

## CHAPTER IV VIOLATIONS

### A. Basis of Violations.

#### A.1. Standards and Regulations.

KRS Chapter 338.031(1)(b) of the Kentucky Occupational Safety and Health Law states that each employer has a responsibility to comply with the occupational safety and health standards promulgated under the Law. The specific standards and regulations are found in Title 29 Code of Federal Regulations (CFR) 1900 series. Subparts A and B of 29 CFR 1910 specifically establish the source of all the standards which are the basis of violations. The standards are subdivided as follows:

Part – 1910	Subsection – 1910.23(a)
Subpart – D	Paragraph – 1910.2(c)(1)
Section – 1910.23	Subparagraph – 1910.23(c)(1)(i)

NOTE: The most specific subdivision of the standard shall be used for citing violations.

#### A.1.a. Definition and Application of Horizontal and Vertical Standards.

Vertical standards are those standards which apply to a particular industry or to particular operations, practices, conditions, processes, means, methods, equipment or installations. Horizontal standards are those standards which apply when a condition is not covered by a vertical standard. Within both horizontal and vertical standards there are general standards and specific standards.

A.1.a.(1) General standards are those which address a category of hazards and whose coverage is not limited to a special set of circumstances; e.g., 29 CFR 1910.132(a), 29 CFR 1910.212(a)(1) or (a)(3)(ii), 29 CFR 1910.307(b) and 29 CFR 1926.28(a).

A.1.a.(2) Specific standards are those which are designed to regulate a specific hazard and which set forth the measures that the employer must take to protect employees from that particular hazard; e.g., 29 CFR 1910.23(a)(1) and 29 CFR 1926.451(d)(10).

A.1.a.(3) These are two types of vertical standards:

A.1.a.(3)(a) Standards that apply to particular industries (Maritime, Construction, etc.) and standards that apply to particular sub-industries as contained in subpart R of 29 CFR 1910 for sawmills, wood pulping, laundries, etc., and

A.1.a.(3)(b) Standards that state more detailed requirements for certain types of operations, equipment, or equipment usage than are stated in another (more general) standard in the same part; e.g., requirements in 29 CFR 1910.213 for woodworking machinery.

A.1.a.(4) If a CSHO is uncertain whether to cite under a horizontal or a vertical standard when both apply, the supervisor shall be consulted. The following general guidelines apply:

A.1.a.(4)(a) When a hazard in a particular industry is covered by both a Vertical (e.g., 29 CFR 1915) standard and a horizontal (e.g., 29 CFR 1910) standard, the vertical standard shall take precedence. This is true even if the horizontal standard is more stringent.

A.1.a.(4)(b) If the particular industry does not have a vertical standard that covers the hazard, then the CSHO shall use the horizontal (general industry) standard.

A.1.a.(4)(c) When a hazard within general industry (29 CFR 1910) is covered by both a horizontal (more general) standard and a vertical (more specific) standard, the vertical standard takes precedence. For example, in 29 CFR 1910.213 the requirement for point of operation guarding for swing saws is more specific than the general machine guarding requirements contained in 29 CFR 191.212. However, if the swing saw is used only to cut material other than wood, 29 CFR 1910.212 is applicable.

A.1.a.(4)(d) In addition, industry vertical standards take precedence over equipment vertical standards. Thus, if the swing saw is in a sawmill, the more specific standard for sawmills is 29 CFR 191.265 rather than 29 CFR 1910.213.

A.1.a.(4)(e) In situations covered by both a horizontal (general) and a vertical (specific) standard where the horizontal standard appears to offer greater protection, the horizontal (general) standard may be cited only if its requirements are not inconsistent or in conflict with the requirements of the vertical (specific) standard. To determine whether or not there is a conflict or inconsistency between the standards, a careful analysis of the intent of the two standards must be performed. The results of the analysis must show that the vertical standard does not address the precise hazard involved, even though it may address related or similar hazards.

**EXAMPLE:** In tiered structural steel erection, 29 CFR 1926.105(a) may not be cited for interior fall distances of more than 25 ft. above the temporary flooring since that specific situation is covered by 29 CFR 1926.750(b)(2) for fall distances of more than 30 ft.

A.1.a.(4)(f) When determining whether a horizontal or a vertical standard is applicable to a work situation, the CSHO shall focus attention on the activity in which the employer is engaged at the establishment being inspected rather than the nature of the employer's general business.

A.1.a.(4)(g) Hazards found in construction work that are not covered by a specific 29 CFR 1926 standard shall not normally be cited under a 29 CFR 1910 standard unless that standard has been identified as being applicable to construction (i.e., but not limited to, 29 CFR 1910.1020, Access to Employee Exposure and Medical Records, 29 CFR 1910.1200, Hazard Communication, and 29 CFR 1910.134, Respiratory Protection).

A.1.a.(4)(g)(1) “Construction work” means work for construction, alteration and/or repair including painting and decorating and includes both contract and non-contract work. (See 29 CFR 1926.13.)

A.1.a.(4)(g)(2) Reserved.

A.1.a.(4)(g)(3) Reserved.

A.1.b. Violation of Variances.

The employer’s requirement to comply with a standard may be modified through granting of a variance, as outlined in KRS Chapter 338.153.

A.1.b.(1) An employer will not be subjected to citation if the observed condition is in compliance with either the granted variance or the controlling standard. In the event that the employer is not in compliance with the requirements of the variance, a violation of the controlling standard shall be cited with a reference in the citation to the variance provision that has not been met.

A.1.b.(2) If, during the course of a compliance inspection, the CSHO discovers that the employer has filed an application for variance regarding a condition which is determined to be an apparent violation of the standard, this fact shall be reported to the supervisor who will obtain information concerning the status of the variance request.

A.2. General Duty Requirement.

KRS Chapter 338.031(1)(a) of the Law requires that “Each employer shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees”.

A.2.a. Evaluation of Potential General Duty Situations.

In general, Review Commission and court precedent has established that the following elements are necessary to prove a violation of the general duty clause:

A.2.a.(1) The employer failed to keep the workplace free of a hazard to which employees of that employer were exposed;

A.2.a.(2) The hazard was recognized;

A.2.a.(3) The hazard was causing or was likely to cause death or serious physical harm; and

A.2.a.(4) There was a feasible and useful method to correct the hazard.

A.2.b. Discussion of General Duty Clause Elements.

The above four elements of a General Duty violation are discussed in greater detail as follows:

A.2.b.(1) A Hazard To Which Employees Were Exposed.

A general duty citation must involve both a serious hazard and exposure of employees.

A.2.b.(1)(a) Hazard.

A hazard is a danger which threatens physical harm to employees.

A.2.b.(1)(a)(1) Not the Lack of a Particular Abatement Method.

In the past, some General Duty Clause citations have incorrectly alleged that the violation is the failure to implement certain precautions, corrective measures or other abatement steps rather than the failure to prevent or remove the particular hazard. It must be emphasized that the General Duty Clause does not mandate a particular abatement measure but only requires an employer to render the workplace free of certain hazards by any feasible and effective means which the employer wishes to utilize.

A.2.b.(1)(a)(1)(a) In situations where it is difficult to distinguish between a dangerous condition and the lack of an abatement method, the Supervisor shall consult with the Program Manager for assistance in articulating the hazard property.

Example 1: Employees doing sanding operations may be exposed to the hazard of fire caused by sparking in the presence of magnesium dust. One of the abatement methods may be training and supervision. The “hazard” is the exposure to the potential of a fire; it is not the lack of training and supervision.

Example 2: In another situation, a danger of explosion due to the presence of certain gases could be remedied by the use of non-sparking tools. The “hazard” is the explosion hazard due to the presence of the gases; it is not the lack of non-sparking tools.

Example 3: In a hazardous situation involving high pressure gas where the employer has failed to train employees properly, has not installed the proper high pressure equipment, and has improperly installed the equipment that is in place, there are three abatement measures which the employer failed to take. There is only one hazard (via., exposure to the hazard of explosion due to the presence of high pressure gas) and hence only one general duty clause citation.

A.2.b.(1)(a)(1)(b) Where necessary, the Program Manager shall consult with the General Counsel.

A.2.b.(1)(a)(2) The Hazard Is Not a Particular Accident.

The occurrence of an accident does not necessarily mean that the employer has violated the General Duty Clause although the accident may be evidence of a hazard. In some cases a General Duty Clause violation may be unrelated to the accident. Although accident facts may be relevant and shall be gathered, the citation shall address the hazard in the workplace, not the particular facts of the accident.

Example: A fire occurred in a workplace where flammable materials were present. No employees was injured by the fire itself but an employee, disregarding the clear instructions of his supervisor to use an available exist, jumped out of a window and broke a leg. The “danger” of fire due to the presence of flammable materials may be a recognized hazard causing or likely to cause death or serious physical harm, but the action of the employee may be an instance of unpreventable employee misconduct. The citation should deal with the fire hazard, not with the accident involving the employee who broke his leg.

A.2.b.(1)(a)(3) The Hazard Must Be Reasonably Foreseeable.

The hazard for which a citation is issued must be reasonably foreseeable.

A.2.b.(1)(a)(3)(a) All the factors which could cause a hazard need not be present in the same place at the same time in order to prove foreseeability of the hazard; e.g., an explosion need not be imminent.

Example: If combustible gas and oxygen are present in sufficient quantities in a confined area to cause an explosion if ignited but no ignition source is present or could be present, a General Duty Clause violation would not exist. If an ignition source is available at the workplace and the employer has not taken sufficient safety precautions to preclude its use in the confined area, then a foreseeable hazard may exist.

A.2.b.(1)(a)(3)(b) It is necessary to establish the reasonable foreseeability of the general workplace hazard, rather than the particular hazard which led to the accident.

