator from onsite effluent monitoring equipment or, in the case of unmonitored pathways (e.g., containment failure), from projected source terms. The facility will also do radioactivity monitoring onsite.
- H. Atmospheric turbulence data will be supplied by the facility operator. Onsite meteorological instruments provide data for making this determination. As part of the facility's emergency preparedness planning, the facility operator shall supply the West Virginia BPH suitable isopleth overlays and to-scale maps or, if another method of determining atmospheric dispersion is in use at the facility,

the facility operator will make available information on that method, and any data necessary to verify facility projections in the event of an emergency.

- I. Wind speed and direction will be provided by the facility operator, however, in the absence of facility data, information is available from other weather sources, such as the National Weather Service or airports.
- J. The facility will also provide data on the source height. If this information is not given, it must be assumed to be zero (0).
- K. Given the input data, the methodology described in the procedures will lead to an estimation of the instantaneous air concentration at a specific point. From this data, the dose commitment can be calculated. These procedures are outlined in Annex 15.

Attachment 1 – TLD Locations

Attachment 2 - Map of TLD Locations

Attachment 3 - Field Monitoring Point Locations

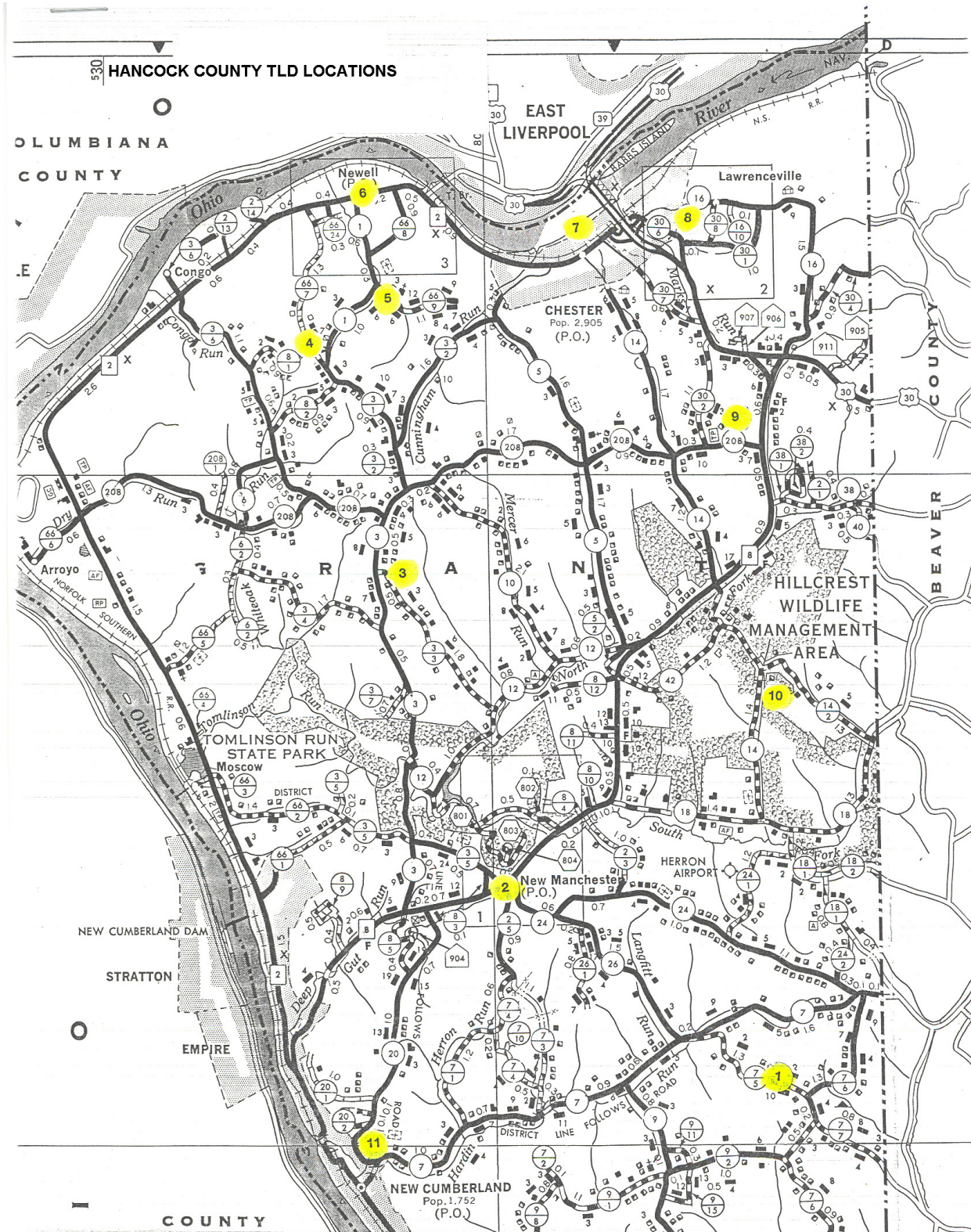
Attachment 4 - Map of Field Monitoring Point Locations

