

## FEDERAL OSHA AND EPA RULEMAKING

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### Abstract

Some of the more significant EPA and OSHA regulatory activities are discussed: **EPA**- (1) the PM and ozone standards are under court review and EPA has the PM 2.5 monitors in place; and (2) the USDA, AAQTF has recommended a guide for voluntary compliance programs; **OSHA**- (1) the final ergonomics safety standard, published 11/14/00 (effective 1/16/01, with first compliance due 10/15/01), requires all employers with manufacturing and manual handling to have a program but agriculture employment is not covered; (2) the safety and health program rule, a high priority, is still under internal review at OSHA and could be proposed by 9/01 (agriculture is not expected to be covered at first); (3) Occupational Exposure to Crystalline Silica (about 20% of soil is crystalline silica and it is now considered a human carcinogen) is now scheduled to be proposed 9/01 (agriculture may not be covered); (4) Recording and Reporting Occupational Injuries and Illnesses, another high priority, was finalized 1/19/01 (effective 1/1/02); (5) Employer Payment for Personal Protective Equipment is scheduled for a final standard 4/01; (6) the Consultation Agreements final rule was published 10/26/00; and (7) Permissible Exposure Limits for Air Contaminants is scheduled to be proposed in 6/01 (it will contain an OSHA guide to risk assessment and not include hexane).

### Introduction

Last year (2000) was a very active year with many new standards being published before 1/20/01, so that they would be in place before the new administration came in. There are many uncertainties about 2001 with the new administration and new people in the key positions. In the Senate and the House there are significant changes with the various committees. There is one certainty and that is the career people at OSHA and EPA remain as do the legislative mandates of these regulatory agencies. So, regulatory activities will continue and it is expected that the OSHA ergonomics standard will remain among the top safety and health priorities for 2001.

Hopefully there will be less "command and control" specification type regulations and more voluntary guidelines and performance standards, based on sound science and economic and technological feasibility. This is clearly a direction OSHA has been going, which the business community has pressed OSHA for over the last decade, according to outgoing OSHA head Jeffress. Also hopefully OSHA and EPA will strive for cooperation rather than confrontation with industry. The future will be guided by how health and safety and environmentally responsible industries are.

### Regulatory Review Plan

On 1/20/01 (66 FR 7701) President Bush ordered a blanket 60-day freeze on federal regulations issued or proposed near the end of the previous administration to provide ample time for scrutiny by his administration. It is intended that these rules will not be issued "unless and until" an administration appointee has reviewed and approved the regulatory action. Delayed will be:

1. Rules not yet sent to the *Federal Register*.
2. Rules sent to the *Federal Register* that are awaiting publication.
3. Rules that were published before Jan. 20 by but have not taken effect. Their effective dates are postponed 60 days.

There are no new EPA air regulations affected that are of importance to the cotton industry. OSHA rules affected of importance to the cotton industry include: 1. Revision to the recordkeeping regulations (published 1/19/01); and 2. Amendment to the bloodborne pathogens standard for needlestick protection (published 1/18/01).

The ergonomics standard, adopted 11/14/00 with an effective date of 1/16/01 is unaffected by the regulatory freeze. However, Congress could review the rule under the Congressional Review Act and could vote to rescind it; additionally, the Bush administration has the option of reopening the rulemaking, which would be a long drawn out procedure, and developing compliance that is reasonable; and there are court actions underway (see later).

### EPA-Air Quality

EPA has authority over all regulations affecting environmental issues as well as chemicals used in agriculture and introduced into commerce. In 1990, Congress amended the Clean Air Act (CAA). The amended Act, among other things, set new requirements for federal operating permits (Title V), for attainment of particulate matter (PM) and ozone requirements (criteria pollutants), and for hazardous air pollutants (HAP). Cotton production and ginning are affected by these CAA requirements, which have caused confusion and problems as they are being developed and implemented.

### Particulate Matter (PM) and Ozone

In 1997, EPA promulgated tighter new standards for both PM and Ozone, which have the potential to affect cotton industry segments significantly. EPA added a PM 2.5 standard (for fine dust) to the existing PM 10 standard (coarse dust) and lowered the ozone standard [from 0.12 ppm 1 hr time weighted average (TWA) to 0.08 ppm 8 hr TWA]. As a result, many more areas of the U.S. will be nonattainment for PM and Ozone and there could be large economic effects on many industries, including production agriculture and agricultural processing. Presently for cotton, only areas in California and Arizona are non-attainment for PM and in California, Arizona and Tennessee for ozone. Under the new standards about 24 counties in nine states where cotton is grown and ginned could be nonattainment for PM 2.5 and about 66 counties in 14 states could be nonattainment for ozone. EPA is monitoring PM 2.5 levels in the US and is preliminarily finding many areas exceeding the limit, including areas in GA and CA.

The National Ambient Air Quality Standards (NAAQS) requires 3 consecutive years of complete annual data before designating whether an area is nonattainment or not. Implementation of control measures for nonattainment of PM standard will not occur until the 2006-08 time period because the full process calls for 3 years of data, and another year for EPA to determine nonattainment. After this there are 3 years for states to submit implementation plans on how they will clean up the air.

The D.C. Circuit court invalidated (5/99) the new PM and ozone NAAQSs and in late October '99, denied the EPA petition for a rehearing of the decision. In July '00 EPA appealed it to the Supreme Court; the S. Court heard the case on 11/6/00 and is expected to rule in early 2001 on whether EPA exceeded its authority when issuing the standards and whether EPA should have considered economic factor when setting the standards. The standards will either be reinstated or EPA will have to re-promulgate the PM and ozone standards according to some intelligible principle. Since this was considered one of the major accomplishments of EPA under Browner, the new administration could revise the standards before putting them into effect even if EPA prevails in the Supreme Court. Also EPA is expected to finish the required (every 5 years) review of these standards by July 2002, which could change the standards further, since EPA has more data to show

PM (2.5 and 10) causes respiratory health as well as cardiovascular problems.