Example: A titanium dust fire may have spread from one room to another only because an open can of gasoline was in the second room. An employee who usually worked in both rooms was burned in the second room from the gasoline. The presence of gasoline in the second room may be a rare occurrence. It is not necessary to prove that a fire in both rooms was reasonably foreseeable. It is necessary only to prove that the fire hazard, in this case due to the presence of titanium dust, was reasonably foreseeable.

A.2.b.(1)(b) The Hazard Must Affect the Cited Employer’s Employees.

The employees affected by the General Duty Clause hazard must be the employees of the cited employer.

A.2.b.(1)(b)(1) An employer who may have created, contributed to, and/or controlled the hazard normally shall not be cited for a General Duty Clause violation if his own employees are not exposed to the hazard. (See Chapter V, F.2.e.).

A.2.b.(1)(b)(2) In complex situations such as multi-employer work sites where it may be difficult to identify the precise employment relationship between the employer to be cited and the exposed employees, the Director shall consult with the General Counsel to determine the sufficiency of the evidence regarding the employment relationship.

A.2.b.(1)(b)(3) The fact that an employer denies that exposed employees are his/her employees does not necessarily decide the legal issue involved. Whether or not exposed persons are employees of an employer depends on several factors, the most important of which is who controls the manner in which the employees perform their assigned work. The question of who pays these employees may not be the determining factor.

A.2.b.(2) The Hazard Must be Recognized.

Recognition of a hazard can be established on the basis of industry recognition, employer recognition, or “common sense” recognition. The use of common sense as the basis for establishing recognition shall be limited to special circumstances. Recognition of the hazard must be supported by satisfactory evidence and adequate documentation in the file as follows:

A.2.b.(2)(a) Industry Recognition.

A hazard is recognized if the employer’s industry recognizes it. Recognition by an industry other than the industry to which the employer belongs is generally insufficient to prove this element of a General Duty Clause violation. Although evidence of recognition by the employer’s specific branch within the industry is preferred, evidence that the employer’s industry recognizes the hazard may be sufficient. Industry recognition of a particular hazard can be established in several ways:

A.2.b.(2)(a)(1) Relevant statements by safety or health experts who are familiar with the industry.

A.2.b.(2)(a)(2) Evidence of implementation of abatement methods to deal with the particular hazard by other members of the industry.

A.2.b.(2)(a)(3) Manufacturer’s warnings on equipment which are relevant to the hazard.

A.2.b.(2)(a)(4) Statistical or empirical studies conducted by the employer’s industry which demonstrate awareness of the hazard. Evidence such as studies conducted by the employee representatives, the union or other employees should also be considered if the employer or the industry has been made aware of them.

A.2.b.(2)(a)(5) Government and insurance industry studies, if the employer or the or the employer’s industry is familiar with the studies and recognizes their validity.

A.2.b.(2)(a)(6) State and local laws or regulations which apply in the jurisdiction where the violation is alleged to have occurred and which currently are enforced against the industry in question. In such cases, however, corroborating evidence of recognition is recommended.

A.2.b.(2)(a)(6)(a) Regulations of other Federal Agencies or of State Atomic Energy Agencies generally shall not be used. They raise substantial difficulties under KRS Chapter 338.021(1)(b) of the Law, which provides that the KY OSH Program is preempted when such an agency has statutory authority to deal with the working condition in question.

A.2.b.(2)(a)(6)(b) In cases where State and local government agencies not falling under the preemption provisions of KRS Chapter 338.021(1)(b) have codes or regulations covering hazards not addressed by KY OSH Program standards, the Director shall determine whether the hazard is to be cited under the General Duty Clause or referred to the appropriate local agency for enforcement.

EXAMPLE: A safety hazard on a personnel elevator in a factory may be documented during inspection. It is determined that the hazard is not clearly citable under the General Duty Clause but there is a local code which addresses this hazard and a local agency actively enforces the code. The situation normally shall be referred to the local enforcement agency in lieu of citing the General Duty Clause.

A.2.b.(2)(a)(7) Standards issued by the American National Standards Institute (ANSI), the National Fire Protection Agency (NFPA), and other private standard setting organizations, if the relevant industry participated on the committee drafting the standards. Otherwise, such private standards normally shall be used only as corroborating evidence of recognition. Preambles to these standards which discuss the hazards involved may show hazard recognition as much as, or more than, the actual standards. It must be emphasized, however, that these private standards cannot be enforced like KY OSH Program standards. They are simply evidence of industry recognition, seriousness of the hazard or feasibility of abatement methods.

A.2.b.(2)(a)(8) NIOSH criteria documents; the publications of EPA, the National Cancer Institute, and other agencies; KY OSH Program hazard alerts; the KY OSH Program Technical Manual; and articles in medical or scientific journals by persons other than those in the industry, if used only to supplement other evidence which more clearly establishes recognition. Such publications can be relied upon only if it is established that they have been widely distributed in general, or in the relevant industry.

A.2.b.(2)(b) Employer Recognition.

A recognized hazard can be established by evidence of actual employer knowledge. Evidence of such recognition may consist of written or oral statements may by the employer or other management or supervisory personnel during or before the KY OSH Program inspection.

A.2.b.(2)(b)(1) Company memorandums, safety rules, operating procedures, and collective bargaining agreements may reveal the employer's awareness of the hazard. In addition, accident, injury and illness reports prepared for KY OSH Program, worker's compensation, or other purposes may show this knowledge.

A.2.b.(2)(b)(2) Employee complaints or grievances to supervisory personnel may establish recognition of the hazard, but the evidence should show that the complaints were not merely infrequent, offhand comments.

A.2.b.(2)(b)(3) The employer's own corrective action may serve as basis for establishing employer recognition of the hazard if the employer did not adequately continue or maintain the

corrective action or if the corrective action did not afford any significant protection to the employees.

A.2.b.(2)(c) Common Sense Recognition.

If industry or employer recognition of the hazard cannot be established in accordance with (a) and (b), recognition can still be established if it is concluded that any reasonable person would have recognized the hazard. This theory of recognition shall be used only in flagrant cases. Example: In a general industry situation, a court has held that any reasonable person would recognize that it is hazardous to dump bricks from an unclosed chute into an alleyway between buildings which is 26 feet below and in which unwarned employees work. (In construction, the General Duty Clause could not be cited in this situation because 29 CFR 1926.252 or 1926.852 applies.)

A.2.b.(3) The Hazard was causing or Was Likely to Cause Death or Serious Physical Harm.

This element of the General Duty Clause violation is virtually identical to the substantial probability element of a serious violation under KRS Chapter 338.990(11). Serious physical harm is defined in B.1. of this Chapter. This element of a General Duty Clause violation can be established by showing that:

A.2.b.(3)(a) An actual death or serious injury resulted from the recognized hazard, whether immediately prior to the inspection or at other times and places; or

A.2.b.(3)(b) If an accident occurred, the likely result would be death or serious physical harm. For example, an employee exposed to an unprotected edge 25 feet above the ground. Under these circumstances if the falling incident occurs, death or serious physical harm (e.g., broken bones) is likely.

A.2.b.(3)(c) In a health context, establishing serious physical harm at the cited levels may be particularly difficult if the illness will require the passage of a substantial period of time to occur. Expert testimony is crucial to establish that serious physical harm will occur for such illnesses. It will generally be easier to establish this element for acute illnesses, since the immediacy of the effects will make the causal relationship clearer. In general, the following must be shown to establish that the hazard causes or is likely to cause death or serious physical harm when such illness or death will occur only after the passage of a substantial period of time:

A.2.b.(3)(c)(1) Regular and continuing employee exposure at the workplace to the toxic substance at the measured levels reasonably could occur;

A.2.b.(3)(c)(2) Illness reasonably could result from such regular and continuing employee exposure; and

A.2.b.(3)(c)(3) If illness does occur, the likely result is death or serious physical harm.



A.2.b.(4) The Hazard May Be Corrected by a Feasible and Useful Method.

To establish a General Duty Clause violation the agency must identify a method that is feasible, available and likely to correct the hazard. The information shall indicate that the recognized hazard, rather than a particular accident, is preventable.

A.2.b.(4)(a) If the proposed abatement method would eliminate or significantly reduce the hazard beyond whatever measures the employer may be taking, a General Duty Clause citation may be issued. A citation shall not be issued merely because the agency knows of an abatement method different from that of the employer, if the agency's method would not reduce the hazard significantly more than the employer's method. It must also be noted that in some cases only a series of abatement methods will alleviate a hazard. In such a case all the abatement methods shall be mentioned.

A.2.b.(4)(b) Feasible and useful abatement methods can be established by references to:

A.2.b.(4)(b)(1) The employer's own abatement method which existed prior to the inspection but was not implemented;

A.2.b.(4)(b)(2) The implementation of feasible abatement measures by the employer after the accident or inspection;

A.2.b.(4)(b)(3) The implementation of abatement measures by other Companies;

A.2.b.(4)(b)(4) The recommendations by the manufacturer of the Hazardous equipment involved in the case; and

A.2.b.(4)(b)(5) Suggested abatement methods contained in trade journals, private standards and individual employer standards. Private standards shall not be relied on in a General Duty Clause citation as mandating specific abatement methods.

A.2.b.(4)(b)(5)(a) For example, if an ANSI standard deals with the hazard of exposure to hydrogen sulfide gas and refers to various abatement methods, such as the prevention of the buildup of materials which create the gas and the provision of ventilation, the ANSI standard may be used as evidence of the existence of feasible abatement measures.

A.2.b.(4)(b)(5)(b) The citation for the example given shall state that the recognized hazard of exposure to hydrogen sulfide gas was present in the workplace and that a feasible and useful abatement method existed; e.g., preventing the buildup of gas by providing an adequate ventilation system. It would not be correct to issue a citation alleging that the employer failed to prevent the buildup of materials which could create the gas and failed to provide a ventilation system as both of these are abatement methods, not hazards.

