

THE IMPORTANCE OF WEARING PPE EVEN IN A HOT ENVIRONMENT

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The Importance of Wearing PPE Even in a Hot Environment

When working in hot and humid environments, using required personal protective equipment (PPE) can quickly become uncomfortable and bothersome. Often, personnel will remove their PPE, especially in hot climates, while sanding and painting an aircraft due to this discomfort. The removal of PPE is a dangerous practice. Not wearing required PPE can possibly lead to serious occupational hazards.

As temperatures and humidity rise, maintainers still have to perform specific tasks requiring PPE, especially when sanding and painting aircraft. Aircraft painting and paint removal operations can expose personnel to high levels of toxic substances found in paint. Aviation squadrons use corrosion prevention practices like spray painting and sanding almost daily. Coatings such as primers, paints and varnishes contain isocyanate compounds, which are dangerous chemicals that can absorb into the lungs or the skin when sanding or spray painting aircraft. Isocyanates are highly likely to cause breathing issues if people are not adequately protected with a full-face respirator.

Once a person's exposure to isocyanates reaches a certain level, they can become sensitized and allergic to the paint and other coatings being used. This sensitization results in breathing problems such as asthma and other lung ailments, as well as irritation of the eyes, nose and throat, and in the long term, can potentially be a career-ending health hazard. Exposure time varies, and there isn't a set time when exposure will trigger a reaction. A person can paint for 30 years without an incident or suddenly become allergic in a far shorter period of time. Aviation maintenance technicians must understand why and how to protect themselves from the hazards of paint exposure, especially isocyanates.

It is also essential for sanders and painters to look out for other technicians in their workspace. Maintenance leaders should schedule aircraft sanding and painting to minimize exposure to other maintenance technicians and promote the proper wearing of required PPE. Modifying work hours to reduce the heat index's impact can also pay dividends in the long run. Some examples of a modified work schedule are to have the corrosion work center work mid-check when the temperature is lower or a modified weekend night shift where they do non-hazardous preparatory work when other technicians are present and only paint on the weekend when minimal people are around. Based on the situation, establishing mandatory water or rest breaks for workers may be required, especially while operating in hot and humid environments.



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To control occupational diseases caused by breathing contaminated air with harmful dust and fumes, personnel must protect themselves by wearing the right PPE at all times, regardless of the environments they work in. Technicians must be familiar with safety data sheets for the hazardous materials they are working with daily and must wear the PPE prescribed to protect themselves for long-term health and wellness. As an aircraft maintenance technician, many of the hazards we encounter performing our daily work tasks are not realized until years after the work. Monitor yourself and step away from the hazard when it gets uncomfortable or when fatigue sets in instead of continuing to expose yourself.

Leadership needs to continuously monitor and supervise personnel working in these environments, ensuring the correct PPE usage, and verifying the welfare of their personnel. Even when the weather makes PPE use uncomfortable, it is still vitally important that required protective equipment be applied. It is a maintenance leader's duty to minimize their technicians' exposure to hazards, and in many cases, modifications to the work schedule are an excellent first step toward changing the environmental conditions to promote PPE use. When this is not possible, we must ensure risks are mitigated by other means to affirm technicians are following the protective guidelines set out for the task they are performing.