The batteries are taken off the limpet at the end of life and ship to the battery recycling place. The battery replaces remove all the non-metal part and ship the mixed metal to metal separation factory [2]. PCB of the limpet can be recycled in three ways at the end of life, thermal recovering, chemical recovering, and physical recovering [1].

For the thermal recovering process, you must heat the PCB to a high temperature to recover the metals present on the board. FR-4 is a composite material composed of woven fiberglass cloth with an epoxy resin binder that is flame resistant (self-extinguishing). Thermal recovery will incinerate the FR-4 but retain the copper. This method will create harmful gases in the air like lead and dioxin.

For the chemical recovering process, a bed of acid to recover the metal from the PCB. The board gets put into the acid, which destroys the FR-4 again, and it also creates a large quantity of wastewater that needs treatment before disposing it.

The physical recovering process involves the shredding, smashing, breaking, and separating of the metal from non-metal components. While this method does have the least environmental impact.

It is a hazard for everyone working around the PCB because you are sending dust, metal, and glass particles into the air, which can lead to respiratory issues if exposed for prolonged periods. This method does retain all the metal components.

[1] Candor Industries. 2021. PCB Recycling: How to Recycle Circuit Boards - Candor. [online] Available at: <https://www.candorind.com/pcb-recycling/#thermal-recovering> [Accessed 29 May 2021].

[2] Batteryuniversity.com. 2021. How to Recycle Batteries - Battery University. [online] Available at: <https://batteryuniversity.com/learn/article/recycling\_batteries> [Accessed 29 May 2021].