A.2.b.(4)(b)(6) Evidence provided by expert witnesses which demonstrates the feasibility of the abatement methods. Although it is not necessary to establish that the industry recognizes a particular abatement method, such as evidence shall be used if available.

A.2.c. Use of the General Duty Clause.

The general duty provisions shall be used only where there is no standard that applies to the particular hazard involved, as outlined in 29 CFR 1910.5(f).

A.2.c.(1) The general duty clause may be applied in situations where a recognized hazard is created in whole or in part by conditions not covered by a standard. An example of a hazard covered only partially by a standard is a situation where an employee could be subject to an over exposure of an air contaminant covered under 1910.1000 or to an atmosphere containing less than sixteen (16) percent oxygen. The latter condition could legitimately be cited under the general duty clause with the former cited under the appropriate standard.

A.2.c.(2) The general duty clause may be applicable to some types of employment which are inherently dangerous (fire brigades, emergency rescue operations, (etc.)). Employers involved in such occupations must take the necessary steps to eliminate or minimize employee exposure to all recognized hazards which are likely to cause death or serious physical harm. These steps include anticipation of hazards which may be encountered, provision of appropriate protective equipment, and prior provision of training, instruction, and necessary equipment. An employer who has failed to take appropriate steps on any of these or similar items and has allowed the hazard to continue to exist may be cited under the general duty clause (if not covered under a standard).

A.2.d. Limitations on Use of the General Duty Clause.

The General Duty Clause is to be used only within the guidelines given in A.2.a. of this chapter.

A.2.d.(1) The General Duty Clause shall not be used when a standard applies to a hazard. Both 29 CFR 1910.5(f) and legal precedent establish that the General Duty Clause may not be used if a Kentucky OSH Program standard applies to the hazardous working condition.

A.2.d.(1)(a) Prior to issuing a General Duty Clause citation, the standards must be reviewed carefully to determine whether a standard applies to the hazard. If a standard applies, the standard shall be cited rather than the General Duty Clause. Prior to the issuance of a General Duty Clause citation, a notation shall be made in the file to indicate that the standards were reviewed and no standard applies.

A.2.d.(1)(b) If there is a question as to whether a standard applies, the General Counsel will assist the Director in determining the applicability of the standard.

A.2.d.(1)(c) The Duty Clause may be cited in the alternative when a standard is also cited to cover a situation there is doubt as to whether the standard applies to the hazard.

A.2.d.(1)(c)(1) If the issue of the applicability of a specific standard is raised in a subsequent informal conference or notice of contest proceeding, the Director shall consult with the General Counsel for appropriate legal advice.

A.2.d.(1)(c)(2) If, on the other hand, the issue of the preemption of the general duty clause by a standard is raised in a subsequent informal conference or notice of contest proceeding, the Director shall consult with the General Counsel for appropriate legal advice.

A.2.d.(2) The General Duty Clause Shall Not Normally Be Used To Impose a Stricter Requirement Than That Required by The Standard.

If a standard provides for a permissible exposure limit (PEL) of five (5) ppm, even if data establishes that a three (3) ppm level is a recognized hazard, the General Duty Clause shall not be cited to require that the three (3) ppm level be achieved. If the standard(s) has only a time weighted average permissible exposure level and the hazard involves exposure above a recognized ceiling level, the Supervisor shall consult with the Program Manager, who shall discuss any proposed citation with the General Counsel.

A.2.d.(3) The General Duty Clause Shall Normally Not Be Used to Require an Abatement Method Not Set Forth in a Specific Standard.

A specific standard is one that refers to a particular toxic substance or deals with a specific operation, such as welding. If a toxic substance standard covers engineering control requirements but not requirements for medical surveillance, the General Duty Clause shall not be cited to require medical surveillance.

A.2.d.(4) The General Duty Clause Shall Not Be Used to Enforce "Should" Standards.

If a standard or its predecessor, such as an ANSI standard, uses the work "should" neither the standard nor the General Duty Clause shall ordinarily be cited with respect to the hazard addressed by the "should" portion of the standard.

A.2.d.(5) The General Duty Clause Shall Not Normally Be Used To Cover Categories of Hazards Exempted by a Standard.

Although no hard and fast general rule can be stated concerning the use of the General Duty Clause to cover specific categories of hazard, types of machines, operations, or industries exempted from coverage by a standard, the General Duty Clause shall normally not be cited if the reason for the exemption is the lack of a hazard.

A.2.d.(5)(a) If, on the other hand, the reason for the exemption is that the drafters of the standard (or source document) declined to deal with the exempt category for reasons other than the lack of a hazard, the general duty clause may be cited if all the necessary elements for such a citation are present.

A.2.d.(5)(b) Supervisors shall evaluate the circumstances of special situations in accord with guidelines stated herein and consult with the Program Manager to determine whether a General Duty Clause citation can be issued in those special cases.

A.2.d.(6) Alternative Standards.

There are a number of general standards that shall be considered for citation rather than General Duty Clause in certain situations that initially may not appear to be governed by a standard.

A.2.d.(6)(a) If a hazard not covered by a specific standard can be substantially corrected by compliance with a personal protective equipment (PPE) standard, the PPE standard shall be cited. In general industry, 29 CFR 1910.132(a) may be appropriate where exposure to a hazard may be prevented by the wearing of PPE.

A.2.d.(6)(b) For a health hazard, the particular toxic substance standards, such as asbestos and coke oven emission, shall be cited where appropriate. If those particular standards do not apply, however, other standards may be applicable; e.g., the air contaminant levels contained in 29 CFR 1910.1000 may apply in general industry and those contained in 29 CFR 1926.55 may apply in construction.

A.2.d.(6)(c) Another standard which may possibly be cited in 29 CFR 1910.134(a) which deals with the hazards of breathing harmful air contaminants not covered under 29 CFR 1910.1000 or another specific standard and requires the use of feasible engineering controls and the use of respirators where engineering controls are not feasible.

A.2.d.(6)(d) In addition, 29 CFR 1910.141(g)(2) may be cited when employees are allowed to consume food or beverages in an area exposed to a toxic material., and 29 CFR 1910.132(a) may be cited when toxic materials are absorbed through the skin.

A.2.d.(6)(e) The foregoing standards as well as others which may be applicable shall be considered carefully before issuing a General Duty Clause citation for a health hazard.

A.2.e. Classification of Violations Cited Under the General Duty Clause.

Only those hazards alleging serious violations may be cited under the general duty clause (including willful and/or repeated violations which would otherwise qualify as serious violations, except for their willful or repeated nature). Other-than- serious citations shall not be issued for violations based on the general duty clause.

A.2.f. Procedures for Implementation of the General Duty Clause Enforcement.

To ensure that all citations of the general duty clause are fully justified, the following procedures shall be carefully adhered to.

A.2.f.(1) Gathering Evidence and Preparing the File.

The evidence necessary to establish each element of a General Duty Clause violation shall be documented in the file. This includes all photographs, videotapes, sampling data, witness statements and other documentary and physical evidence necessary to establish the violation. Additional documentation includes why it was common knowledge, why it was detectable, why it was recognized practice and supporting statements or reference materials.

A.2.f.(1)(a) If copies of documents relied on to establish the various General Duty Clause elements cannot be obtained before issuing the citation, these documents shall be accurately quoted and identified in the file so they can be obtained later if necessary.

A.2.f.(1)(b) If experts are needed to establish any elements of the violation, the experts shall be consulted before the citation is issued and their opinions noted in the file. The file shall also contain their addresses and telephone numbers.

A.2.f.(1)(c) The file shall contain a statement that a search has been made of the standards and that no standard applies to the cited condition.

A.2.f.(2) Pre-Citation Review.

The Supervisor shall ensure that all proposed General Duty Clause citations undergo pre-citation review as follows:

A.2.f.(2)(a) The Director shall be consulted prior to the issuance of all General Duty Clause citations where such consultation is required by the procedures in the paragraphs under A.2. or where complex issues or exceptions to those procedures are involved. The Director shall ensure that such General Duty Clause citations are issued only in appropriate circumstances after consultation with the General Counsel and, when appropriate, with the Secretary.

A.2.f.(2)(b) If a standard does not apply and all criteria for issuing a General Duty Clause citation are not met but the Program Manager determines that the hazard warrants some type of notification, a letter shall be sent to the employer and the employee representative describing the hazard and suggesting corrective action.

A.2.g. Reporting Hazards Not Covered by a Standard.

The supervisor shall evaluate all alleged general duty clause violations to determine whether they should be referred to the KY OSH Regulations Development and Interpretations office for the development of new or revised standards.

A.3. Employee Exposure.

A hazardous condition which apparently violates a KY OSH Program standard or the general duty clause shall be cited only when employee exposure can be documented and substantiated.

A.3.(a) Definition of Employee.

Whether or not exposed persons are employees of an employer depends on several factors, the most important of which is who controls the manner in which the employees perform their assigned work. The question of who pays these employees may not be the determining factor. Determining the employer of an exposed person may be a very complex question, in which case the Director shall seek the advice of the General Counsel.

A.3.(b) Observed Exposure.

Employee exposure is established if the CSHO witnesses, observes, or monitors exposure of an employee to the hazardous or suspected hazardous condition. Although the use of adequate personal protective equipment does not alter the external conditions of employee exposure, such exposure may be cited only where the standard requires engineering, administrative (including work practice) controls.

A.3.(c) Unobserved Exposure.

Where employee exposure is not observed, witnessed, or monitored by the CSHO, employee exposure is established if it is determined through witness statements or other evidence that exposure to a hazardous condition has occurred or continues to occur.

A.3.(c)(1) Past Exposure.

In fatality/catastrophe (or other “accident”) investigations, employee exposure is established if the CSHO determines, through written statements or other evidence, that exposure to a hazardous condition occurred at the time of the accident. In other circumstances where the CSHO determines that exposure to hazardous conditions has occurred in the past, such exposure may serve as the basis for a violation when:

A.3.(c)(1)(a) The hazardous condition continues to exist, or it is reasonably predictable that the same or similar condition could recur.

