

Title (en)

METHOD FOR MONITORING AT LEAST TWO PEOPLE CARRYING AN EXTERNAL RESPIRATORY AIR SUPPLY

Title (de)

VERFAHREN ZUR ÜBERWACHUNG VON ZUMINDEST ZWEI PERSONEN MIT EXTERNER ATEMLUFTVERSORGUNG

Title (fr)

PROCEDE POUR SURVEILLER AU MOINS DEUX PERSONNES ASSISTEES PAR UNE SOURCE EXTERNE D'AIR RESPIRATOIRE

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Application

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Abstract (en)

[origin: WO2004091725A1] The invention relates to a method for monitoring at least two people carrying out a time-limited activity using an external respiratory air supply, especially people carrying breathing equipment such as firemen, divers or the like. According to said method, filling levels of the breathing equipment supplying people with respiratory air, especially compressed-air bottles, are determined and transmitted to a central monitoring station before said people go to their area of activity, and once the people arrive at the area of activity, they transmit a signal to the central station, indicating their arrival, said signal being used to calculate the period of time between the time of arrival and the moment the person begins to inhale the respiratory air from the breathing equipment. The aim of the invention is to provide a method for monitoring at least two people carrying out a time-limited activity using an external respiratory air supply in such a way that, with relatively simple and compatible hardware technology especially based on existing hardware, a high level of operating safety is ensured for people carrying out an activity in dangerous conditions. To this end, the time spent in the area of activity is calculated according to the formula: $t_{\text{activity}} = V_{\text{resp. air min}} \cdot t_{\text{arrival}} \cdot (\alpha - 1)$, wherein t_{activity} represents the time spent in the area of activity, t_{arrival} represents the time taken to arrive at the area of activity, α represents a safety factor, $V_{\text{resp. air min}}$ represents the respiratory air supply in the breathing equipment with the smallest supply, and dQ represents the average consumption of respiratory air per unit of time. The central station transmits a signal to the people using the breathing equipment when they reach the time at which they can safely withdraw from the area of activity.

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