The implementation of the regional haze regulation (which is essentially a PM 2.5 visibility standard that affect all states and was issued 5/99) is now aligned closely with the PM rule so state implementation plans (SIP) will be due three years after attainment designation occurs between 2003 and 2005.

#### **USDA Agricultural Air Task Force**

Efforts by the USDA Agricultural Air Quality Task Force (AAQTF; required by the 1996 FAIR Act and appointed by the Secretary of Agriculture to advise USDA on air quality issues) have lead to a Memorandum of Understanding (MOU) between USDA and EPA to help insure that the best available science is used by EPA in all air regulations that affect agriculture; recommendation on priorities and funding for air quality research; an incentive-based voluntary agriculture air quality compliance program that could be used by EPA to provide policy guidance to states for state implementation plans (SIP) for particulate matter (PM) and other regulated pollutants attributed to agricultural operations; and an ag burning policy. The recommendations from the AAQTF for voluntary compliance programs were submitted to Agriculture Secretary Glickman, who transmitted them to EPA head Browner. EPA published the AAQTF recommendations in the Federal Register for comment (65 FR 56308; 9/18/00) and announced informal public meetings (65 FR 57187; 9/21/00) to receive comments on the recommendations in Sep. '00 and is expected to issue policy guidance to the states. This should be very helpful to cotton areas in Maricopa County, Arizona and the San Joaquin Valley Air District, California who are developing SIPs for serious non-attainment of PM and should prevent "permit to farm" regulations for pollutants like PM. Dr. Phillip Wakelyn NCC, Dr. Calvin Parnell Texas A&M University, Kelley Green TX Cotton Ginners Association, Roger Isom CA Cotton Ginners Association, and Kevin Rogers AZ cotton producer are members of the 2001-02 AAQTF.

#### **OSHA General Information**

OSHA has authority over all standards affecting the workplace. Cotton production and ginning are covered by OSHA agriculture standards (29 CFR 1928); other cotton industry sections are covered by OSHA general industry standards (Table 1). The OSH Act [Section 5(a)(1)] requires that each employer shall maintain a safe and healthful workplace (so called "general duty clause"), i.e., a place of employment free from recognized hazards that are causing or are likely to cause death or serious physical harm to employers. OSHA can cite for alleged violation under this "general duty clause" if there is not a specific standard to cite. OSHA is increasingly using the "general duty clause" (1084 times in 2000) to cite for workplace violations (sometimes alleging industry practices for some industry voluntary actions as a basis for known risk) and bringing more criminal penalties. Record keeping, training, machine guarding, and hazard communication are the most cited standards (Table 2.). In addition, OSHA can refer a case to the Department of Justice to bring criminal penalties against an employer. Federal OSHA enforces all OSHA standards except where there is a state plan program. You should know whether your state is a "state plan" state (i.e., administers its own OSHA program) or is under Federal OSHA, since the 23 state plan states (Table 3) have different regulations than Federal OSHA – state standards only have to be "as effective as the Federal standards", but they can be more severe.

#### **OSHA Regulatory Activities**

For 2001, OSHA has a very active regulatory agenda (11/30/00; 65 FR 74107)(Table 4) that could impact all sectors of the cotton industry. The current OSHA regulatory activities include:

*Ergonomics (29 CFR 1910.900)*: OSHA published the ergonomics Advanced Notice of Proposed Rulemaking (ANPR) in 1992, the proposal (NPR) in Nov. 1999, and the final standard 11/14/00 (65 FR 68261). (The ergonomics standard is not affected by the Bush administration regulatory moratorium as discussed in the introduction.) The intent of the standard is to prevent musculoskeletal disorders (MSD), which are very broadly defined as disorder of muscles, nerves, tendons, ligaments, joints, cartilage, blood vessels, or spinal discs caused by exposure to following risk factors: repetition, force, awkward postures, contract stress, and vibration. The standard is triggered when a single person reports a musculoskeletal disorder (MSD) or MSD sign or symptom and employee's job has risk factors that exceed the standard's action trigger. The 610 page standard became effective Jan.16, 2001, with the first compliance obligations beginning on Oct.15, 2001, and there are a host of other effective dates for specific requirements. Employers are required to begin to distribute information on the rule to workers and begin receiving and responding to reports of injuries no later than 10/14/01.

The standard states that it applies to all general industry workers but specifically does not apply to employment covered by OSHA's agriculture standards in part 1928 [29 CFR 1910.900(a)]. Agriculture could be added later. It also should be remember that even if agriculture is not covered at this time that OSHA can cite agriculture industries for alleged ergonomic violations under the general duty clause [section 5(a)(1) of the OSH Act], which allows the agency to enforce for recognized hazards (e.g., office computer work) even if there is not a specific standard. Cotton gins have always been considered agriculture by OSHA and are excluded. However, the preamble to the standard, under "Industries and Jobs This Standard Covers" (65 FR 68283; 11/14/00), lists:

- Agricultural services
- Soil preparation and crop services, including crop planting, cultivating and protecting
- Crop harvesting
- Office workers employed by agricultural service establishments

This is contradictory and confusing and could indicate that custom farming services, e.g., custom harvesting, are covered. If these operations/industries are covered, they were not noticed for comment in the proposal, which is not legal. This is being challenged in the courts by the American Farm Bureau Federation and other farm groups.

Over the last 4 years, the cotton industry participated in OSHA stakeholder meetings on ergonomics for agriculture and general industry. In 2000 the National Cotton Council and the National Cotton Ginners Association testified at the ergonomics hearings and filed comments and post-hearing comments. OSHA was told by NCC and NCGA that they correctly excluded agriculture from the ergonomics standard and were given a definition of agriculture that should be excluded.

The final standard is significantly changed from the 11/99 proposed rule. Significant changes in the final safety standard (proposal had characterized rule as health standard) include: work restriction provisions for injured employees changed from 6 mo. to 90 days; provides two page checklist to identify risk factors that lead to MSD hazard; grandfather clause with fewer obligations. For further information about OSHA's ergonomics rule see **Appendix 1** of this paper and the OSHA web site [www.osha.gov](http://www.osha.gov).