A.3.(c)(1)(b) It is reasonably predictable that employee exposure to a hazardous condition could recur when:

A.3.(c)(1)(b)(1) Employee exposure has occurred in the previous six(6) months;

A.3.(c)(1)(b)(2) The hazardous condition is an integral part of an employer’s recurring operations; and

A.3.(c)(1)(b)(3) The employer has not established a policy or program to ensure that exposure to the hazardous condition will not recur.

A.3.(c)(2) Potential Exposure.

The possibility that an employee could be exposed to a hazardous condition may be cited when the employee can be shown to have access to the hazard. Potential employee exposure could include one or more of the following:

A.3.(c)(2)(a) When a hazard has existed and could recur because of work patterns, circumstances, or anticipated work requirements and it is reasonably predictable that employee exposure could occur.

A.3.(c)(2)(b) When a safety or health hazard would pose a danger to employees simply by employee presence in the area and it is reasonably predictable that an employee could come into

the area during the course of the work, to rest or to eat at the job site, or to exit from the assigned workplace.

A.3.(c)(2)(c) When a safety or health hazard is associated with the use of unsafe machinery or equipment or arises from the presence of hazardous materials and it is reasonably predictable that an employee could use the equipment or be exposed to the hazardous materials in the course of work.

A.3.(c)(2)(d) If the investigation reveals an adequately enforced employer policy or program which could prevent employee exposure, including accidental exposure, to the hazardous condition, the CSHO would not ordinarily find it reasonably predictable that employee exposure could occur and would, therefore, not recommend issuing a citation in relation to the particular condition.

A.3.(d) Documenting Employee Exposure.

The CSHO shall fully document exposure for every apparent violation. This includes such items as:

A.3.(d)(1) Comments by the exposed employees, the employer (particularly the Immediate supervisor of the exposed employee), other witnesses (especially other employees or members of the exposed employee's family);

A.3.(d)(2) Signed statements;

A.3.(d)(3) Photographs and/or videotapes; and

A.3.(d)(4) Documents (e.g., autopsy reports, police reports, job specifications, etc.).

A.4. Regulatory Requirements.

Violations of 803 KAR 2:060 and 803 KAR 2:180 are documented and cited when the employer does not comply with the posting requirements, the record keeping requirements, and the reporting requirements of the regulations contained in these subparts. (See Chapter VI, B.16.)

Note: If the supervisor becomes aware of an incident required to be reported under 803 KAR 2:180 through some means other than an employer report prior to the elapse of the 48-hour reporting period and an inspection of the incident is made, a violation for failure to report does not exist.

A.5. Hazard Communication.

29 CFR 1910.1200 applies to manufactures and importers of hazardous chemicals even though they themselves may not have employees exposed. Consequently, any violations of that standard by manufacturers or importers shall be documented and cited, irrespective of employee exposure at the manufacturing or importing location. (See OSHA Instruction CPL 02-02-038D.)

B. Types of Violations.

B.1. Serious Violations.

KRS Chapter 338.991(11) provides "... a serious violation shall be deemed to exist in a place of employment if there is a substantial probability that death or serious physical harm could result from a condition which exists, or from one (1) or more practices, means, methods, operations, or processes which have been adopted or are in use, in such place of employment unless the employer did not, and could not with the exercise of reasonable diligence, know of the presence of the violation."

B.1.(a) The CSHO shall take four steps to make the determination that a violation is serious. The first three steps determine whether there is a substantial probability that death or serious physical harm could result from an accident or exposure relating to the violated condition. (The probability that an accident or illness will occur is not to be considered in determining whether a violation is serious). The fourth step determines whether the employer knew or could have known of the violation.

B.1.(a)(1) The violation classification need not be completed for each instance; only once for each full item, or, if items are grouped, once for the group.

B.1.(a)(2) If the full item consists of multiple instances or grouped items, the classification shall be based on the most serious item. (See Chapter VI, B.9.).

B.1.(b) The four (4) step analysis as outlined below is necessary to make the determination that an apparent violation is serious. Apparent violations of the general duty clause shall also be evaluated on the basis of these steps to ensure that they represent serious violations. The four elements the CSHO shall consider are as follows:

B.1.(b)(1) Step 1.

The type of accident or health hazard exposure which the violated standard or the general duty clause is designed to prevent.

B.1.(b)(1)(a) The CSHO need not establish the exact way in which an accident, or health hazard exposure would occur. The exposure or potential exposure of an employee is sufficient to establish that an accident or health hazard exposure could occur. However, the CSHO shall note the facts which could affect the severity of the injury or illness resulting from the accident or health hazard exposure.

B.1.(b)(1)(b) If more than one type of accident or health hazard exposure exists which the standard is designed to prevent, the CSHO shall determine which type could reasonably be predicted to result in the most severe injury or illness and shall base the classification of the violation on that determination.



B.1.(b)(1)(c) The following are examples of a determination of the type of accident or health hazard exposure which a violated standard is designed to prevent:

B.1.(b)(1)(c)(1) Employees are observed on a walking/working surface with an unprotected side or edge six (6) feet above the ground in apparent violation of 29 CFR 1926.501(b)(1). This regulation requires each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge which is six (6) feet (1.8 m) or more above a lower level to be protected from falling by the use of guardrail systems, safety net systems, or personal fall arrest systems. The type of accident which the violated standard is designed to prevent involves an employee falling six (6) feet (1.8 m) or more to lower level below.

B.1.(b)(1)(c)(2) Employees are observed working in an area in which debris is located in apparent violation of 29 CFR 1915.81(c)(2). The type of accident which the violated standard is designed to prevent involves an employee tripping on debris.

B.1.(b)(1)(c)(3) An eight (8) hour time-weighted average sample reveals regular, ongoing employee overexposure to beryllium at  $4\mu\text{g}/\text{m}^3$  in apparent violation of 29 CFR 1910.1000(b)(1). This is  $2\mu\text{g}/\text{m}^3$  above the PEL.

B.1.(b)(1)(c)(4) An eight (8) hour time-weighted average sample reveals regular, ongoing employee overexposure to acetic acid at 20 ppm in violation of 29 CFR 1910.1000(a)(2). This is ten (10) ppm above the PEL.

B.1.(b)(2) Step 2.

The type of injury or illness which could reasonably be expected to result from the type of accident or health hazard exposure identified in Step 1.

B.1.(b)(2)(a) In making this determination, the CSHO shall consider all factors which would affect the severity of the injury or illness which could reasonably be predicted to result from an accident or health hazard exposure. The CSHO shall not give consideration at this point to factors which relate to the probability that an injury or illness will occur. The following are examples of a determination of the types of injuries that could reasonably be predicted to result from an accident:

B.1.(b)(2)(a)(1) If an employee falls from the edge of an open-sided floor thirty (30) feet to the ground below, that employee could break bones, suffer a concussion, or experience other more serious injuries.

B.1.(b)(2)(a)(2) If an employee trips on debris, that employee could experience abrasions or bruises, but it is only marginally predictable that the employee could suffer a substantial impairment of a bodily function. If, however, the area were littered with broken glass or other sharp objects, it would be reasonable to predict that an employee who tripped on debris could suffer a deep cut that could require suturing.

B.1.(b)(2)(b) For conditions involving exposure to air contaminants or harmful physical agents, the CSHO shall consider the concentration levels of the contaminant or physical agent in determining the types of illness which could reasonably result from the condition. The “Chemical Sampling Information” page at [www.osha.gov](http://www.osha.gov) shall be used to determine toxicological properties of substances listed as well as a Health Code Number. A preliminary violation classification shall be assigned in accordance with the instructions given in C.6.a. of this section.

B.1.(b)(2)(c) In order to support a preliminary classification of serious, KY OSH Program must establish a prima facie case that exposure at the sampled level would, if representative of conditions to which employees are normally exposed, lead to illness. Thus, the CSHO must make every reasonable attempt to show that the sampled exposure is in fact representative of employee exposure under normal working conditions. The CSHO shall, therefore, identify and record all available evidence that indicates the frequency and duration of employee exposure. Such evidence would include:

B.1.(b)(2)(c)(1) The nature of the operation form which the exposure results.

B.1.(b)(2)(c)(2) Whether the exposure is regular and on-going or if limited frequency and duration.

B.1.(b)(2)(c)(3) How long employees have worked at the operation in the past.

B.1.(b)(2)(c)(4) Whether employees are performing functions which can be expected to continue.

B.1.(b)(2)(c)(5) Whether work practices, engineering controls, production levels and other operating parameters are typical of normal operations.

B.1.(b)(2)(d) Where such evidence is difficult to obtain or where it is inconclusive, the CSHO shall estimate the frequency and duration from the evidence available. In general, if the evidence tends to indicate that it is reasonable to predict that regular, ongoing exposure could occur, the CSHO shall presume such exposure in determining the types of illness that could result from the violated condition. The following are examples of determination of types of illnesses that could reasonably result from a health hazard exposure:

B.1.(b)(2)(d)(1) If an employee is exposed regularly and continually to beryllium at  $4\mu\text{g}/\text{m}^3$ , it is reasonable to predict that berylliosis or cancer could result.

B.1.(b)(2)(d)(2) If an employee is exposed regularly and continually to acetic acid at 20 ppm, it is reasonable to predict that the illness which could result, (e.g., irritation to the nose, eyes, throat, or skin) would not involve serious physical harm.

B.1.(b)(3) Step 3.

Whether the types of injury or illness identified in Step 2 could include death or a form of serious physical harm.

B.1.(b)(3)(a) In making this determination, the CSHO shall utilize the following definition of “serious physical harm”:

B.1.(b)(3)(a)(1) Impairment of the body in which part of the body is made functionally useless or is substantially reduced in efficiency on or off the job. Such impairment may be permanent or temporary, chronic or acute. Injuries involving such impairment would usually require treatment by a medical doctor. Examples of injuries that constitute such harm include:

B.1.(b)(3)(a)(1)(a) Amputation (loss of all or part of a bodily appendage which includes the loss of bone).

