



BUILD ELECTRONICS BETTER

# IPC SPECIAL REPORT:

## COVID-19 AND BEST PRACTICES FOR WORKER HEALTH PROTECTION IN THE ELECTRONICS MANUFACTURING INDUSTRY



April 21, 2020

As part of IPC's ongoing efforts to help member companies cope with the COVID-19 pandemic, we convened a webinar on April 21, 2020 on the topic of best practices for protecting workers' health on the job. Three featured experts and more than 165 electronics industry members participated in the 90-minute webinar, and this report is a summary of the discussion.

## Situation Report

Throughout the crisis, many IPC member facilities have remained partly or fully operational because they are considered "essential" links in the supply chains for other key sectors including medical equipment, aerospace, national security, and critical infrastructure. The best practices discussed in the webinar reflect what the industry has learned to date, but more lessons will be learned as time goes on. There is no "one-size-fits-all" solution given the variety of geographic locations, facility sizes, workforce populations, and products manufactured across the industry. Regardless of that variety, all share the goal of continuing to protect worker health and safety.

Our guest speakers on the webinar represented printed circuit board manufacturing, interconnect manufacturing, and electronics manufacturing services (EMS):

- **John Schwan**, Senior Director of Global Health and Safety of TTM Technologies in Forest Grove, Oregon;
- **Martha Coopersmith-Gray**, Director of Environmental, Health & Safety and Product Stewardship at Amphenol Information Communications and Commercial Products Group (ICC) in Murray Hill, New Jersey; and
- **Bruce Klafter**, Vice President of Corporate Social and Environmental Responsibility, with Flex in San Jose, California.

## Common Themes

All three experts described their companies' efforts to reduce transmission among workers and maintain healthy work environments. Some of the common solutions being employed across the three companies are:

- Routine and standardized screening of worker temperatures;
- Routine and enhanced cleaning practices;
- Physical distancing;
- Required use of surgical masks;
- Implementation of written pandemic response plans and programs; and
- Creation of dedicated response teams comprised of executives, administrators, and experts in health and safety, legal, and human resource issues.

Among other common themes, the experts reported that their workers are generally using surgical masks or personal protective equipment (PPE) that is standard to their work functions. The dedicated response teams are tasked with assessing situations and acting on them quickly. Some of the companies are making their own masks; creating apps for tracking and tracing employees; and even providing on-site haircuts for employees. They all recommend hiring outside experts as needed and working with existing service providers and professionals to gain insights into their areas of expertise. For example, a company with facilities in multiple jurisdictions may need legal advisers to understand the local requirements in various states or countries. All three experts emphasized the importance of communications up and down the chain of command, and across the value chain.

During the webinar, we received more than 50 questions from the participants, and the majority fell into two categories: how to maintain a healthy work environment (e.g., use of masks, need for enhanced cleaning), and how to reduce transmission (e.g., screening and monitoring). We received several questions about specific types of disinfectants and PPE for which we do not have empirical knowledge to support a response.

**Under the headings below, we are providing the best information that we have at this time that is grounded in practical industry experience, as well several government resources addressing specific solutions.**

## **Face coverings and strategies to protect the breathing zone**

The intention of a face covering is to limit the spread of potentially infectious, exhaled aerosols from one worker to another during breathing, talking, sneezing, or coughing. A face covering should be used in combination with other controls such as physical distancing and handwashing.

### **Availability**

The industry experts on the webinar agreed that disposable surgical masks are standard in their facilities. Some facilities have purchased machines to produce their own single-use, surgical-style masks, so that all workers use the same standardized face covering. They are not using [N95](#) filtering facepiece respirators or half- or full-face respirators with assigned protection ratings. Those workers who are already enrolled in their facilities Respiratory Protection Programs are continuing to wear their approved equipment. The use of alternate face coverings such as bandannas or mouth guards is not advised.

IPC is exploring whether it makes sense for us to organize a marketplace exchange of this type of equipment among those in need. Also see:

CDC: [Interim Guidance for Conserving and Extending Filtering Facepiece Respirator Supply in Non-Healthcare Sectors](#)

FDA: [FAQs on Shortages of Equipment](#)

FDA: [N95 Respirators and Surgical Masks \(Face Masks\)](#)

**Note:** A face mask (also called a surgical mask, procedure mask, or other similar terms) should not be confused with PPE for a worker; the terms are not synonymous. A mask acts to contain potentially infectious respiratory secretions at the source (i.e., the person's nose and mouth), whereas PPE can take a variety of forms depending on the specific risks involved in job functions.

## Performing routine and enhanced cleaning and disinfection

Routine cleaning and disinfection are universally recognized as essential to the maintenance of a healthy work environment, especially now with COVID-19 being such a stealthy threat.

### Availability

Many common cleaning products are in short supply. Some chemical manufacturing companies have altered their facilities and/or production schedules to meet the increased demand. Products on the U.S. Environmental Protection Agency's (EPA) "N List" meet the EPA's criteria for use against the COVID-19 virus.