The final safety standard has been challenged by several industry groups (including National Association of Manufacturers [NAM] and Chamber of Commerce) and several unions (including AFL-CIO and textile union). In seven Court of Appeals but will be heard in the DC Circuit. All appeals had to be filed by Jan. 4. Industry grounds for the suit include: science does not adequately support need for standard, standard too vague, and flawed economic analysis, while unions think standard is not severe enough, since it does not prevent injuries (i.e., not proactive) but is reactive to injuries and excludes agriculture, construction, and maritime employment. It also is likely that industry petitioners will seek judicial stay of the standard.

The courts are essentially the only remedy available now that the standard has been issued, since the standard was issued before efforts by the Congress to delay the standard were passed as part of FY'01 appropriations and the standard's effective date, 1/16/01, was before the new administration came in on Jan. 20. Congress will likely review the standard. It would be difficult to prevent the implementation of the standard because it would take a full rulemaking [see earlier under regulatory review]. The rule will have to be enforced through a yet-unwritten compliance directive, which will instruct agency inspectors on how to interpret and enforce the standard. Actions could be taken to ensure that this directive offers a balanced approach to enforcement. (Industry will pursue two tracks to try to derail the standard, the lawsuit and push for a joint resolution of disapproval under the Congressional Review Act.)

The California Occupational Safety and Health Standards Board adopted an ergonomics regulation, which became law 7/3/97. The measure applies to all California businesses and would be triggered when two workers performing identical tasks have been diagnosed with repetitive motion injuries (RMI) in a 12-month period. NC proposed an ergonomics standard in Nov. 1998. NC has adopted OSHA's standard verbatim while its standard (which covered agriculture) remains stalled in state court. The federal standard supersedes and is more severe than the CA or NC standards.

The American National Standards Institute (ANSI) has a draft ergonomics standards available for public review and comment: "Management of Work-Related Musculoskeletal Disorders" (Z-365). It is intended to serve as a voluntary guide for occupational safety and health professionals. This has importance because of Congressional review or litigation this could become a de facto standard.

The American Conference of Governmental Industrial Hygienists (ACGIH) Physical Agents Committee in 2000 recommended a TLV of 4 hours for "mono-task" jobs (defined as one in which a similar set of motions or exertions is performed repeatedly, e.g., assembly line work or using a keyboard and mouse) involving the hand, wrist, and forearm. Many states adopt ACGIH "voluntary consensus" standards.

Safety and Health Programs Rule (29 CFR 1900): This regulation, to promote a safe and healthful workplace and identify and control/eliminate hazards in the workplace, could also include medical surveillance and monitoring requirements. It was a top priority for OSHA in the last administration. A draft OSHA proposal released in Nov. 98 would require employers to ensure compliance with OSHA standards and the general duty clause of the OSH Act. The rule would cover general industry, but not agriculture to start with. If this regulation is promulgated, as in the draft proposals, OSHA essentially will not need any other regulations, depending on how it is enforced. Companies with existing programs may be grandfathered, so NCC is helping to develop draft guidelines that could be used by gins and cottonseed oil mills. A small business analysis was performed in late 1998, which indicated that OSHA has underestimated the cost of this regulation. The proposal is scheduled to be published 9/01. NCC participates in OSHA stakeholder meetings on this issue and is working with a large coalition on this rule, which could have far reaching effects on industry.

Recording and Reporting Occupational Injuries and Illnesses (29 CFR 1904 and 1952): OSHA's recordkeeping requirements, in place since 1971, are designed to help employers recognize workplace hazards and correct hazardous conditions by keeping track of work-related injuries and illnesses and their causes. OSHA's recordkeeping requirements provide the source data for the Bureau of Labor Statistics (BLS) Occupational Injury and Illness Survey, the primary source of statistical information concerning workplace injuries and illnesses. BLS collects the data and publishes the statistics, while OSHA interprets and enforces the regulation.

In Feb.'96 OSHA proposed revisions and on 1/19/01 (66 FR 5916) published the final revised rule addressing recording and reporting of occupational injuries and illnesses (Simplified Injury/Illness Recordkeeping Requirements), including the forms employers use to record those injuries and illnesses. This rule could be affected by the regulatory review moratorium. After three decades of what many employers considered complicated recordkeeping requirements with cumbersome forms and limited technological assistance, the new rule is intended to combine previous regulatory requirements and interpretations into one clear and precise document that will aid an employer's ability to increase workplace safety, according to OSHA. The revised rule is intended to produce better information about occupational injuries and illnesses while simplifying the overall recordkeeping system for employers. It is intended to improve injury and illness records/statistics; collect better information about the incidence of occupational injuries and illnesses on a national basis; promote improved employee awareness and involvement in the recording and reporting of job related injuries and illnesses by providing workers and their representatives access to the information on recordkeeping forms and increasing awareness of potential hazards in the workplace. It is intended to simplify recordkeeping for employers, and employers are given more flexibility in using computers and telecommunications technology to meet their recordkeeping requirements. The new rule also is intended to protect employees' privacy better; the former rule had no privacy protections covering the log used to record work-related injuries and illnesses.

Two sections of 1904 have already been revised earlier: Reporting fatalities and multiple hospitalization incidents to OSHA (1904.39, effective 5/2/94); and Annual OSHA injury and illness survey of ten or more employers (1904.41, effective 3/13/97). This final rule, which becomes effective 1/1/02, also revises 29 CFR 1952.4, the Injury and Illness Recording and Reporting Requirements for state plan states. OSHA is publishing the rule now to give employers ample time to learn the new requirements and to revise computer systems they may be using for recordkeeping. (During this transition period, employers must adhere to requirements of the original rule).

Like the former rule, employers with 10 or fewer employees are exempt from most requirements of the new rule, as are a number of industries classified as low-hazard-retail, service, finance, insurance and real estate sectors. The new rule updates the list of exempted industries to reflect recent industry data. (All employers covered by the Occupational Safety and Health Act must continue to report any workplace incident resulting in a fatality or the hospitalization of three or more employees).