B.1.(b)(3)(a)(1)(b) Concussion.

B.1.(b)(3)(a)(1)(c) Crushing (internal, even though skin surface may be intact).

B.1.(b)(3)(a)(1)(d) Fracture, simple or compound.

B.1.(b)(3)(a)(1)(e) Burn or scald, including electric and chemical burns.

B.1.(b)(3)(a)(1)(f) Cut, laceration, or puncture involving significant bleeding and/or requiring suturing.

B.1.(b)(3)(a)(2) Illnesses that could shorten life or significantly reduce physical or mental efficiency by inhibiting the normal function of a part of the body. Some examples of such illnesses include cancer, silicosis, asbestosis, byssinosis, hearing impairment, central nervous system impairment and visual impairment. Examples of illnesses that constitute serious physical harm include:

B.1.(b)(3)(a)(2)(a) Cancer.

B.1.(b)(3)(a)(2)(b) Poisoning (resulting from the inhalation, ingestion or skin absorption of a toxic substance which adversely affects a bodily system).

B.1.(b)(3)(a)(2)(c) Lung diseases, such as asbestosis, silicosis, anthracosis.

B.1.(b)(3)(a)(2)(d) Hearing loss.

B.1.(b)(3)(b) The following are examples of determinations of whether the types of injury or illnesses which could reasonably result from an accident or health hazard exposure could include death or serious physical harm:

B.1.(b)(3)(b)(1) If an employee, upon falling six (6) feet to the ground, suffers broken bones or a concussion, that employee would experience substantial impairment of the usefulness of an part of the body and would require treatment by a medical doctor. This injury would constitute serious physical harm.

B.1.(b)(3)(b)(2) If an employee, tripping on debris, suffers a bruise or abrasion, that employee would not experience substantial reduction of the usefulness of a part of the body nor would that employee require treatment by a medical doctor. This injury would not be serious. However, if the employee would most likely suffer a deep cut of the hand, the use of the hand would be substantially reduced and would require suturing by a medical doctor. This injury would then be serious.

B.1.(b)(3)(b)(3) If an employee, following exposure to beryllium at  $4\mu\text{g}/\text{m}^3$ , develops berylliosis or cancer, life would be shortened and breathing capacity would be significantly reduced. The illness would constitute serious physical harm.

B.1.(b)(3)(b)(4) If an employee is exposed regularly and continually to acetic acid at twenty (20) ppm, the irritation that would result from this exposure would not normally be considered to constitute serious physical harm.

B.1.(b)(4) Step 4.

Whether the employer knew, or with the exercise of reasonable diligence, could have known of the presence of the hazardous condition.

B.1.(b)(4)(a) The knowledge requirement is met if it is determined that the employer actually knew of the hazardous condition which constituted the apparent violation.

B.1.(b)(4)(a)(1) In this regard, the supervisor represents the employer and a supervisor's knowledge of the hazardous condition amounts to employer knowledge. The CSHO shall record any evidence which establishes that the employer knew of the hazardous condition on the appropriate worksheet.

B.1.(b)(4)(a)(2) In cases where the employer may contend that the supervisor's own conduct constituted an isolated event of employee misconduct, the CSHO shall attempt to determine the extent to which the supervisor was trained and supervised so as to prevent such conduct, and how the employer enforces the rule.

B.1.(b)(4)(b) If, after reasonable attempts to do so, it cannot be determined that the employer has actual knowledge of the hazardous condition, the knowledge requirement is met if the CSHO is satisfied that the employer could have known through the exercise of reasonable diligence. As a general rule, if the CSHO was able to discover a hazardous condition, it can be presumed that the employer could have discovered that same condition through the exercise of reasonable diligence. The CSHO shall record any evidence that substantiates the employer could have

known of the hazardous condition with the exercise of reasonable diligence on the appropriate worksheet.

**B.2. Other-Than- Serious Violations.**

This type of violation shall be cited in situations where the accident or illness that would be most likely to result from a hazardous condition would probably not cause death or serious physical harm but would have a direct and immediate relationship to the safety and health of employees.

**B.3. Willful Violations.**

The following definitions and procedures apply whenever the CSHO suspects that a willful violation may exist:

B.3.(a) A willful violation exists under the Law where the evidence shows either an intentional violation of the law or plain indifference to its requirements.

B.3.(a)(1) The employer committed an intentional and knowing violation if:

B.3.(a)(1)(a) An employer representative was aware of the requirements of the law, or the existence of an applicable standard or regulation, and was also aware of a condition or practice in violation of those requirements, or

B.3.(a)(1)(b) An employer representative was not aware of the requirements of the law or standards, but was aware of a comparable legal requirement (e.g., state or local law) and was also aware of a condition or practice in violation of that requirement.

B.3.(a)(2) The employer committed a violation with plain indifference to the law where:

B.3.(a)(2)(a) Higher management officials were aware of an KY OSH Program requirement applicable to the company's business but made little or no effort to communicate the requirement to lower level supervisors or employees, or

B.3.(a)(2)(b) Company officials were aware of a continuing compliance problem but made little or no effort to avoid violations, or

Example: Repeated issuance of citations addressing the same or similar conditions.

B.3.(a)(2)(c) An employer representative was not aware of any legal requirement, but was aware that a condition or practice was hazardous to the safety or health of employees and made little or no effort to determine the extent of the problem or to take the corrective action. Knowledge of a hazard may be gained from such means as insurance company reports, safety committee or other internal reports, the occurrence of illnesses or injuries, media coverage, or, in some cases, complaints of employees or their representative, or

B.3.(a)(2)(d) Finally, in particularly flagrant situations, willfulness can be found despite lack of knowledge of either a legal requirement or the existence of a hazard if the circumstances show that the employer would have placed no importance on such knowledge even if he or she had possessed it.

B.3.(b) It is not necessary that the violation be committed with a bad purpose or an evil intent to be deemed “willful”. It is sufficient that the violation was deliberate, voluntary or intentional as distinguished from inadvertent, accidental or ordinarily negligent.

B.3.(c) The CSHO shall carefully develop a record on the KY OSH-1B all evidence available that indicates employer awareness of the disregard for statutory obligations or of the hazardous conditions. Willfulness could exist if an employer is advised by employees or employee representatives regarding an alleged hazardous condition and the employer does not make a reasonable effort to verify and correct the condition. Additional factors which can influence a decision as to whether violations are willful include:

B.3.(c)(1) The nature of the employer’s business and the knowledge regarding safety and health matters which could reasonably be expected in the industry.

B.3.(c)(2) The precautions taken by the employer to limit the hazardous conditions.

B.3.(c)(3) The employer’s awareness of the Law and of the responsibility to provide safe and healthful working conditions.

B.3.(c)(4) Whether similar violations and/or hazardous conditions have been brought to the attention of the employer.

B.3.(c)(5) Whether the nature and extent of the violations disclose a purposeful disregard of the employer’s responsibility under the Law.

B.3.(d) The determination of whether to issue a citation for a willful or repeated violation will frequently raise difficult issues of law and policy and will require the evaluation of complex factual situations. Accordingly, a citation for a willful violation shall not be issued without consultation with the Secretary, who shall, as appropriate, discuss the matter with the General Counsel.

#### B.4. Criminal/Willful Violations.

The Director, in consultation with the General Counsel and with the approval of the Commissioner, may refer cases to the Kentucky Attorney General for possible criminal prosecution.

**B.5. Repeated Violations.**

An employer may be cited for a repeated violation if that employer has been cited previously for a substantially similar condition and the citation has become a final order. 803 KAR 2:060 Section 1(4) states:

“‘Final order date’ means:

(a) For an uncontested citation item, the 15th working day after the employer’s receipt of the citation;

(b) For a contested citation item:

1. The 30th day after the date on which a decision or order of a commission hearing officer has been docketed with the commission, unless a member of the commission has directed review; or
2. Where review has been directed, the 30th day after the date on which the commission issues its decision or order disposing of all or pertinent part of the case; or
3. The date on which a appeals court issues a decision affirming the violation in a case in which a final order KOSHRC has been stayed.”

**B.5.(a) Identical Standard.**

Generally, similar conditions can be demonstrated by showing that in both situations the identical standard was violated.

Example: Previously a citation was issued for a violation of 29 CFR 1910.132(a) for not requiring the use of safety toe footwear for employees. A recent inspection of the same establishment revealed a violation of 29 CFR 1910.132(a) for not requiring the use of head protection (hardhats). Although the same standard was involved, the hazardous conditions found were not substantially similar and therefore a repeated violation would not be appropriate.

**B.5.(b) Different Standards.**

In some circumstances, similar conditions can be demonstrated when different standards are violated.

Example: A citation was previously issued for a violation of 29 CFR 1910.28(d)(7) for not installing standard guardrails on a tubular welded frame scaffold platform. A recent inspection of the same establishment reveals a violation of 29 CFR 1910.28(c)(14) for not installing guardrails on a tube and coupler scaffold platform. Although there are different standards involved, the hazardous conditions found were substantially similar and therefore a repeated violation would be appropriate.

**B.5.(c) Geographical Limitations.**

For purposes of determining whether a violation is repeated, the following criteria shall apply:

**B.5.(c)(1) High Gravity Serious Violations.**

When high gravity serious violations are to be cited, the Director shall obtain a history of citations previously issued to this employer at all of his identified establishments within the same two (2) digit SIC Code or three (3) digit North American Industry Classification System (NAICS) code. If these violations have been previously cited within the time limitations described in B.5.d. and have become a final order of the Review Commission, a repeated citation shall be issued. Under special circumstances, the Director, in consultation with the General Counsel, may also issue citations for repeated violations without regard for the SIC Code.