EPA: [List N: Disinfectants for Use Against SARS-CoV-2](#)

### Product management

Identifying the best disinfectants and techniques for your facilities and products is a case-by-case decision. If you are working with an external company to arrange and complete product cleaning, then the obligation is on you to explain the possible sensitivity of your equipment to the cleaning agents.

IPC's guest experts on the webinar relayed the risk assessment techniques they use. Namely, they consider the preparation of the product and the routine washing steps that are integral to the production; the packaging process for the product; and the duration between process steps or between the completion of the product and its distribution to the next point in the value chain. Also, they consider the worker protections already in place in the facilities (i.e. whether workers wear masks or PPE) to gauge direct contact with the product. More research is needed to identify a systematized risk assessment protocol to gauge the likelihood that a product could be contaminated, but using these criteria will enable a reasonable determination. More research is needed to identify reliable chemical and physical cleaning and disinfection techniques and exposure times for electronics components.

## **Additional cleaning**

The industry experts also said they increased the amount of cleaning between shifts at workstations and common areas. If you are working with an external company to arrange and complete the cleaning of the factory floor, breakrooms, warehouses, etc., then the obligation is on you to explain the possible sensitivity of your equipment to the cleaning agents. Additional research is needed to identify electronics-industry-unique requirements.

CDC: [Cleaning and Disinfecting Your Facility](#)

## **Prescreening workers in order to reduce transmission**

The industry experts on the webinar said they have instituted worker screening protocols as part of their arsenal of defense. We received several questions regarding the challenges of implementing a practical worker screening program, including:

- Who reads the temperatures?
- Where are the readings performed?
- Are temperatures recorded?
- What device is used to read temperatures?
- How do you distinguish a “real” high temperature?
- How frequently do you check temperature?

In our experts’ experience, temperature screening is performed by personnel who have been trained how to take the readings and wear N95 filtering facepieces, gloves, and splash goggles. The trained workers can include security guards, those with emergency management training, temporary emergency management staff, or medical staff.

Screening occurs in designated areas near controlled entrances. Some used staggered shift times to control the flow of workers through the screening points. Human resource professionals address workers who are uncomfortable coming into work or who refuse screening.

Screeners use medical grade, hand-held thermometers that measure in degrees Celsius. Readings are taken as often as every four hours or as infrequently as once per shift. Any temperature exceeding 38 degrees Celsius is identified as a high temperature. Workers with high temperatures are not permitted to enter facilities as normal and may be directed to a temporary medical center. The screening teams do not record temperatures, but they do issue armbands to indicate that the temperature was read upon arrival.

Some facilities do testing and analysis using a reverse transcription polymerase chain reaction test (RT-PCR), reflecting the concern that high temperature readings do not necessarily correlate to a positive test for COVID-19.

## **Recordkeeping, reporting, and privacy concerns**

### **Are COVID-19 cases to be recorded as workplace illnesses?**

Yes, COVID-19 cases are supposed to be recorded as workplace illnesses. Under OSHA's recordkeeping requirements, COVID-19 is a recordable illness, and employers are responsible for recording cases of COVID-19, if the case:

- is a confirmed case of COVID-19 (see [CDC information](#) on reporting cases of COVID-19);
- is work-related (as defined by [29 CFR 1904.5](#)); and
- involves one or more of the general recording criteria set forth in [29 CFR 1904.7](#) (e.g., medical treatment beyond first aid, days away from work).

OSHA: [Standards related to COVID-19](#)

### **Are there any privacy/HIPAA issues to worry about when doing health questionnaires during screening?**

This question is best answered by your Human Resources or Legal department. We do know that HIPAA applies only to "covered entities" and their business associates. Covered entities are health plans, health care clearinghouses, and those health care providers that conduct one or more covered health care transactions electronically, such as transmitting health care claims to a health plan.

U.S. Department of Health and Human Services: [HIPAA, Civil Rights, and COVID-19](#)

### **Are there equal employment opportunity concerns with access to or refusal of screening, testing, etc.?**

The Equal Employment Opportunity (EEO) laws, including the Americans with Disabilities Act (ADA) and the Rehabilitation Act, continue to apply during the pandemic, but they do not interfere with or prevent employers from following the guidelines and suggestions made by the CDC or state and local public health authorities about steps employers should take regarding COVID-19. Employers should remember that guidance from public health authorities is likely to change as the pandemic evolves. Therefore, employers should continue to follow the most current information on maintaining workplace safety.

U.S. Equal Employment Opportunity Commission: [Coronavirus and COVID-19](#)

U.S. Equal Employment Opportunity Commission: [What You Should Know About COVID-19 and the ADA, the Rehabilitation Act, and Other EEO Laws](#)

**For more information related to this Industry Update, please contact:**

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