The final revised rule also includes a provision for recording needlestick and sharps injuries that is consistent with recently-passed legislation and OSHA's amended standard (66 FR 53117; 1/18/01) requiring OSHA to revise its bloodborne pathogens standard to address such injuries. The recordkeeping rule also conforms with OSHA's ergonomics standard published 11/14/00. It simplifies the manner in which employers record musculoskeletal disorders (MSDs), replacing a cumbersome system in which MSDs were recorded using criteria different from those for other injuries or illnesses. The revised forms have a separate column for recording MSDs, which will improve the compilation of national data on these disorders.

One of the least understood concepts of recordkeeping has been restricted work; the new rule clarifies the definition of *restricted work or light duty* [29 CFR 1904.7(b)(4)(i)] and makes it easier to record those cases. *Work-related injuries* (29 CFR 1904.5) are also better defined to ensure the recording only of appropriate cases, while excluding cases clearly unrelated to work. An injury or illness must be considered “*work-related*” if an event or exposure in the work environment either caused or significantly aggravated a pre-existing injury or illness. Section 1904.5(b)(2) lists the exceptions that are not work-related and, therefore, not recordable (e.g., signs or symptoms surface at work but result solely from a non-work-related event or exposure outside the workplace).

OSHA says the rule is written in plain language, using a question and answer format. The regulation for the first time uses checklists and flowcharts to provide easier interpretations of recordkeeping requirements. Highlights of OSHA’s recordkeeping rule are in **Appendix 2**. For more detailed information on the final recordkeeping rule, view OSHA’s web site at: <http://www.osha-slc.gov/recordkeeping/index.html> and the 210 page standard in the Federal Register (66 FR 5916; 1/19/01).

*Consultation Agreements (29 CFR 1908)*: This rule proposed 7/2/99 and finalized 10/26/00 (65 FR 64282) amends the OSHA regulations for federally-funded onsite safety and health consultation visits to: provide for greater employee involvement in site visits; require that employees be informed of the results of these visits; provide for confidential treatment of information concerning workplace consultation visits; and update the procedures for conducting consultation visits. The rule became effective 12/26/00.

*Cotton Dust (29 CFR 1910.1043)*: On 12/7/00 OSHA announced an amendment to the cotton dust standard (direct final rule on washed cotton) after completing 2-year regulatory “lookback” review of the standard, which was required under section 610 of the Regulatory Flexibility Act (5 U.S.C. 601, 610) and Section 5 of Executive Order (EO) 12866. OSHA also announced the availability of its report on their review of the cotton dust standard and both the direct final rule (65 FR 76563) and the notice of availability of the report (65 FR 76667) were in the *Federal Register* 12/7/00. The review validated the standard’s effectiveness and continued significance and found that changes were not necessary other than the washed cotton amendment. The amendment was the result of the review, coupled with recommendations by the joint partnership of industry, union, and government put together by NCC. The amendment, which will add the batch method of washing cotton to other washing procedures already exempted from portions of the cotton dust standard, increases the dust standard’s flexibility. The final rule will be effective 4/6/01, unless significant adverse comments are received by 2/5/01. If OSHA receives significant adverse comments, the agency will proceed with normal rulemaking.

*Crystalline Silica*: Soil dust may represent as much as 20% crystalline silica. Crystalline silica was designated by the International Agency on Cancer Research (IARC) as a known human carcinogen in Nov.’96 and by the National Toxicology Program (NTP) as a human carcinogen in 1999. It can also cause respiratory disease and possibly other health risks. OSHA has a special emphasis program (SEP) on silica for silicosis and indicates that current standard is insufficient to protect against silicosis. OSHA is developing a comprehensive standard with a proposal due 9/01. Whether agriculture will be covered by this new standard is not known.

*Other*: A proposal for a limited update of the *permissible exposure limits (PELs) for air contaminants* is expected 6/01. It will cover 4 substances (carbon disulfide used in viscose manufacturing; glutaraldehyde; hydrazine; trimetallic anhydride) but will not include a lower level for hexane (used for oilseed extraction), which was in an earlier draft; also it is expected to outline how OSHA does risk assessment.

OSHA proposed a standard in 11/97 for *occupational exposure to tuberculosis*, which covers mainly health care workers; a final standard is expected in 4/01.

OSHA issued a final safety standard for *Powered Industrial Truck Operator Training* (covers forklift trucks) 12/1/98, which applies to general industry but not agriculture; and on 12/7/00 issued an updated compliance directive (CPL 2-1.28A). [See the OSHA website ([www.osha.gov](http://www.osha.gov))].

Recommendations to improve the *hazard communication* standard were submitted to OSHA by their general industry advisory committee; it is expected that OSHA will try to simplify and harmonize MSDSs but there is no timetable for action.

In late 1996, OSHA withdrew rulemakings for generic standards for exposure monitoring, medical surveillance, and motor vehicle safety and in late 1999 withdrew the rulemaking for fire brigades.

An *OSHA Priorities List* for protection of worker health and safety lists priority issues, which will be added to the Regulatory Agenda as current rulemakings are completed. These include an extensive update of the PELs, a noise/hearing conservation standard for non-covered industries (i.e., agriculture), and metal working fluids (this includes a standard for endotoxin).

The *additional priority issues*, including workplace violence, motor vehicle safety, occupational asthma, reproductive hazards, and diesel particulate matter [dpm; particulate generally less than 1 µm (submicron particles)] are supposed to be addressed through voluntary guidelines and voluntary industry standards. OSHA has said it will work with industry and labor groups on these last issues to encourage worker protection without developing new rules at this time.

