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From: C.Eason@staubli.com
Sent: Friday, October 16, 2009 5:21 PM
To: NIOSH Docket Office (CDC)
Subject: 083-B - Supplied Air Respirators (SAR)
Attachments: Docket 83B Submittal -WCE-101609.pdf

Hello all,

I have a document to submit for consideration.

Best regards,

Chris Eason

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10/19/2009

16 October, 2009

In discussions with NIOSH it is noted that this body tests, evaluates, and provides certification for "systems" as opposed to components. This would be from the source of the supplied air to the mask or hood used. This, in one sense, would seem correct. However, in my discussion with personnel from NIOSH it appears there are 'gray' areas. By this the following articles are submitted:

When a system is approved it is approved at the respirator manufacturer level. This could be XXX, XXXXX, XX or some other company such as XXXXXXXX. These companies supply systems composed of components made by various manufacturers such as XXXXXXX, XXXXXXX, XXXXXXXXX, etc. When the system is certified by NIOSH it is certified with the components as tested.

However, when replacing components in supplied air systems such as hose and fittings there are many manufacturers in the industry who market breathing air hose and couplings. This also seems to make sense because after some period of time the hose and couplings may require replacement and the identifying details are possibly worn away as in the case of a hose lay line. The lay line is the printing on a hose declaring the manufacturer's information. Also, after some time the original supplier of the system may not be known. Therefore, it appears that supply of aftermarket replacement items such as hose and couplings is allowed.

One could understand SCBA's needing parts replacement require that those parts particular to the mask manufacturer be used. But in the case of hose and couplings, of which there are many manufacturers, it would seem that a suitable and safe component manufactured specifically for breathing air purposes could be used.

Below is an excerpt from OSHA 1910.134 regarding repairs. **1910.134(h)(4)(I)** refers to the NIOSH-approved parts *designed for the respirator*. In the case of hose and couplings, these items are not specifically designed for the respirator but are components manufactured by others for any supplied air breathing air system.

OSHA 1910.134

1910.134(h)(4)

Repairs. The employer shall ensure that respirators that fail an inspection or are otherwise found to be defective are removed from service, and are discarded or repaired or adjusted in accordance with the following procedures:

1910.134(h)(4)(i)

Repairs or adjustments to respirators are to be made only by persons appropriately trained to perform such operations and shall use only the respirator manufacturer's NIOSH-approved parts designed for the respirator;

In addition to NIOSH, and OSHA, there are well respected European EN specifications and Canadian specifications for supplied air breathing connections.

Below is a 1986 letter referring to the status of quick couplings being of a construction so as not to be interchangeable with couplings which could be used for other gases.

Standard Interpretations

04/24/1986 - Couplings used in supplied air respirator systems.

Standard Interpretations - Table of Contents

- Standard Number: 1910.134(i)(8)

April 24, 1986

Mr. G.T. Slay

Martin Marietta Energy Systems, Inc.

Post Office Box P

Oak Ridge, Tennessee 37831

Dear Mr. Slay:

This is in response to your letter of March 12, concerning air line couplings used in a supplied air respirator (SAR) system.

The Occupational Safety and Health Administration (OSHA) respiratory protection standard states that "Air line couplings shall be incompatible with outlets for other gas systems to prevent inadvertent service of air line respirators with nonrespirable gases or oxygen." (Correction 11/24/98) ["The employer shall ensure that breathing air couplings are incompatible with outlets for nonrespirable worksite air or other gas systems. No asphyxiating substance shall be introduced into breathing air lines,"] 29 CFR 1910.134[(i)(8)]. The intent of this standard is to prevent the inhalation of gases other than breathing air by the SAR wearer. If there is likelihood that the breathing air may be contaminated or replaced with toxic gases, a separate air line for transporting breathing air is required.

There would be a violation of the standard if the breathing air and other toxic gases are transported through with the same system.

We hope we have addressed your concern.

Sincerely,
Edward J. Baier
Director
Directorate of Technical Support

Please note that only the supplied air connectors such as hose and fittings are addressed. As mentioned earlier, there are many manufacturers supplying qualified replacement hose and couplings for supplied air connections in industrial applications such as sand blasting, painting, etc.

It is our wish to provide, as are many other manufacturers across the country, supplied air hose and couplings which are designed as safe replacement components or additions to existing systems. These are tested and approved to EN14593 and EN14594.

During the meeting on 17 September, 2009 it was noted on many occasions by many manufacturers of component parts that the system as presently governed provides for only SYSTEMS to be approved. Any component of any other APPROVED system inserted into this system will render the system NON-APPROVED. It appears to component manufacturers that the unfortunate result is an unintended Government initiated monopoly for lack of better terminology.

By virtue of approved systems containing only those components tested with a particular system, the component manufacturers on the approved system both have no incentive to produce a better product tomorrow and are also discentivized from doing so. Those who were not on the approved system cannot have their components considered because there is no incentive for the "RESPIRATOR" manufacturer to do this because of the testing and costs involved.

Therefore it is recommended after consultation with other component manufacturers that this comes to the forefront because there is no better time than now to address this very important issue. With all respect it is also understood that NIOSH wants that safety be first. Please know that with this being said that the European standards previously mentioned allow for substitution of component part from "ACCEPTED" manufacturers. That system allows for businesses to compete and technology to advance. That is not to say that these standards are the best but they point a way to resolution.

Please understand that it is fully realized that this would require a paradigm shift from the present methods of providing industry with safe and reliable equipment. However, in the interest of free enterprise it is felt that this idea whose time is now.

Best regards,

William Christopher Eason

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