Data analysis

Data collected by the LTFE will be analyzed by the NPPTL TEB. The two data sources are the initial report of units accepted and refused and the LTBE BMS results.

Initial report data

Initial report data will be reported to the mine operator, the miner if the device was belt worn, and MSHA or other appropriate regulatory authority. NIOSH will accumulate initial report data by mine and annually review this data with MSHA.

BMS Testing Data

Critical parameter or Major Parameter failures will be reported to the manufacturer, the mine operators, the miners and MSHA. These failures are defined as follows.

The Critical LTFE Parameters used for evaluation are:

> $O2 \geq 15\%$ [Average O2 values less than 15% over a 1 minute period are considered a failure on a BMS apparatus conducted per the STP]
>
> $CO2 \leq 4\%$ [Average CO2 values over 4% for a 1 minute period are considered a failure on a BMS apparatus conducted per the STP]
>
> Capacity ≥ NIOSH approval rated capacity on a BMS apparatus conducted per the STP Breathing Circuit Integrity = No compromise of the breathing circuit such as: no rips, tears or.; no chemical migration allowing user exposure to chemicals, no accumulation of foreign particles exceeding 5mg weight total present in the mouthpiece and breathing tube.

Major Parameter Classification

A non-critical parameter observed during the course of the investigation that results in reduced protection for an individual using the SCSR.

Minor Parameter Classification

A parameter that is not likely to reduce the usability of the SCSR.

The LTFE BMS testing will also note SCSR units that demonstrate significant performance deviations from new units of the same approval or from the historical database. These observations will be noted in the annual report and may be discussed with the manufacturer. A Certified Product Investigation Procedure (CPIP) will be opened on all critical and major parameter failures. A CPIP may be opened on minor parameters or performance deviations at the discretion of NIOSH.

All data each approval will be compiled annually and analyzed for projected reliability. Data will be accumulated over a five year running period and the reliability of that approval type projected on the basis of the 5 year sample.

On any year that the samples collected on the basis of the randomized sampling plan vary from 100 results will be reported on the number of sample available.