However, for dpm, OSHA could pursue a full comprehensive standard. Studies suggest dpm is cancer causing (NTP, IARC) and the Mine Safety and Health Administration (MSHA) on 1/19/01 finalized two standards [underground coal miners (66 FR 5526) and metal and nonmetal miners (66 FR 5706)], which OSHA may follow. The final rule for underground coal mines requires that emissions from certain diesel equipment be restricted to no more than 2.5 grams/hour of dpm as measured in a laboratory test. There are various phase-in dates. In underground metal and nonmetal mines, the rule limits dpm concentrations, where miners usually work or travel, to about 200 µg/m<sup>3</sup> of air of dpm, generally through the application of engineering controls. There are other requirements and various phase in dates. The standards do not apply to above ground mines. The exposure is considered different.

## **Summary**

There is a new administration, so there will be many new people, changes, and uncertainties. Since the legislative mandates for EPA and OSHA remain, there should be many regulatory activities. Hopefully, OSHA and EPA will strive for cooperation rather than confrontation with industry in 2001 and beyond.

## **Appendix 1: OSHA Ergonomics Regulations (29 CFR 1910.900-945)**

### *Who’s Covered?*

- All general industry employers are covered by the standard.
  - The standard does **not** apply to employers covered by OSHA’s construction, maritime or agricultural standards [29 CFR 19010.900(a)], or employers who operate a railroad. *Cotton gins and cotton production, which are agriculture, are not covered.*

### When is the standard effective?

- Standard is effective on January 16, 2001.

### What are the specific compliance dates?

- Employers must begin to distribute information on the standard to employees and begin receiving and responding to reports of injuries not later than October 14, 2001. Employers must also meet the following time frames for specific requirements of the standard:
  - *Determination of Action Trigger* - within seven calendar days after employee has experienced an MSD.
  - *MSD management* - within seven calendar days after its determined job meets the Action Trigger.
  - *Management Leadership and Employee Participation* - within 30 calendar days after job meets Action Trigger.
  - *Train employees involved in setting up and managing ergonomics program* - within 45 calendar days after job meets Action Trigger.
  - *Train current employees, supervisors or team leaders* - within 90 calendar days after job meets Action Trigger.
  - *Job Hazard Analysis* - within 60 calendar days after job meets Action Trigger.
  - *Implement Initial Controls* - within 90 calendar days after job meets Action Trigger.
  - *Program Evaluation* - within three years after job meets Action Trigger.
  - *Implement Permanent Controls* - Not later than January 18, 2005.

### What is a Musculoskeletal Disorder?

Work-related musculoskeletal disorders (MSDs) are disorders of the muscles, nerves, tendons, ligaments, joints, cartilage, blood vessels, or spinal discs, e.g., carpal tunnel syndrome, tendinitis and back injuries. Workplace MSDs are caused by exposure to the following risk factors: repetition, force, awkward postures, contact stress, and vibration.

- The ergonomics standard includes MSDs in the following areas of the body that have been associated with exposure to risk factors: neck, shoulder, elbow, forearm, wrist, hand, abdomen (hernia only), back, knee, ankle and foot.
- The standard does **not** address injuries caused by slips, trips, falls, vehicle accidents, or similar accidents.

### What does the standard require?

- All employers must provide employees basic information about:
  - Common MSDs and their signs and symptoms.
  - The importance of reporting MSDs, and signs and symptoms, as soon as possible.
  - How to report MSDs in the workplace.
  - Risk factors, job and work activities associated with MSD hazards.
  - A brief description of OSHA's ergonomics standard.
- **No further action needed until/unless an employee reports an MSD or persistent signs or symptoms of an MSD.**

### Employer requirements once an MSD has been reported.

- Promptly determine whether MSD or its signs or symptoms is an MSD incident. Employers may request assistance of a health care professional to make that determination.
  - An MSD incident means an MSD is work-related, and requires days away from work, restricted work, or medical treatment beyond first aid, or the signs and symptoms last for seven (7) or more consecutive days after reporting.
  - Determine whether the MSD incident meets the standard's "Action Trigger."

### Action Trigger

Employers must review the worker's job to determine whether it routinely involves exposure to one or more of the five ergonomic risk factors on one or more days a week.

- The standard includes a "Basic Screening Tool" - a two-page checklist that identifies the five risk factors which could lead to an MSD hazard. These risk factors are:
  - *Repetition* - e.g., repeating same motions every few seconds for 2 hours at a time, or using a device (such as a keyboard and/or mouse) steadily for more than 4 hours daily.
  - *Force* - e.g., lifting more than 75 pounds at any one time, or pushing/pulling with more than 20 pounds of initial force (such as pushing a 65 pound box across a tile floor for more than two hours per day).
  - *Awkward Postures* - e.g., repeatedly raising or working with the hands above the head for more than two hours a day, or working with the back, neck or wrists bent for more than two hours total per day.
  - *Contact Stress* - e.g., using the hand or knee as a hammer more than ten times an hour for more than two hours total per day.
  - *Vibration* - e.g., using tools or equipment that typically have high vibration levels (such as chainsaws, jack hammers, percussive tools) for more than 30 minutes per day or tools with moderate vibration levels (such as jig saws, grinders, etc) for more than two hours per day.

### Employer's responsibilities if job meets "Action Trigger."

Employers can use a "Quick Fix" option, and not implement a complete program, for problems that can be resolved in 90 days in a job where only one MSD had occurred, and where no more than two MSDs have been reported in the preceding 18 months. If the problem cannot be corrected in 90 days, employers must develop and implement a full ergonomics program for that job and others just like it with the following elements:

- *Management Leadership and Employee Participation*
  - Assign and communicate responsibilities for setting up and managing the ergonomics program.
  - Provide designated persons with authority, resources and information necessary to meet responsibilities.
  - Ensure company policies and practices encourage employee participation in the program, as well as early reporting of MSDs, their signs and symptoms and hazards.
  - Have ways for employees to report MSDs and promptly respond to those reports.
  - Ensure employees are included in the development, implementation and evaluation of company's ergonomics program.
- *Job Hazard Analysis and Control*
  - Include all employees who perform the same job where and MSD exists, and observe employees performing the job.
  - Use one or more of the job hazard analysis tools provided in the standard (Appendix D), or any other reasonable method appropriate to the job and relevant to the risk factors being addressed.
  - Fix problem jobs to control hazards or reduce them to the extent feasible.