**B.5.(c)(2) Violations of Lesser Gravity.**

To determine whether a violation of lesser gravity than high gravity serious may be classified as repeated, the following criteria regarding geographical limitations shall apply:

**B.5.(c)(2)(a) Fixed Establishment.**

A fixed establishment is interpreted to mean “a single physical location where business is conducted or where services or industrial operations are performed”, as defined in 803 KAR 2:060. For purposes of considering whether a violation is repeated, citations issued to employers having fixed establishments (e.g., factories, terminals, stores) shall be limited to the cited establishment.

Example: A multi-establishment employer would not be cited for a repeated violation if the same violation recurred at a plant or business location other than the one previously cited.

**B.5.(c)(2)(b) Non-Fixed Establishment.**

A non-fixed establishment (e.g., construction sites, oil and gas drilling sites) is interpreted to mean “all geographical sites or locations within the state”. For employers engaged in businesses having no fixed establishments, repeated violations will be alleged based on prior violations occurring anywhere within the state.

**B.5.(c)(3) Long-Shoring Establishment.**

A long-shoring establishment will encompass all long-shoring activities of a single stevedore within any single port area. Long-shoring employers are subject to repeated violation citations based on prior violations occurring anywhere.

**B.5.(c)(4) Other Maritime Establishments.**

Other maritime employers covered by the KY OSH Program standards (e.g., shipbuilding, ship repairing) are generally fixed establishments as defined in (a) above.



**B.5.(d) Time Limitations.**

Although there are no statutory limitations upon the length of time that a citation may be served as a basis for a repeated violation, the following policy shall be used in order to ensure uniformity.

B.5.(d)(1) A citation will be issued as a repeated violation if:

B.5.(d)(1)(a) The citation is issued within five (5) years of the final order of the previous citation, or

B.5.(d)(1)(b) The citation is issued within five (5) years of the final abatement date of that citation, whichever is later.

B.5.(d)(2) When a violation is found during an inspection and a repeated citation has been issued for a substantially similar condition which meets the above time limitations, the violation may be classified as a second instance repeated violation with a corresponding increase in penalty (See Chapter VI, B.14.b.).

B.5.(d)(3) For any further repetition, the Secretary shall be consulted for guidance.

**B.5.(e) Repeated vs. Willful.**

Repeated violations differ from willful violations in that they may result from an inadvertent, accidental or ordinarily negligent act. Where a repeated violation may also meet the criteria for willful but not clearly so, a citation for a repeated violation shall normally be issued.

**B.5.(f) Repeated vs. Failure to Abate.**

A failure to abate situation exists when an item of equipment or condition previously cited has never been brought into compliance and is noted at a later inspection. If, however, the violation was not continuous (i.e., if it had been corrected and then reoccurred), the subsequent occurrence is a repeated violation.

**B.5.(g) Supervisor Responsibilities.**

After the CSHO makes the initial recommendation that the violation be cited as “repeated”, the Supervisor shall:

B.5.(g)(1) Ensure that the violation meets the criteria outlined in the preceding subparagraphs of this section.

B.5.(g)(2) Ensure that the case file includes a copy of the prior violation citation which serves as the basis for the repeated citation. If the prior violation citation is not available, the basis for the repeated citation shall, nevertheless, be adequately documented in the case file.

B.5.(g)(3) In questionable circumstances when it is not clear that the violation meets the criteria outlined in this section, consult with the Director before issuing a repeated citation.

B.5.(g)(4) If a repeated citation is issued, ensure that the cited employer is fully informed of the previous violations serving as a basis for the repeated citation, either by telephone or by notation in the AVD portion of the citation, using the following or similar language:

THE (COMPANY NAME) WAS PREVIOUSLY CITED FOR A VIOLATION OF THIS OCCUPATIONAL SAFETY AND HEALTH STANDARD OR ITS EQUIVALENT STANDARD (NAME PREVIOUSLY CITED STANDARD) WHICH WAS CONTAINED IN KY OSH PROGRAM INSPECTION NUMBER (CITATION NUMBER), ITEM NUMBER, ISSUED ON (DATE).

B.6. De Minimis Violations.

De minimis violations are violations of standards which have no direct or immediate relationship to safety or health. Whenever de minimis conditions are found during an inspection, they shall be documented in the same way as any other violation but shall not be included on the citation.

B.6.(a) Explanation.

The criteria for finding a de minimis violation are as follows:

B.6.(a)(1) An employer complies with the clear intent of the standard but deviates from its particular requirements in a manner that has no direct or immediate relationship to employee safety or health. These deviations may involve distance specifications, construction material requirements, use of incorrect color, minor variations from record keeping, testing, or inspection regulations, or the like.

Example 1: 29 CFR 1910.27(b)(1)(ii) allows twelve (12) inches as the maximum distance between ladder rungs. Where the rungs are 13 inches apart, the condition is de minimis.

Example 2: 29 CFR 1910.28(a)(3) requires guarding on all open sides of scaffold. Where employees are tied off with safety belts in lieu of guarding often the intent of the standard will be met, and the absence of guarding may be de minimis.

Example 3: 29 CFR 1910.217(e)(1)(ii) requires that mechanical power presses be inspected and tested at least weekly. If the machinery is seldom used, inspection and testing prior to each use is adequate to meet the intent of the standard.

B.6.(a)(2) An employer complies with a written KY OSH Program Instruction.

B.6.(a)(3) An employer's workplace is at the "state of the art" which is technically beyond the requirements of the applicable standard and provides equivalent or more effective employee safety and health protection.

B.6.(b) Professional Judgment.

Maximum professional discretion must be exercised in determining the point at which non-compliance with a standard constitutes a de minimis violation.

B.6.(c) Supervisor Responsibilities.

Supervisors shall ensure that the de minimis violation meets the criteria set out in B.6.a.

C. Health Standard Violations.

C.1. General.

The classification of health violations involves the exercise of maximum professional judgment. All relevant factors must be carefully considered when making classification decisions.

C.2. Citation of Ventilation Standards.

In cases where a citation of a ventilation standard may be appropriate, consideration shall be given to standards intended to control exposure to recognized hazardous levels of air contaminants, to prevent fire or explosions, or to regulate operations which may involve confined space or specific hazardous conditions. In applying these standards, the following guidelines shall be observed:

C.2.(a) Health-Related Ventilation Standards.

An employer is considered in compliance with a health-related airflow ventilation standard when the employee exposure does not exceed appropriate airborne contaminant standards; e.g., the PELs prescribed in 29 CFR 1910.1000.

C.2.(a)(1) Where an over-exposure to an airborne contaminant is detected, the appropriate air contaminant engineering control requirement shall be cited; e.g., 29 CFR 1910.1000(e). In no case shall citations of this standard be issued for the purpose of requiring specific volumes of air to ventilate such exposures.

C.2.(a)(2) Other requirements contained in health related ventilation standards shall be evaluated without regard to the concentration of airborne contaminants. Where a specific standard has been violated and an actual or potential hazard has been documented, a citation shall be issued.

C.2.(b) Fire and Explosion Related Ventilation Standards.

Although they are not technically health violations, the following guidelines shall be observed when citing fire and explosion related ventilation standards:

C.2.(b)(1) Adequate Ventilation.

In the application of fire and explosion related ventilation standards, the KY OSH Program considers that an operation has adequate ventilation when both of the following criteria are met:

C.2.(b)(1)(a) The requirement of the specific standard has been met.

C.2.(b)(1)(b) The concentration of flammable vapors is 25 percent or less of the lower explosive limit (LEL).

Exception: Certain standards specify violations when ten (10) percent of the LEL is exceeded. These standards are found in maritime and construction exposures.

C.2.(b)(2) Citation Policy.

If 25% (10% when specified for maritime or construction operations) of the LEL has been exceeded and:

C.2.(b)(2)(a) The standard requirements have not been met, the standard violation normally shall be cited as serious.

C.2.(b)(2)(b) There is no applicable specific ventilation standard, the General Duty Clause shall be cited in accordance with the guidelines given in A.2. of this chapter.

C.2.(c) Special Conditions Ventilation Standards.

The primary hazards in this category are those resulting from confined space operations and welding.

C.2.(c)(1) Over exposure need not be shown to cite ventilation requirements found in the standards themselves.

C.2.(c)(2) Other hazards associated with confined space operations, such as potential oxygen deficiency or toxic overexposure, must be adequately documented before a citation may be issued.

C.3. Violations of the Noise Standard.

C.3.(a) A citation shall be issued when an employee's exposure exceeds the limits specified in Table G-16 in 29 CFR 1910.95 or exceeds 140 dB peak sound pressure level for impulse noise. Instrument accuracy (i.e., +/- 2 dB) shall be applied to the measurements.

C.3.(a)(1) Reserved.

C.3.(a)(2) When hearing protection is required but not used and employee exposure exceeds the limits of Table G-16, 29 CFR 1910.95(i)(2)(i) shall be cited and classified as serious whether or not the employer has instituted a hearing conservation program. 29 CFR 1910.95(a) shall no longer be cited except in the case of the oil and gas drilling industry.

Note: Citations of 29 CFR 1910.95(i)(2)(ii)(B) shall also be classified as serious.

C.3.(a)(3) If an employer has instituted a Hearing Conservation Program and a violation of the hearing conservation standard (other than 1910.95(i)(2)(i) or (i)(2)(ii)(b)) is found, a citation shall be issued if employee noise exposures equal or exceed an eight (8) hour time weighted average of 85 dBA. Such a citation shall be classified as other-than-serious.

C.3.(a)(4) If the employer has not instituted a Hearing Conservation Program and employee noise exposures equal or exceed an eight (8) hour time weighted average of 85 dBA, a citation for 29 CFR 1910.95(c) only shall be issued and classified as other-than-serious.

