Table no. 4 - Values of heart rate before and during movement in enclosed spaces.

No. Item	Subject	Before enclosed spaces - bpm	During movement - bpm	Variation in pulse-bpm
1	I	112	156	44
2	II	93	138	45
3	III	102	140	38

CONCLUSIONS

Heart rate (pulse) is commonly used in remote monitoring physiological parameter because it allows an assessment of the overall condition of rescuer, heart rhythm disturbances recorded promptly and can be easily differentiated from abnormal / normal. Parameter provides an indication of cardiovascular function. Sampling pulse is automatic frequently using devices based on photoelectric plethysmography method for measuring the level of peripheral arteries.

Pulse measuring has made with telemetry system HRT-SYS, which is the only device which allows continuous monitoring of this parameter. The equipment uses specialized software that allows continuous recording of rescuers pulse via wireless technology to a distance of about 100 meters from the unit.

The tests were conducted in the polygon where the training was set a route made up of several activities (on ergometers, treadmill, ladder confined spaces.) for each of the job knowing work consumption.

Pulse determination was performed for a group of three rescuers. The measurements were performed at rest before the start of and during activities.

After analysis of these measurements it was observed that the pulse was increased for all activities, the highest values being recorded for the the activity which has the highest value amount of work, respectively on ergometers.

Telemonitoring in real time allows:

- Determining the degree of difficulty of training routes based on changes in heart rate;
- Alarm thresholds for achieving the minimum and maximum measured vital parameters;
- Real-time identification of rescuers whose vital parameters are exceeded during training exercises;
- Possibility for the instructor which supervises the exercises to stop this activity for those above the maximum or minimum, avoiding possible undesirable events;
- Data storage for each person and follow his evolution during the next workout.

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