ATTACHMENT 1 - TLD Locations

TLD #	Pole #	Address
1	603	Tope Rd. (7/5) between Hardins Run & Ross Rd. (7/6) - 40°30'29.4"N, 80°32'16.8"W
2	607	Rt. 8 & Florence Rd. (Rt. 26) at New Manchester VFD - 40°30'57.6"N, 80°34'46.8"W
3	602	Murray Rd. (3/3) off Rt. 3 & Washington Rd. - 40°34'16.8"N, 80°35'59.4"W
4	611	Snowhill Rd. (66/7) & Sixth St. (Rt.1) in Newell – 40°35'45.6N, 80°36'30.6W
5	606	Sixth St. (Rt. 1) off Rt. 2 – 40°36'40.79"N, 80°35'56.41"W <i>Note: heading North on Rt. 1 take the second right turn after passing Rt. 66/9. Uphill on Cordray St. (1/4) and turn left on Harker Ave (1/5). Pole is one block on right.</i>
6	614	Washington St. (Rt.2) at Newell VFD – 40°37'8.4"N, 80°36'15.6"W
7	610	Chester City Park at Lovella Ave. & Leander Dr. – 40°36'50.4"N, 80°33'48.61"W
8	605	Rt. 16 at Lawrenceville VFD – 40°37'2.4"N, 80°32'43.8"W
9	604	Rt. 8 & Allison Rd. (Rt. 208) – 40°35'16.2"N, 80°32'15.6"W <i>Note: Turn in driveway of the Hilltop Drive In Theater and proceed toward crest of hill. Pole is at the ticket booth.</i>
10	613	Middle Rd (Rt 14) between Patterson Rd (14/2) & Gas Valley Rd – 40°33'9.6"N, 80°32'21" <i>Note: As you reach top of hill (Maples Towing) go straight through intersection. Proceed downhill and turn right at next intersection. Pole is about 0.4 mile on left.</i>
11	N/A	Outside the Hancock Co. Division of Homeland Security and Emergency Management
12	N/A	Inside the Hancock Co. Division of Homeland Security and Emergency Management

NOTE: Except for TLD Location Numbers 11 and 12, the TLD's are located on Emergency Warning Siren Poles. The Pole No's. denote these locations.

ATTACHMENT 2 - HANCOCK COUNTY TLD LOCATIONS



ATTACHMENT 3 - FIELD MONITORING POINTS

POINT #	LOCATION	COORDINATES	Miles from BVPS
1	Intersection of Rt. 2 and Rt. 7 (Hardin Run Rd.) at Dollar General	40.494682 / -80.604639	12.7
2	Intersection of Rt. 7 (Hardin Run Rd.) and Rt. 9 (Wylie Ridge Rd.)	40.507565 / -80.560866	10.45
3	Intersection of Rt. 7 (Hardin Run Rd.) and Rt. 7/6 (Ross Rd.)	40.518525 / -80.522199	8.7
4	Intersection of Gas Valley Rd. (Rt. 1/8) and Scott Rd. (Rt. 18/1)	40.539111 / -80.533724	7.88
5	Intersection of Gas Valley Rd. (Rt. 1/8) and Patterson Rd. (Rt. 14/2)	40.550526 / -80.520138	6.83
6	Intersection of Orchard Rd. (Rt. 1/4) and Smith Rd. (Rt. 42) at Maples Towing.	40.564880 / -80.544506	7.2
7	Intersection of Orchard Rd. (Rt. 1/4) and Rt. 8 (Veterans Blvd)	40.569672 / -80.545241	7.05
8	Intersection of Rt. 8 (Veterans Blvd) and Stewart Run Rd. (Rt. 38)	40.579882 / -80.535068	6.27
9	Intersection of Rt. 8 (Veterans Blvd), Rt. 30 (Lincoln Hwy), and Pyramus Rd.	40.597967 / -80.533978	5.66
10	On Pyramus Rd. (Rt. 16) next to National Church Solutions, just off Rt. 30	40.600161 / -80.530226	5.47
11	Intersection of Pyramus Rd (Rt. 16) and Johnsonville Road, look for white building.	40.616835 / -80.537079	5.59
12	Lawrenceville Fire Dept. parking lot on Pyramas Rd. in Lawrenceville.	40.617205 / -80.545609	6.02
13	Orchards at Foxcrest Nursing Home parking lot on Fox Ln off Pyramus Rd. in Lawrenceville.	40.615185 / -80.549537	6.27
14	Intersection of Rt. 2 (Ohio River Blvd) and Rt. 30 (Lincoln Hwy) at the Tea Pot in Chester.	40.616040 / -80.557088	6.63
15	Chester Water Plant parking lot on Collins Memorial Dr in Chester.	40.622860 / -80.551159	6.28
16	Intersection of 8th Street and Stydian Way in Chester.	40.618167 / -80.555753	6.56
17	Chester City Park on Louella Ave off 5th St in Chester.	40.613940 / -80.564970	7.18
18	Ohio River Overlook on 1st St in Chester.	40.611592 / -80.572071	7.43

ATTACHMENT 4 - HANCOCK COUNTY FIELD MONITORING POINTS