- *Training*
  - Provide initial training for employees, supervisors and team leaders within 90 days after employee's job meets the Action Trigger.
  - Provide initial training to each employee involved in setting up and managing an ergonomics program, and how to implement and evaluate controls used to address hazards.
  - Provide follow-up training every three years.
- *MSD Management*
  - Provide, at no cost to employee, access to a health care professional, evaluation and follow-up of an MSD incident, and any temporary work restrictions determined to be necessary.

#### Work Restriction Protection (WRP)

WRP must be provided to employees who receive temporary work restrictions. This includes maintaining 100% of earnings and full benefits for employees who require limitations on their work activities or temporary alternate duty. Employees removed from work will receive 90% of earnings and 100% of benefits. WRP benefits last until either: (1) the employee is safely able to return to work; or (2) a health care professional determines the employee can never return to the former job; or (3) 90 calendar days have passed, whichever comes first.

- Standard allows for an employee to receive a second opinion from his/her own health care professional about the need for work restrictions, and a dispute resolution process.

- *Program Evaluations*
  - Evaluate the ergonomics program at least every three years.
  - Correct any deficiencies found in the program.
  - Involve employees in the evaluation.
- *Recordkeeping*
  - Employers with 11 or more employees (including part-time or temporary) must keep written or electronic records for three years or until replaced by updated records.

#### Grandfather Clause

Employers who currently have ergonomics programs in place may continue to implement their program instead of complying with this standard, provided the following criteria are met:

- Program is written and was implemented before November 14, 2000.
- Program elements include management leadership, employee participation and job hazard analysis and control, training, and program evaluation.
- An MSD management policy must be implemented by January 16, 2002.

#### **Appendix 2: OSHA Recordkeeping Regulations (29 CFR 1904 and 1952)**

##### What is the effective date?

Final rule becomes effective on Jan. 1, 2002.

##### Who's Covered?

All industry sector including general industry and agriculture.

According to OSHA, this rule addressing the recording and reporting of occupational injuries and illnesses, improves employee involvement, creates simpler forms, provides clearer regulatory requirements, and allows employers more flexibility for using computers to meet OSHA regulatory requirements

##### Brief summary of some of the key provisions

- Updates three recordkeeping forms:
  - OSHA Form 300 (Log of Work-Related Injuries and Illnesses); simplified and printed on smaller legal sized paper.
  - OSHA Form 301 (Injury and Illness Incident Report); includes more data about how the injury or illness occurred.
  - OSHA Form 300A (Summary of Work-Related Injuries and Illnesses); a separate form updated to make it easier to calculate incident rates.
- Eliminates different criteria for work-related injuries and work-related illnesses; one set of criteria will be used for both. (The former rule required employers to record all illnesses, regardless of severity).
- Requires records to include any work-related injury or illness resulting in one of the following: death; days away from work; restricted work or transfer to another job; medical treatment **beyond** first aid; loss of consciousness, or diagnosis of a significant injury/illness by a physician or other licenced health care professional.
- Includes new definitions of medical treatment, first aid, and restricted work to simplify recording decisions.

Table 1. OSHA Regulations that Apply to Cotton Industry Sectors<sup>1</sup>

Industry Sector	SIC Code	NAICS	OSHA Standards that Apply
Cotton Farming	0131	11192	(Agriculture) <sup>2</sup> 29 CFR 1928
Cotton Ginning	0724	11511	(Agriculture) <sup>2</sup> 29 CFR 1928
Cottonseed Oil Mills (cottonseed processing)	2074	311223 (other oilseed processing)	(General Industry) 29 CFR 1910
Warehouse (Farm Product Warehousing and Storage)	4221	49313	(General Industry) 29 CFR 1910
Textile Mills (yarn spinning mills, thread mills, fabric mills)	28, 2281, 2284, 2211	313, 313111, 313113, 3132	(General Industry) 29 CFR 1910

<sup>1</sup> Regulations that apply to all sectors:

- OSH Act (29 U.S. Code 651 et seq.); (“general duty clause” is Sec. 5(a)(1))
- 29 CFR 1903 – Inspections, citations, and proposed penalties
- 29 CFR 1904 – Posting, recording and reporting requirements for occupational injuries and illnesses
- 29 CFR 1905 – Rules for Variance, limitations and exceptions
- 29 CFR 1908 – Consultation agreements
- 29 CFR 1952 – Recordkeeping and reporting for state plan states
- 29 CFR 1910 – General industry standards
- 29 CFR 1928 – Agriculture standards

<sup>2</sup> The only general industry standards that apply to agriculture are specifically listed under 29 CFR 1928.21(a).

Table 2. Most Frequently Cited OSHA Standards, FY 2000

Standard Section 29 CFR	Standard	Subject	No. Alleged Violations
1900.1200(e)(1)	HazCom/General Industry	Written Program	2152
1900.212(a)(1)	Machine Guarding	Guarding Methods	1446
1904.2(a)	Recordkeeping	OSHA Log	1358
Section 5(a)(1)	General Duty Clause	Safe/Healthful Conditions	1084
1910.1200(h)	HazCom/General Industry	Information, Training	982
1910.23(c)(1)	Guarding Floor/Wall	Standard Railing	837
1910.212(a)(3)(ii)	Machine Guarding	Point of Operation	826
1910.1200(h)(1)	HazCom/General Industry	Information, Training	798
1910.134(c)(1)	Respiratory Protection	Written Program	760

Table 3. Cotton Belt States OSHA Enforcement

OSHA State Plan States	State Under Federal OSHA Jurisdiction
AZ	AL
CA	AR
NC	FL
NM	GA
SC	KA
TN	LA
VA	MO
	MS
	OK
	TX

