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JULER GROUP PROVIDES RISK ASSESSMENT PROCESS FOR ANNOTATED PELS AND INDUSTRIAL CHEMICALS FOR HSE PROFESSSIONALS

Austin, Texas. February 9, 2015 – Juler Group Incorporated has developed a systematic and reproducible method for risk assessment of chemicals, and hazardous agents, with permissible exposure limits (PEL) and annotated PELs, new chemical entities (NCE's) and other chemicals found in the work place.

The Occupational Health and Safety Administration (OSHA) created by Congress under the OSH Act of 1970 require employers, under the general duty clause (GDC), to recognize and eliminate physical, chemical and even psychological hazards that may lead to injury, illness or death. OSHA has since developed code of federal regulations (CFR) for approximately four hundred seventy six (476) chemical entities, that may be found, with their respective PEL's, in 29 CFR 1910.1000 Subpart Z Toxic and Hazardous Substances, and within tables Z-1 through Z-3. In addition, certain entities have specific CFR's such as hexavalent chromium (1910.1026), Asbestos (1910.1001), Ethylene Oxide (1910.1047) to address specific issues.

Recently, OSHA has increased its efforts to address decades old and antiquated PEL's that most experts have deemed inadequate to protect employees. After the agency's failed attempt, sixteen years ago, to amend the current list of PEL's it has "annotated" the list with more stringent recommended exposure limits (REL) by the National Institutes of Occupational Safety and Health (NIOSH), Threshold Limit Values (TLV) by the American Conference of Governmental Industrial Hygienists (ACGIH) and self promulgated PEL's by California OSHA. Furthermore, OSHA also uses "Voluntary Limits" (VL) either set by industry associations or individual organizations in their enforcement activities. OSHA has been using these exposure limits to issue citations under the GDC in what is termed GDC Preemption. Some argue that the GDC preemption can only be applied to those entities without a specific standard, which would eliminate only forty-three (43) chemicals from citation under annotated limits.

It is noted here that the above brief overview of PEL's, REL's, TLV's and VEL's does not include all the chemicals found in the U.S. work place, which according to OSHA number over 300,000.

What does this mean for employers?

Federal standards require employers to conduct risk and hazard assessments in order to identify all hazards in the workplace. For chemicals this may mean monitoring by air and surface sampling to quantitatively determine whether the chemical entity is present in concentrations above the PEL. In addition to the published PEL other enforceable limits include the action level (AL) or one-half the PEL, and short-term exposure (STEL) and ceiling limits.

In light of annotated PEL's employers must now take into consideration NIOSH REL's, ACGIH TLV's, CalOSHA PEL's and VL's in order to perform their due diligence in the hazard assessment process. The bottom-line for an employer; it takes a little more time and effort to ensure employees are protected from hazardous agents.

So how can an employer put this puzzle together?

By performing a chemical risk assessment to identify and characterize the risk exposure and determine next steps This method consists of the following elements.

1. Conduct a comprehensive chemical inventory, which may be part of a more thorough chemical management system,
2. Perform a process map where and how chemicals are used, and how operators and controls interact,
3. Acquire all Safety Data Sheets (SDS/MSDS) for every product or raw material including items such as welding rods and grinding wheels,
4. Enter every component from all SDS's into the TouQAM Chemical Risk Assessment Tool,
5. Enter every limit; PEL, AL, STEL, Ceiling, REL. TLV, WEEL, OEL and IARC classification,
6. Enter process and controls information,
7. TouQAM algorithms will produce Exposure Risk Ratings for prioritization and mitigation planning.

This systematic and reproducible method produces an exposure risk rating that enable an employer to develop a sampling strategy for all individual formulation components that have published limits. When a chemical component is ranked low it indicates that quantitative industrial hygiene (IH) sampling is not needed under its current process scenario, and when a chemical component is ranked high then it must be quantified by IH sampling. With either outcome the employer has performed its due diligence.

Upon completion of this chemical risk assessment appropriate programs may be drafted and implemented, controls may undergo feasibility analysis, and personal protective equipment may be determined based upon actual process conditions and chemical levels present at each step in the process.

The TouQAM risk assessment is a two-step process with many chemical entities remaining at step one the Qualitative Assessment, and only a portion moving into the Quantitative step. By using this process, under the supervision of a certified industrial hygienist, the HSE manager can carry out their due diligence, thereby ensuring efforts are being made toward protecting employee health and minimizing organizational liability.

Juler Group Incorporated is a professional and technical services firm offering total solutions for the occupational health, safety and environmental professional. Juler Group provides risk and hazard assessment services, industrial hygiene monitoring support, safety program design and implementation, health and safety audits, process safety management, leadership and ethics services, and unequaled training development and delivery. We help you manage risk in the workplace.

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