C.3.(a)(5) Violations of 29 CFR 1910.95(i)(2)(i) from the Hearing Conservation standard shall be grouped with violations of 29 CFR 1910.95(b)(1) and classified as serious when an employee is exposed to noise levels above the limits of Table G-16 and:

C.3.(a)(5)(a) Hearing protection is not utilized or is not adequate to prevent over exposure to an employee.

C.3.(a)(5)(b) There is evidence of hearing loss which could reasonably be considered:  
To be work related, and:

To have been preventable, at least to some degree, if the employer had been in compliance with the cited provisions.

C.3.(a)(6) 29 CFR 1910.95(b)(1) shall be classified as other-than-serious when:

C.3.(a)(6)(a) Effective hearing protection is provided and utilized and:

C.3.(a)(6)(b) All aspects of the Hearing Conservation Program are instituted.

C.3.(a)(7) When an employee is over exposed but effective hearing protection is being provided and used, an effective hearing conservation program has been implemented and no feasible engineering or administrative controls exist, a citation shall not be issued.

#### C.4. Violations of the Respirator Standard.

When considering a citation for respirator violations, the following guidelines shall be observed:

##### C.4.(a) In Situations Where Over Exposure Does Not Occur.

Where an over exposure has not been established:

C.4.(a)(1) But an improper type of respirator is being used (e.g., a dust respirator being used to reduce exposure to organic vapors), a citation under 29 CFR 1910.134(b)(2) shall be issued, provided the CSHO documents that an over exposure is possible.

C.4.(a)(2) And one or more of the other requirements of 29 CFR 1910.134 is not being met; e.g., and unapproved respirator is being used to reduce exposure to toxic dusts, generally a de minimis violation shall be recorded in accordance with KY OSH Program procedures. (Note that this policy does not include emergency use respirators.) The CSHO shall advise the employer of the elements of a good respirator program as required under 29 CFR 1910.134.

C.4.(a)(3) In exceptional circumstances a citation may be warranted if an adverse health condition due to the respirator itself could be supported and documented. Examples may include a dirty respirator that is causing dermatitis, a worker's health being jeopardized by wearing a respirator due to an inadequately evaluated medical condition or a significant ingestion hazard created by an improperly cleaned respirator.

C.4.(b) In Situations Where Over Exposure Does Occur.

In cases where an over exposure to an air contaminant has been established, the following principles apply to citations of 29 CFR 1910.134:

C.4.(b)(1) 29 CFR section requiring employers to provide respirators "...when such equipment is necessary to protect the health of the employee" and requiring the establishment and maintenance of a respiratory protection program which meets the requirements outlined in 29 CFR 1910.134(b). Thus, if no respiratory program at all has been established, 1910.134(a)(2) alone shall be cited; if a program has been established and some, but not all, of the requirements under 1910.134(b) are being met, the specific standards under 1910.134(b) that are applicable shall be cited.

C.4.(b)(2) An acceptable respiratory protection program includes all of the elements of 29 CFR 1910.134; however, the standard is structured such that essentially the same requirement is often specified in more than one section. In these cases, the section that most adequately describes the violation shall be cited.

C.5. Violations of Air Contaminant Standards (29 CFR 1910.1000 Series).

The standard itself provides several requirements.

C.5.(a) 29 CFR 1910.1000(a) through (d) provide ceiling values and eight(8) hour time weighted averages (threshold limit values) applicable to employee exposure to air contaminants.

C.5.(b) 29 CFR 1910.1000(e) provides that to achieve compliance with those exposure limits, administrative or engineering controls shall first be identified and implemented to the extent feasible. When such controls do not achieve full compliance, protective equipment shall be used. Whenever respirators are used, their use shall comply with 29 CFR 1910.134.

C.5.(c) 29 CFR 1910.134(a) provides that when effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used. Their use shall comply with requirements contained in 29 CFR 1910.134 that provide for the type of respirator and the proper maintenance.

C.5.(d) The situation may exist where an employer must provide feasible engineering controls as well as feasible administrative controls (including work practice controls) and personnel protective equipment. 29 CFR 1910.1000(e) has been interpreted to allow employers to implement feasible engineering controls and/or administrative and work practice controls in any

combination the employer chooses provided the abatement means chosen eliminates the over exposure.

C.5.(e) Where engineering and/or administrative controls are feasible but do not or would not reduce the air contaminant levels below the applicable ceiling value or threshold limit value, the employer, nevertheless, must institute such controls. Only where the implementation of all feasible engineering and administrative controls fails to reduce the level of air contaminants below applicable levels will the use of personal protective equipment constitute satisfactory abatement. In such cases, usage of personal protective equipment shall be mandatory.

C.6. Classification of Violations of Air Contaminant Standards.

When it has been established that an employee is exposed to a toxic substance in excess of the PEL established by KY OSH Program standards (without regard to the use of respirator protection), a citation for exceeding the air contaminant standard shall be issued. The violation shall be classified as serious or other-than-serious on the basis of the requirements in the “Chemical Sampling Information” page at [www.osha.gov](http://www.osha.gov), and the use of respiratory protection at the time of the violation. Classification of violations is dependent upon the determination that the illness is reasonably predictable at that exposure level, whether the illness is serious or other-than-serious and that the employer knew or could have known through reasonable diligence that a hazardous condition existed.

C.6.(a) Principles of Classification.

Exposure to a substance shall be considered serious if the exposure could cause impairment to the body as described in B.1.b.(3).

C.6.(a)(1) In general, substances having a single health code of 13 or less shall be considered as serious at any level above the Permissible Exposure Limit (PEL). Substances in categories 6, 8 and 12, however, are not considered serious at levels where only mild, temporary effects would be expected to occur. (See the Appendix to this chapter.)

C.6.(a)(2) Substances causing irritation (i.e., categories 14 and 15) shall be considered other-than-serious up to levels at which “moderate” irritation could be expected.

C.6.(a)(3) For a substance (e.g., cyclohexanol), having multiple health codes covering both serious and other-than-serious effects, a classification of other-than-serious shall be applied up to the level at which a serious effect(s) could be expected to occur.

C.6.(a)(4) For a substance having an ACGIH Threshold Limit Value (TLV) or a NIOSH recommended value, but no KY OSH Program PEL, a citation for exposure in excess of the recommended value shall be considered under the General Duty Clause in accordance with the guidelines given in A.2.

C.6.(a)(5) If an employee is exposed to concentrations of a substance below the PEL, but in excess of a recommended value (e.g., ACGIH TLV or NIOSH recommended value), a citation

for inhalation cannot normally be issued. The CSHO shall advise the employer that a reduction of the PEL has been recommended.

C.6.(a)(6) For a substance having an eight(8) hour PEL with no ceiling PEL but which a ceiling ACGIH TLV or NIOSH ceiling value has been recommended, the case shall be referred to the Program Manager in accordance with A.2.d.(2) of this chapter. If no citation is to be issued, the CSHO shall, nevertheless, advise the employer that a ceiling value has been recommended.

C.6.(b) Effect of Respirator Protection Factors.

The CSHO shall consider protection factors for the type of respirator in use as well as the possibility of over exposure if the respirator fails. If protection factors are exceeded and if the potential for over exposure exists, a citation for failure to control excessive exposure shall be issued.

C.6.(c) Additive and Synergistic Effects.

Substances which have a known additive effect and, therefore, result in a greater probability/severity of risk when found in combination shall be evaluated using the formula found in 29 CFR 1910.1000(d)(2).

C.6.(c)(1) The use of this formula requires that the exposures have an additive effect on the same body organ or system. Caution must be used in applying the additive formula, and prior consultation with the Program Manager is required.

C.6.(c)(2) If the CSHO suspects that synergistic effects are possible, it shall be brought to the attention of the supervisor, who shall refer the question to the Program Manager. If it is decided that there is a synergistic effect of the substances found together, the violations shall be grouped, when appropriate, for purposes of increasing the violation classification severity and/or the penalty.

C.7. Guidelines for Issuing Citations of Air Contaminant Violations.

C.7.(a) Citation Guidelines

In cases where an overexposure to an OSHA Permissible Exposure Limit (PEL), (either an 8-hour time-weighted average, ceiling value, short term exposure limit or acceptable maximum peak) is exceeded, the following principles apply:

C.7.(a)(1) Violations for Exceeding an Exposure Limit

Where a PEL is exceeded for a substance listed in Table Z of 29 CFR 1910.1000 or Appendix A of 29 CFR 1926.55, the appropriate paragraph, 29 CFR 1910.1000(a) thru (d) or 29 CFR 1926.55(a), should normally be cited. For substance-specific standards, the appropriate paragraph for exceeding the PEL should normally be cited.

C.7.(a)(2) Exposures to levels of air contaminants which exceed ACGIH Threshold Limit Values (TLVs) or NIOSH recommended exposure limits (RELs), but which have no OSHA



PEL, and which are considered to be serious exposure hazards, should normally be considered violations of KRS 338.031(1)(a). Guidelines on citing KRS 338.031 are found in A.2 of this chapter.

C.7.(a)(2)(a) KRS 338.031(1)(a) should normally not be used to impose a stricter requirement than that required by the standard. For example, if the standard provides for a permissible exposure limit (PEL) of 5 ppm even if data establishes that a 3 ppm level is a recognized hazard, KRS 338.031(1)(a) shall normally not be cited to require the 3 ppm level be achieved unless the limits are based on different health effects. If the standard has only a time-weighted average permissible exposure level and the hazard involves exposure above a recognized ceiling level, the Director shall consult with General Counsel.

Note: An exception to this rule may apply if it can be documented that “an employer knows a particular safety or health standard is inadequate to protect his workers against the specific hazard it is intended to address.” Such cases shall be subject to pre-citation review.