Table 4. OSHA Rulemaking<sup>1</sup>

ISSUE	STATUS
<b>1. CURRENT REGULATORY AGENDA</b>	
<ul style="list-style-type: none"> <li>● <b>Ergonomics Programs Standard;</b> Preventing Musculoskeletal Disorders (29 CFR 1910.900-945) (<u>Final Rule 11/14/00</u>)</li> </ul>	ANPR 8/03/92 (57 FR 34192); Stakeholder meetings 1998; NPRM 11/23/99 (64 FR 65768), hearings Mar 13-May 13, additional comments (6/28), post-hearing briefs (8/12/00); Final rule 11/14/00 (65 FR 68261) (agriculture not covered), effective 1/16/01, first compliance 10/15/01; ANSI draft 1998; CA Standard final -- effective 7/97 (covers all); NC proposal 11/98 (covers all, on hold; adopted federal standard).
<ul style="list-style-type: none"> <li>● <b>Safety and Health Program Rule</b> (for general industry &amp; maritime); (agriculture not covered)(29 CFR 1900.1)(<u>long term</u>)</li> </ul>	Non-mandatory guidelines 1989 (54 FR 3904); Draft proposal 11/98; NPRM due 9/01; [CA standard 1989 – Injury and Illness Prevention].
<ul style="list-style-type: none"> <li>● Med. surveillance (ANPR 9/88; withdraw 3/95)</li> </ul>	could be part of S&H Program Rule
<ul style="list-style-type: none"> <li>● monitoring (ANPR 9/88; withdrawn 3/95)</li> </ul>	could be part of S&H Program Rule
<ul style="list-style-type: none"> <li>● <b>Occupational Exposure to Crystalline Silica</b> (<u>long term/Proposed rule stage</u>)</li> </ul>	OSHA Special Emphasis Program (SEP) for Silicosis 10/31/96; IARC classified as human carcinogen (10/96); 1998 ACGIH listed as suspect carcinogen & changed the TLV to 0.05 mg/m <sup>3</sup> ; 1999 NTP human carcinogen; OSHA rulemaking underway, NPRM due 9/01 (MSHA NPRM due 2/01); recent studies suggest that current standard insufficient to protect against silicosis (all industries except agriculture expected to be covered in NPRM); OSHA likely to follow ACGIH.
<ul style="list-style-type: none"> <li>● <b>Occupational Injury and Illness Recordkeeping and Reporting Rule</b> (29 CFR 1904 and 1952)(<u>Final rule 1/19/01</u>)</li> </ul>	NPRM 2/2/96 (61 FR 4030); final rule 1/19/01, with implementation/effective 1/1/02; guidance on what is a work-related injury, Small Business exemption 10 or fewer employees.
<ul style="list-style-type: none"> <li>● <b>Consultation Agreements</b> (29 CFR 1908)(<u>Final Rule 10/26/00</u>)</li> </ul>	NPRM 7/2/99; final rule 10/26/00 (65 FR 64281), effective 12/26/00; requires greater employee participation in state-run health and safety consultation programs.
<ul style="list-style-type: none"> <li>● <b>Employer Payment for Personal Protective Equipment</b> (<u>Final rule stage</u>)</li> </ul>	NPRM 3/31/99 (64 FR 15401); final rule due 4/01; rule on who pays for what PPE
<ul style="list-style-type: none"> <li>● <b>Occupational Exposure to Tuberculosis</b> (<u>Final rule stage</u>)</li> </ul>	NPRM 10/17/97 (62 FR 54160); covers health care workers; final standard due 4/01.
<ul style="list-style-type: none"> <li>● <b>Permissible Exposure Limits (PELs) for Air Contaminants</b> (4 new PELs) (29 CFR 1910.1000)(<u>Proposed rule stage</u>)</li> </ul>	(n-hexane in 1996 notice that contained 20 substances, not on list of 4 to be in NPRM) public meeting 2/22/96; NPRM due 6/01 (will also contain OSHA guide for risk assessment and mechanism for update); None of 4 of concern but OSHA plans to address all 20 in 1996 notice sometime.
<ul style="list-style-type: none"> <li>● <b>Cotton Dust</b> (29 CFR 1910.1043) (Section 610 Review) (<u>completed</u>) (<u>Notice of report, Direct final rule Washed cotton exemption 12/7/00</u>)</li> </ul>	Review under section 610 of Reg. Flex. Act, EO 12866; began review 6/23/98 (63 FR 34140), hearing 7/98, comments 9/98; report notice and Direct final rule batch washed cotton exemption 12/7/00; other changes not necessary, standard effective and necessary.
<ul style="list-style-type: none"> <li>● <b>Control of Hazardous Energy Sources (lockout/tagout)</b> (29 CFR 1910.147) (Section 610 Review) (<u>completed</u>)</li> </ul>	Review effectiveness and need of standard, etc. 10/01/96, end 10/97; report 1/30/00, standard necessary no change necessary; revising compliance directive & interpretive guidance, developing compliance assistance materials.
<ul style="list-style-type: none"> <li>● <b>Grain Handling Facilities</b> (29 CFR 1910.272) (Section 610 Review) (<u>Prerule stage</u>)</li> </ul>	NPRM 12/95 definition of storage facility as confined space, Final rule 3/8/96; Section 610 review 10/97; report due 1/01.
<ul style="list-style-type: none"> <li>● <b>Process Safety Management of Highly Hazardous Chemicals</b> (29 CFR 1910.117) (<u>Prerule stage</u>)</li> </ul>	Adding new chemicals, raising issue of reactives, and clarifying coverage of flammable liquids; NPRM to be det.
<ul style="list-style-type: none"> <li>● <b>Fire Brigades</b> (29 CFR 1910.156) (revise and update of standard) (<u>withdrawn</u>)</li> </ul>	Notice of intent to revise 20 year old standard in 1999; withdrawn 11/99.
<ul style="list-style-type: none"> <li>● <b>Flammable and Combustible Liquids Storage</b> (29 CFR 1910.106) (Plane Language Revision) (<u>Proposed rule stage</u>)</li> </ul>	NPRM due 4/01, to get comments to revise and update/ streamline requirements to make less complex and remove unnecessary parts, put in plain language.
<ul style="list-style-type: none"> <li>● <b>Bloodborne Pathogens (Amend for Prevention of Needlesticks and Other Sharp Injuries)</b> (29 CFR 1910.130) (Final Rule 1/18/01)</li> </ul>	To amend standard to add new requirements to the annual review, amend recordkeeping and modify def. for eng. control; leg. Nov.'00; Final Rule 1/18/00 (66 FR 5317); eff. 4/18/01
<ul style="list-style-type: none"> <li>● <b>Metal Working Fluids: Protecting Respiratory Health</b> (oil mist, endotoxin) (<u>long term/Proposed rule stage</u>)</li> </ul>	Could affect respiratory disease/endotoxin; Standards Advisory Committee (SAC) recommended mandatory standard; moved to current Agenda 1999; NPRM due 12/01.
<ul style="list-style-type: none"> <li>● <b>Hazard Communication</b> (29 CFR 1910.1200) (OSHA Task Force)(<u>undetermined</u>)</li> </ul>	NACOSH held 4 hearings in 1996 to discuss issues relating to simplifying MSDSs, recordkeeping, training effectiveness, nuisance dust, etc.; Next action undetermined.
<ul style="list-style-type: none"> <li>● <b>Respiratory Protection</b> (proper use of modern respirators) (29 CFR 1910.134)(<u>long term</u>) [Respirators (29 CFR 1910.134) (<u>Completed</u>)]</li> </ul>	Proposal for comments for assigned protection factors (APFs); Final rule due 12/01. [ANPR 1982; proposal 11/94; final standard (1/8/98; 63 FR 1153) (effective 1/8/98)].



