

# OSHA Citations Manufacturing Journalist TR Cutler Interviews Ergonomics International About SaaS-based Risk Assessment

by TR CUTLER



Had the opportunity to speak with the founders of Ergonomics International who introduced a cost-effective evidence-based risk analysis software suite.

Mark Heidebrecht is a managing partner of Ergonomics International. He has provided forensic and expert witness services in the areas of biomechanics, human factors, ergonomics, and work physiology. He has testified in over 75 State Court and United States Federal Court cases as an expert witness and presented testimony at the Federal OSHA hearing regarding the National Ergonomic Standard. Heidebrecht has developed and implemented ergonomic programs and processes across North America.

Sam Bradbury is a managing partner of Ergonomics International. Bradbury is an international speaker and instructor on the topics of functional capacity, ergonomics, human factors, injury reduction, and engineered solutions for improved workplace quality,

efficiency, and human error reduction. Expertise includes testing and measuring the physical demands of work as well as return to work testing criteria, prevention of musculoskeletal disorders in the workplace, the effective implementation of ergonomic risk reduction processes, upper/lower body functional testing, human factors analysis/error reduction, and ergonomic team development. Bradbury is certified by the Board of Certified Professional Ergonomists as a Certified Ergonomist and holds a Six Sigma Black Belt Certification.

Ergonomics International's Evidence-Based Risk Analysis Software Suite utilizes standardized tools which have high validity and reliability. These tools provide management with real-time data to make evidence-based decisions, yet data is simple enough for ergonomic, safety, occupational health, Lean Manufacturing, and Six-Sigma professionals to understand and apply.

**TRC:** How does Ergonomics International's Risk Assessment SaaS solution assist companies overcoming whether OSHA will cite them under the General Duty Clause?

**Sam/Mark:** A brief summation of the OSHA general duty clause, Section 5(a)(1) of the Occupational Safety and Health Act, requires that each employer furnish to each of its employees a workplace that is free from recognized hazards that are causing or likely to cause death or serious physical harm.

Traditional ergonomic analysis tools may overestimate risk sending companies down trails to fixing hazards that are not the true high risks. This also includes personal risk factors that may be more involved in certain musculoskeletal injuries that the company takes on as a hazard that is not really a hazard.

The SaaS system prioritizes and provides risk identification where employers may be most vulnerable and where they should likely focus dollars and resources on the reduction of risk.

Documenting the tasks and levels of risk associated with the task/job aids in providing a road map to companies on making change, understanding where changes have been made, the reductions in risk made and the resources spent to reduce those risks are better understood.

**TRC:** Specifically, how does this technology help a QA/QC professional know whether an ergonomic hazard exists?

**Sam/Mark:** Many times, quality findings are present where mental or physical demands exceed the capabilities of the individual. This can occur when the speed of movement or decision-making thresholds are greater than of those of the individual based on known decision-making capabilities.

These breakdowns lead to increased rework and failures in the quality verification leading to a

repetitive cycle of failure. This leads to increased work and resources to produce the same number of products at a higher cost.

The SaaS system evaluates the job or task to determine if the level of repetition exceeds known standards determined to be harmful.

**TRC:** What data-driven metrics are used to determine whether a hazard is recognized? Equally important, share how the software evaluates whether the hazard is causing, or is likely to cause, serious physical harm to employees.

**Sam/Mark:** Using epidemiological standards and processes, the SaaS system evaluates the actual task from multiple empirical levels that have been shown to be a hazard. This includes from the employee, epidemiological data on causation, and using standardized peer reviewed tools to cross validate decision making. The system then produces quantile levels of risk so that companies can determine where they are making effective changes, how much risk is greater than the normal population and what the potential cost associated with the risk will be if mitigation does not occur.

**TRC:** Is there a mechanism within the technology to determine whether a feasible means exists to reduce the hazard?

**Sam/Mark:** Yes, as an example the SaaS system can provide the company with a solutions "catalog" that provides them with potential solutions for a specific risk factor. These may be listed as both, administrative controls and/or engineered solutions. An administrative control may be that the company looks at the built-in line rotation simulator to determine risk reduction or choose from a list of known engineered products available on the open market that could fix the problem or even state that the risk need further review.

OSHA will not focus its enforcement efforts on employers who are making good faith efforts





to reduce ergonomic hazards. This means the employers must implement ergonomic efforts at individual worksites. OSHA has issued citations to companies that have evidenced corporate commitment to lowering ergonomic hazards in their workplaces BUT have failed to effectively implement that commitment at specific sites. The General Duty Clause applies to conditions at individual worksites. Therefore, corporate commitment must be translated to positive action at the individual workplaces, or OSHA will not hesitate to issue citations where appropriate.

**TRC:** Does the cost-effective assessment tool by Ergonomics International constitute a good faith effort?

**Sam/Mark:** The tool would offer a good faith effort to the reduction for ergonomics, this does

not constitute a good faith effort for other safety concerns. A good faith effort is based on the documentation available to demonstrate this to the OSHA auditor. Having the SaaS system in place and using it effectively and documenting everything appropriately, however, if the employer is not documenting they have actually implemented and can demonstrate the changes are in place they could still be cited.

The tool documents that the employer has evaluated the risk, understands the level of risk, may or may not have implemented risk mitigation strategies, and has the data to make good decisions. Unfortunately, the system cannot control actual implementation of change or effective implementation of change. There is a human component involved.

Even in cases where OSHA does not cite an employer, if ergonomic hazards exist, it may issue hazard alert letters describing ways to reduce the hazards and resources available to assist employers in this process. An important new feature is that OSHA will follow up with some companies that receive these letters, checking to evaluate what actions the employers have taken to address ergonomic hazards.

**TRC:** What output is offered by the SaaS solution that documents the actions suggested and made by the employer?

**Sam/Mark:** The SaaS system can document project solution implementation to mitigation if the employer puts this information into the system. The system will provide an engineered solution

documentation path which includes resource costs to make those changes and the return on investment associated with the changes based on the risks found.

#### Author Profile



*Thomas R. Cutler is the President and CEO of Fort Lauderdale, Florida-based, TR Cutler, Inc., celebrating its 21st year. Cutler is the founder of the Manufacturing Media Consortium*

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