

2009-01

Pinholes in MSA Ultra Elite Respirator Masks

September 2009

Event

Site/Facility: Idaho Cleanup Project (ICP)

Pinholes Forming in MSA Ultra Elite Respirator Masks

Reference: ICP Just In Time 2009 0019 Date: 08/24/2009

Respirator users at the Idaho Cleanup Project have noticed small pinholes in the mask of Silicone Ultra Elite Respirator Masks during their pre-use inspections. These pinholes are forming directly next to the corners of the insert that holds the speaking diaphragm and exhalation valve together (see photos below). The photo on the left shows the corners where the holes form and the photo on the right shows one of the holes, which has been stretched and exaggerated in size to be better seen in the photo. It should be noted that this problem has only been seen in the silicone masks and not the Hycar rubber masks. An investigation has been performed regarding the handling of these masks to identify any possible scenarios that could cause these pinholes. None have been identified. The manufacturer, Mine Safety Appliances (MSA), was consulted and noted that silicone masks are more susceptible to punctures, tears, and holes than their Hycar rubber masks. MSA also believes that the holes are the result of handling and not a manufacturing flaw.

Important Point:	<ul style="list-style-type: none"> • During pre-use inspections, users of the MSA Ultra Elite face pieces, particularly those made of silicone must give particular attention to the corners of the insert that holds the speaking diaphragm and exhalation valve together.
Contributor:	<ul style="list-style-type: none"> • Believed to be a handling problem rather than a manufacturing defect.

Below are photographs of the location and pinholes in an Ultra Elite respirator mask.



Location of where pinholes have formed (green circles).



An actual pinhole in silicone mask.