Table 4. Continued

<ul style="list-style-type: none"> <li>● <b>Exit Routes (Means of Egress)</b> (29 CFR 1910.35-.38) (Final rule stage)</li> </ul>	NPRM 9/10/96 (61 FR 47712); Final rule (plain language revision to out-of-date standard) due 12/01
<ul style="list-style-type: none"> <li>● <b>Powered Industrial Truck Operator Training</b> (29 CFR 1910.178) (Completed) (Compliance Directive 12/00)</li> </ul>	Covers forklift truck; final standard 12/1/98 (63 FR 66239); Compliance Directive (CPL 2-1.28A), 12/7/00.
<ul style="list-style-type: none"> <li>● <b>Permit-required Confined Space</b> (revisions to clarify rescue and emergency services, flexibility in retrieval line attachment, employee rights to observe evaluations and results) (29 CFR 1910.146) (Completed)</li> </ul>	Original Final Standard 1/14/93 and 6/29/93 (corrections); (new) Proposal 11/94; final (amended) standard 12/1/98 (63 FR 66018). (Does not specifically cover agriculture.)
<ul style="list-style-type: none"> <li>● <b>Indoor Air Quality in the Workplace</b> (<u>long term</u>)</li> </ul>	Proposal 4/94; hearings; OSHA reviewing comments; 11/96 court declined to compel regulation of tobacco smoke; next action undetermined.
<b>2. TOP NEW PRIORITIES (10/96 published 6/97): To be added to OSHA's regulatory calendar as others are completed</b>	
<ul style="list-style-type: none"> <li>● <b>PELs Update</b> (more extensive/on regular basis)</li> </ul>	Agriculture proposal 6/92, included cotton dust.
<ul style="list-style-type: none"> <li>● <b>Noise/Hearing Conservation</b></li> </ul>	For construction and other non-covered industries (e.g., agriculture); ANPR for construction 4/00.
<b>3. ADDITIONAL PRIORITIES: These will be addressed through guidelines, voluntary industry initiatives, informational campaigns, and other means, without developing new rules at this time.</b>	
<ul style="list-style-type: none"> <li>● <b>Diesel Exhaust (Particle Matter; dpm, generally less than 1 µm)</b> (Final MSHA rules 1/19/01) (30 CFR 72 and 57)</li> </ul>	NTP carcinogen 1999; IARC probable human carcinogen; MSHA proposals (4/9/98; 63 FR 17496 and 10/20/98; 68 FR 57132); final MSHA standards 1/19/01 (66 FR 5526, 5706) (exposure of underground coal miners [equipment 2.5 g/h of dpm] and metal and nonmetal miners [200 µg/ m <sup>3</sup> of dpm]) (effective 3/20/01); OSHA may follow MSHA.
<ul style="list-style-type: none"> <li>● <b>Workplace Violence</b></li> </ul>	3/96 non-mandatory guidelines for health-care and social service workers. 10/27/97 Guide to Federal Agencies; OSHA holding additional stakeholder meetings; proposed guidelines late-night retail workplace.
<ul style="list-style-type: none"> <li>● <b>Motor Vehicle Safety</b></li> </ul>	Proposal 7/90; withdrawn 3/95
<ul style="list-style-type: none"> <li>● <b>Occupational Asthma</b> (including latex allergy)</li> </ul>	Could affect all organic dusts
<ul style="list-style-type: none"> <li>● <b>Solvents</b></li> </ul>	
<ul style="list-style-type: none"> <li>● <b>Reproductive Hazards</b></li> </ul>	

<sup>1</sup> Section 1: OSHA current Regulatory Agenda (11/30/00; 65 FR 74076; 65 FR 74107) (29 CFR 1928 standards cover agriculture; 29 CFR 1928.21 lists the 29 CFR 1910 standards that cover agriculture)

Section 2: On 12/13/95, OSHA released its Priorities List for protection of worker health and safety. These New Priorities/ issues will be added to the Regulatory Agenda as current rulemakings are completed.

Section 3: Additional priority issues (from the priorities list) are to be addressed through voluntary guidelines to encourage worker protection without developing new rules on these issues at this time.

**Abbreviations:** ACGIH = American Conference of Governmental Industrial Hygienists; ANSI = American National Standards Institute; ANPR = Advanced Notice of Proposed Rulemaking; NPRM = Notice of Proposed Rulemaking; IARC = International Agency for Research on Cancer; NTP = National Toxicology Program; MSHA = Mine Safety and Health Administration