December 22, 1987

Director, Division of Safety Research NIOSH 944 Chestnut Ridge Road Morgantown, WV 26505

Dear Sir:

While 42 CFR Part 84 incorporates much that is commendable, Rexnord Breathing Systems takes vigorous exception to the recommendation in section 84.242(b) regarding oxygen self-contained breathing apparatus that reads, "Use of such apparatus near open flames or high heat is not recommended."

Rexnord opposes inclusion of this statement for the following reasons:

- 1) It is unfairly restrictive and is not supported by any scientific data. In fact the available data shows that there is no significant increase in risk to the firefighter wearing oxygen closed-circuit positive pressure self-contained breathing apparatus than in wearing compressed air open-circuit positive pressure SCBA. A recently completed multi-year study by Lawrence Livermore National Laboratories, funded by the State of California and Federal OSHA and primarily done by Jim Johnson of LLNL, proves this contention. LLNL's recommendation is that positive pressure CCBA be allowed for use in structural firefighting.
- 2) There is no historical basis for inclusion of such a recommendation. In 75 years of recordkeeping by the Bureau of Mines, the NFPA, NIOSH, MSHA, OSHA, the U.S. Navy and the U.S. Coast Guard, there have been no reported incidents of problems with oxygen breathing apparatus in firefighting activities. In fact the U.S. Navy has approximately 50,000 such units still in service for firefighting and is embarking on a development program to replace them with 50,000 new units that must maintain a positive pressure in the mask. The Navy is convinced of the safety of such equipment.
- 3) OSHA is convinced of the safety of oxygen positive pressure CCBA as well; they have publicly stated in writing their position that such equipment has been shown to be safe for use in firefighting and meets their criteria for compliance with the industrial fire brigade standard.

- 4) The recently adopted NFPA 1500 consensus standard on protective equipment usage mandates that closed-circuit SCBA be in a positive pressure mode if used for structural firefighting. Literally thousands of representatives from the fire service voted to accept this standard; they obviously do not feel that there is a problem with usage of positive pressure CCBA in firefighting. The SCBA subcommittee of the NFPA Technical Committee on Protective Equipment for Fire Fighters is, in fact, currently developing a standard for positive pressure CCBA for firefighting; the subcommittee, composed of fire service representatives and manufacturers (primarily manufacturers of open-circuit breathing apparatus), strongly feels that such equipment can be safe in firefighting activities.
- 5) The general feeling by the fire service and by most manufacturers is that the future of SCBA development lies with closed-circuit SCBA. Open-circuit technology has gone about as far as it can go. Minor improvements can be made, but dramatic reductions in size and weight can only come from closed-circuit technology. Recommending against such equipment for fire-fighting will inhibit new research and development; it is the firefighter and the mine rescue team member who will ultimately lose.
- 6) In Europe positive pressure CCBA is allowed for use in fire-fighting. A new European approval standard for such equipment is currently going through the final adoption process.

In summary, it appears that NIOSH stands alone in their recommendation against the use of oxygen positive pressure CCBA for firefighting. It is possible, we suppose, to design a positive pressure CCBA that might not be safe for use in firefighting. To recommend against usage of all such equipment, without standards to determine whether the equipment is safe or unsafe, is, we feel, foolish. It is possible to design an open-circuit SCBA that is not safe for use in firefighting, but NIOSH does not recommend that all such equipment not be used in those activities. Good, safe, worthwhile equipment will be taken from firefighters and mine rescue team members if the proposed recommendation stands. Therefore we implore the Director to review the available data and delete the recommendation against usage of such equipment near open flames or high heat in section 84.242(b).

Sincerely,

Louis M. Riccio

Director, Research and Development

REXNORD BREATHING SYSTEMS

Louis M. Riccio

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