C.7.(b) Engineering and Administrative Controls

An employer's failure to implement feasible engineering or work practice controls should normally be cited under an applicable provision of a substance-specific standard (i.e., 29 CFR 1910.1001(f) of the asbestos standard) or, for those substances listed in 29 CFR 1910.1000 or 29 CFR 1926.55, under 29 CFR 1910.1000(e) or 29 CFR 1926.55(b). The requirement to implement feasible engineering and administrative controls is in several substance-specific standards (i.e., 29 CFR 1910.1001(f) of the asbestos standard). These violations should normally be grouped with the overexposure. 29 CFR 1910.134 (a)(1) should normally not be cited along with 29 CFR 1910.1000(e) or 29 CFR 1926.55(b). 29 CFR 1910.134(a)(1) should normally not be cited when an employer fails to use engineering or work practice controls to reduce exposures to chemicals for which OSHA has not established permissible exposure limits. In appropriate circumstances, an employer's failure to use feasible engineering or work practice controls when there is no OSHA PEL may be citable under KRS 338.031(1)(a).

C.7.(c) The Requirement to Provide Respirators

Whether or not an employer has instituted required engineering or work practice controls, the employer's failure to provide respirators when employees are exposed to hazardous levels of air contaminants is citable under 29 CFR 1910.134. The requirement to provide respirators is found in several substance-specific standards (i.e., 29 CFR 1910.1025(e) and (f) of the lead standard). In cases involving those standards, where respirators have not been provided, the section of the substance-specific standard requiring respirators should normally be cited. If the substance is listed only in Table Z, the violation for not providing a respirator should normally be cited under 29 CFR 1910.134(a)(2). These violations also would normally be grouped with the overexposure.

C.7.(d) The employer must provide the correct respirator for the substance and level of exposure involved. If the employer provided the incorrect respirator, a citation should normally be issued

under 29 CFR 1910.134(d) for not providing an appropriate respirator, unless a substance specific standard is applicable.

C.8. Violations of the Hazard Communication Standard.

The Hazard Communication Standard (HCS) compliance directive (CPL) establishes policies and provides clarification to ensure uniform enforcement of the HCS. See the HCS CPL adopted by the KY OSH Program.

C.9. Citing Improper Personal Hygiene Practices (Absorption & Ingestion Hazards)

The following guidelines apply when citing personal hygiene violations:

C.9.(a) Ingestion Hazards.

A citation under 29 CFR 1910.141(g)(2) and (4) shall be issued where there is reasonable probability that, in areas where employees consume food or beverages (including drinking fountains), a significant quantity of a toxic material may be ingested and subsequently absorbed.

C.9.(a)(1) For citations under 29 CFR 1910.141(g)(2) or (4) wipe sampling results shall be adequately documented to establish a serious hazard.

C.9.(a)(2) Where, for any substance, a serious hazard is determined to exist due to the potential of ingestion or absorption of the substance for reasons other than the consumption of contaminated food or drink (e.g., smoking materials contaminated with the toxic substance), a serious citation shall be considered under the General Duty Clause.

C.9.(a)(3) Such citations do not depend on measurements of airborne concentrations.

C.9.(b) Absorption Hazards.

A citation for exposure to materials which can be absorbed through the skin or which can cause a skin effect (e.g., dermatitis) shall be issued where appropriate personal protective equipment is necessary but not worn. (See 29 CFR 1910.1000, Table Z-1, substances marked "skin.") The citation shall be issued under 29 CFR 1910.132(a) as either a serious or other-than-serious citation according to the hazard.

C.9.(b)(1) Such citations do not depend on measurements of airborne concentrations.

C.9.(b)(2) If a serious skin absorption or dermatitis hazard exists which cannot be eliminated with protective clothing, a General Duty Clause citation may be considered. Engineering or administrative (including work practice) controls shall be required in these cases to prevent the hazard.

C.9.(c) Wipe Sampling.

In general, wipe sampling (not air sampling) will be necessary to establish the presence of a toxic material posing a potential absorption or ingestion hazard. (See the OSHA Technical Manual for sampling procedures.)

C.9.(d) Issuing Citation.

There are two primary considerations when issuing a citation of an ingestion or absorption hazard, such as a citation for lack of protective clothing:

C.9.(d)(1) A health risk exists as demonstrated by one of the following:

C.9.(d)(1)(a) A potential for an illness, such as dermatitis, and/or

C.9.(d)(1)(b) The presence of a toxic material that can be ingested or absorbed through the skin or in some other manner. (See the Chemical Sampling Information page at [www.osha.gov](http://www.osha.gov).)

C.9.(d)(2) The potential that the toxic material can be ingested or absorbed, e.g., that it can be present on the skin of the employee, can be established by evaluating the conditions of use and determining the possibility that a health hazard exists.

Note: The condition of use can be documented by taking both qualitative and quantitative results of wipe sampling into consideration when evaluating the hazard.

C.9.(e) Supporting Citation.

Four primary considerations must be met to support a citation:

C.9.(e)(1) The potential for ingestion or absorption of the toxic material must exist.

C.9.(e)(2) The ingestion or absorption of the material must represent a health hazard.

C.9.(e)(3) The toxic substance must of such a nature and exist in such quantities as to pose a hazard. The substance must be present on surfaces which have hand contact (such as lunch tables, cigarettes, etc.) or on other surfaces which, if contaminated, present the potential for ingestion or absorption of the toxic material (e.g., a water fountain).

C.9.(e)(4) The protective clothing or other abatement means would be effective in eliminating or significantly reducing exposure.

C.9.(f) Biological Monitoring.

If the employer has been conducting biological monitoring, the CSHO shall evaluate the results of such testing. The results may assist in determining whether a significant quantity of the toxic material is being ingested or absorbed through the skin.

C.9.(g) Determination of Source.

Prior to the issuance of a citation, the CSHO shall carefully investigate the source or cause of the observed hazards to determine if some type of engineering, administrative or work practice control, or combination thereof, may be applied which would reduce employee exposure.

C.10. Classification of Violations for the New Health Standards.

In general, classification decisions regarding violations of the exposure limits of the new health standards shall be governed by the Chemical Information Manual.

## Appendix Definitions

The following information is provided to assist readers in understanding the meaning of terms used in this chapter. This information is subject to change and is not intended to be all-inclusive.

### Exposure Limits

**OSHA GENERAL INDUSTRY PEL:** OSHA Permissible Exposure Limit (PEL) for General Industry - Action Level, Excursion Limit (EL), 8-Hour Time Weighted Average (TWA), Short Term Exposure Limit (STEL), Ceiling, or Stayed. Includes all changes to 29 CFR 1910.1000 to end of 29 CFR Part 1910.

**OSHA CONSTRUCTION INDUSTRY PEL:** OSHA Permissible Exposure Limit (PEL) for the Construction Industry - Action Level, Excursion Limit (EL), 8-Hour Time Weighted Average (TWA), Short Term Exposure Limit (STEL), Ceiling, or Stayed. Includes all changes to 29 CFR 1926.55 to end of 29 CFR Part 1926.

**ACGIH TLV:** American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV). Includes Biological Exposure Indices (BEIs), Sensitization, and Skin notations.

**NIOSH REL:** National Institute for Occupational Safety and Health (NIOSH) Recommended Exposure Limit (REL).

**AIHA WEEL:** American Industrial Hygiene Association (AIHA) Workplace Environmental Exposure Limits (WEEL).

### Health Factors

**NTP:** Carcinogenic classification as listed in or prior to the National Toxicology Program's (NTP) Eleventh Annual Report on Carcinogens. Search NTP for updated information.

**KNOWN TO BE HUMAN CARCINOGEN (also known as HUMAN CARCINOGEN):** There is sufficient evidence of carcinogenicity from studies in humans\* which indicates a causal relationship between exposure to the agent, substance or mixture, and human cancer.

**REASONABLY ANTICIPATED TO BE A HUMAN CARCINOGEN (also know as SUSPECT HUMAN CARCINOGEN):** There is limited evidence of carcinogenicity from studies in humans\* which indicates that causal interpretation is credible but that alternative explanations, such as chance, bias, or confounding factors, could not adequately be excluded; or there is sufficient evidence of carcinogenicity from studies in experimental animals which indicates there is an increased incidence of malignant and/or a combination of malignant and benign tumors (1) in multiple species or at multiple tissue sites, or (2) by multiple routes of exposure, or (3) to an

unusual degree with regard to incidence, site, or type of tumor, or age at onset, or there is less than sufficient evidence of carcinogenicity in humans or laboratory animals; however, the agent, substance, or mixture belongs to a well-defined, structurally related class of substances whose members are listed in a previous Report on Carcinogens as either known to be a human carcinogen or reasonably anticipated to be a human carcinogen, or there is convincing relevant information that the agent acts through mechanisms indicating it would likely cause cancer in humans.

\*This evidence can include traditional cancer epidemiology studies, data from clinical studies, and/or data derived from the study of tissues or cells from humans exposed to the substance in question that can be useful for evaluating whether a relevant cancer mechanism is operating in people.

IARC: Carcinogenic classification as indicated by International Agency for Research on Cancer (IARC), IARC Monographs on the Evaluation of the Carcinogenic Risk to Humans. Data includes chemicals covered through Volume 88.

#### Group 1

The agent (mixture) is carcinogenic to humans.

The exposure circumstance entails exposures that are carcinogenic to humans.

#### Group 2

Group 2A: The agent (mixture) is probably carcinogenic to humans.

The exposure circumstance entails exposures that are probably carcinogenic to humans.

Group 2B: The agent (mixture) is possibly carcinogenic to humans.

The exposure circumstance entails exposures that are possibly carcinogenic to humans.

#### Group 3

The agent (mixture or exposure circumstance) is not classifiable as to its carcinogenicity to humans.

#### Group 4

The agent (mixture) is probably not carcinogenic to humans.

SYMPTOM(S): Potential symptoms as a result of inhalation, skin absorption, ingestion, or skin or eye contact. As listed in NIOSH Pocket Guide to Chemical Hazards (NIOSH No. 85-114), condensed from the NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards (NIOSH No. 81-123).