



Bureau of Planning and Research

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Electrical Safety

Electrical Hazards / Live Voltage Alarms

Who is likely to be exposed to electrical hazards?

Anyone may be exposed to electrical hazards while going about daily activities. However, certain occupations may pose greater risks due to the nature of the work or the circumstances under which it is performed. For example, emergency responders who are called to accident scenes may encounter downed wires. Similarly, highway construction workers frequently work in the vicinity of power lines. It is wise for all employees whose jobs place them at risk to have electrical hazard awareness training so that they can recognize and respond appropriately to potentially dangerous situations. A Live Line Alarm can be a valuable precautionary back-up safety device.

Who should I contact for more information about electrical hazards?

You can contact your local power company. Some specific contact information is provided below. If your power company is not listed, call them and ask to speak with someone in their Safety Division.

Tom Grube Manager of Safety Operations **PPL** Corporation 1639 Church Street Allentown, PA 18104 484-634-4037 tegrube@pplweb.com

Allegheny Power

Mark T. Ferguson Allegheny Power Safety & Training Specialist 200 Lincoln Highway West Jeannette, PA 15644 724-523-7293 mfergus@alleghenypower.com

PECO Energy

Gerald Flynn Safety Specialist PECO Energy 2301 Market Street Philadelphia, PA 19101 215-841-5198

Does the Live Line Alarm really work?

District 3 has been using Live Line Alarms for some time. They report that it works quite well. In fact, it has warned of live wires near workers, potentially averting injury.

Note: The Live Line Alarm should be used only as an auxiliary means of high voltage detection. It is not a substitute for other safety devices or safe practices. It cannot insure safety in hazardous conditions, and must not be used as a primary voltage detector.

Do I need training to use the Live Line Alarm?

It is wise for all employees whose jobs place them at risk to have electrical hazard awareness training so that they can recognize and respond appropriately to potentially dangerous situations. A Live Line Alarm can be a valuable precautionary back-up safety device. The Live Line Alarm comes with instructions and precautions concerning its proper use. If you have questions, ask your supervisor or District Safety Coordinator. You should comply with Department safety policies and procedures at all times.



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How do I know the Live Line Alarm is working properly?

The Live Line Alarm has a test button which allows you to verify that the alarm is working. When activated by a nearby electrical field, the Live Line Alarm can sound for up to 50 hours continuously. The battery will typically last for approximately two years before needing to be replaced.

Does the Live Line Alarm work in any temperature or weather conditions?

The manufacturer reports that the Live Line Alarm is effective between 23° - 113° F. The alarm is also dust and water proof. These conditions cover most of the range that PennDOT employees are likely to encounter.

Can the Live Alarm be heard under all operational conditions, for example, while operating a chain saw?

The Live Line Alarm sounds at 65dB (minimum) at a distance of 3.3 feet. This is loud enough to be

heard under most operational conditions that PennDOT employees are likely to encounter.

How should I wear the Live Line Alarm?

The Live Line Alarm should be worn on the upper part of your dominant arm with the unit facing outward, over any clothing you are wearing. For example, if you are right-handed wear the alarm on your right arm. This arm is likely to be closest to electrical hazards. At 1.4 oz. and with an adjustable strap, the Live Line Alarm can be worn comfortably for long periods.

How can I obtain a Live Line Alarm?

Your county's purchasing agent can buy Live Line Alarms (specifically, High Voltage Live Line Alarms) and similar products from their distributors. Currently, the manufacturer of the Live Line Alarm is in the process of selecting a new US distributor. The company can be contacted at: infor@hasegawa-elec.co.jp Other similar products are available such as the V-Watch Personal Voltage Detector (HD Electric Company:

www.hdelectriccompany.com/vwatch.htm), and the Osprey Live Alarm (Acksen: www.acksen.com/livealarm.asp).

How much does the Live Line Alarm cost?

The Live Line Alarm costs \$195.

Are there other products besides the Live Line Alarm that work just as well?

There are other products on the market such as hot sticks and meters that electricians and power company workers use on their jobs. The Live Line Alarm is designed solely as a warning device for people whose jobs do not involve working with electricity but may nevertheless expose them to electrical hazards. The Live Line Alarm should be used only as an auxiliary means of high voltage detection. It is not a substitute for other safety devices or safe practices. It cannot insure safety in hazardous conditions, and must not be used as a primary voltage detector.

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Are Live Line Alarms used by other transportation departments?

Live Line Alarms are used by workers in jobs that expose them to potential electrical hazards. We are not aware of their specific use by other transportation departments.

