

Customer Name: _____

Date: _____

Tester Name: _____

Test Equipment: _____

Equipment Serial #: _____

Primary Profile Test Form

Form Instructions

- 1) Refer to ARSD 20:10:39:39 through ARSD 20:10:39:41 for more specific information on the primary profile test.
- 2) For each pole on the primary system, record if the pole has a ground electrode. If a ground electrode exists, proceed with step 3.
- 3) Record the concurrent measurement of the ground electrode current (I_{PG}) and resistance (R_{PG}). Alternatively, the voltage between a remote reference electrode and the primary ground point being tested may be measured to determine the primary neutral voltage (V_{PNeut}). If the alternative method is used, place an "N/A" in the I_{PG} and R_{PG} data boxes.
- 4) If the ground electrode current (I_{PG}) and resistance (R_{PG}) are measured, then calculate the primary neutral voltage (V_{PNeut}) using Ohm's Law ($V = I \times R$).
- 5) The test shall be conducted starting at one end of the distribution system and working towards the other along the main primary distribution system.
- 6) All primary system ground points within 3/4 of a mile on either side of all primary service points serving the dairy, or to the end of the line if less than 3/4 of a mile, are required to be tested. If the dairy is served by a dedicated tap of less than 1/2 mile in length from a distribution line, the neutral-to-earth voltage is measured at each primary ground along the tap and along the distribution line to a distance of 3/4 of a mile in each direction from the point of the tap. If the dairy is served by a dedicated tap that extends more than 1/2 mile from the distribution line, the neutral-to-earth voltage is measured at each primary grounding electrode along the tap and along the distribution line to a distance of 1/2 mile in each direction from the point of the tap.

Pole #	Ground	Description	I _{PG} (mA)	R _{PG} (Ω)	V _{PNeut}	Notes
1	Y / N					
2	Y / N					
3	Y / N					
4	Y / N					
5	Y / N					
6	Y / N					
7	Y / N					
8	Y / N					
9	Y / N					
10	Y / N					
11	Y / N					
12	Y / N					
13	Y / N					
14	Y / N					
15	Y / N					
16	Y / N					
17	Y / N					
18	Y / N					
19	Y / N					
20	Y / N					
21	Y / N					
22	Y / N					
23	Y / N					
24	Y / N					
25	Y / N					

Pole #	Ground	Description	I_{PG} (mA)	R_{PG} (Ω)	V_{PNeut}	Notes
26	Y / N					
27	Y / N					
28	Y / N					
29	Y / N					
30	Y / N					
31	Y / N					
32	Y / N					
33	Y / N					
34	Y / N					
35	Y / N					
36	Y / N					
37	Y / N					
38	Y / N					
39	Y / N					
40	Y / N					
41	Y / N					
42	Y / N					
43	Y / N					
44	Y / N					
45	Y / N					
46	Y / N					
47	Y / N					
48	Y / N					
49	Y / N					
50	Y / N					
51	Y / N					
52	Y / N					
53	Y / N					
54	Y / N					
55	Y / N					
56	Y / N					
57	Y / N					