

WORKPLACE INJURY & ILLNESS PREVENTION PROGRAMS for Tooling & Machining Companies

SUMMARY

This BMA has been prepared to assist NTMA member companies in California to comply with Cal/OSHA requirements for programs to prevent job-related injuries and illnesses. Although this booklet is written with the California requirements in mind, companies elsewhere will benefit from this approach to safety improvement. A structured approach to safety can reduce costs and improve productivity. The training plan outlined here can be used for general training and continuous improvement as well.

BACKGROUND

California Senate Bill (SB) 198 amended the California Code of Regulations, Title 8, Section 3203, by requiring every California employer to have an effective Injury & Illness Prevention Program. Major elements of the requirements include:

1. The program must be described in writing, and must include the name(s) of the person(s) responsible for the program.
2. There must be a system for ensuring employee compliance.
3. There must be a system to ensure that communications to employees are understandable. The system must provide for any employees who cannot understand English or who are functionally illiterate.
4. The program must include procedures to identify and evaluate hazards. Regularly scheduled safety inspections must be part of these procedures.
5. The program must include procedures to investigate job-related injuries (including "near misses"), job-related illnesses, and any serious exposure to harmful substances, radiation, or other hazards.
6. The program must include methods or procedures to correct unsafe conditions in a timely manner.
7. The program must provide for appropriate job safety training and instruction for all employees.
8. The regulations impose recordkeeping requirements which are primarily related to records of safety inspections and resulting corrective actions, and to documentation of safety training.

The California requirements and strategies for compliance for tooling & machining companies are discussed in detail in the following section - Note that some exceptions for written records exist for companies with less than 10 employees.

YOUR WRITTEN PROGRAM

Your written plan can function much like a quality manual. It sets down your system in writing, and thereby defines your program. The sample written program here is designed to meet a typical small tooling & machining company's need to comply with the California regulations.

As with a quality manual, simply copying the sample program will not be effective unless the program reflects what actually happens in the shop. Read the following short discussions of the Cal/OSHA requirements before reading the corresponding sections in the sample plan. Your company's program will need to reflect your own circumstances including:

- Commitment and ability by top management to achieve minimum compliance and to use the opportunity to pursue a program that will contribute to overall workforce stability, reduced costs, and improved competitive position;
- Availability of time to carry out the program;
- Supervisors' knowledge and ability to communicate and train;
- Skills & knowledge of employees & new hires - (including communication skills);

- Your plant and equipment; and,
- Any existing efforts in safety and general training.

POLICY STATEMENT

It is useful to open your plan with a policy statement which indicates management's commitment to protect its workers and to meet the prevailing regulations.

RESPONSIBLE PERSONS

In California, the persons responsible for the injury & illness prevention program must be identified by name. NTMA recommends listing the individual's title as well, especially in larger companies. In most small shops, the responsible person is likely to be a supervisor, or the company owner. In some companies, experienced craft workers, office managers, engineers, or others may fulfill this role. Support of the responsible person's authority by top management is required to make this program pay off in reduced losses and costs. Another requirement for success is allowing the responsible person the time to accomplish this task. NTMA recommends that if more than one person is responsible, a chain of command and individual responsibilities should be clearly described.

SYSTEM FOR ENSURING EMPLOYEE COMPLIANCE

The California regulation states that "Substantial Compliance" includes elements such as:

- Recognition of employees who work safely;
- Training and retraining;
- Disciplinary actions; OR,
- Any other such means that ensures employee compliance.

Recognition

NTMA believes that recognition programs can encourage but not ensure safe work habits, and that such programs can be difficult to maintain for smaller companies. Some companies pay a cash bonus for accident-free performance, but an injured worker may feel that the company used his misfortune to withhold an expected bonus. A modest quarterly bonus for accident-free work can be an effective reminder, however. Year-end bonuses for safety are probably too infrequent to be effective. In any case, cash safety bonuses will complicate your payroll system.

In small shops, group recognition can be effective without being costly. Simple reminders such as doughnuts or pizza for an accident-free month, or for the period between safety meetings, can be effective and timely. Other rewards that are easy to administer and relatively inexpensive include:

- Tickets for sports events;
- Merchandise gift certificates;
- U.S. Savings Bonds;

- Extra paid vacation time for an accident-free year (or other period);
- Certificates; or,
- Recognition in company newsletter.

Recognition programs are not required under a literal reading of the California rules, as long as other means exist to ensure employee compliance with safe work habits.

Training & Retraining

A continual effort to train and retrain employees in all phases is a hallmark of successful tooling and machining companies. NTMA has always recommended making safety and health an integral part of all job training. Since the California rules require a training component to the safety program, NTMA suggests that compliance with this requirement be viewed as an opportunity to set up a systematic, continuous training and retraining program for general shop subjects including safety and health.

Disciplinary Actions

Disciplinary actions are discussed at length in the NTMA Business Management Aid, "Disciplinary Communications with Employees." Generally, actions for violations of company rules (of any kind) follow this sequence:

1. Verbal warning for first minor offense.
2. Written warning with copy in personnel file.
3. Suspension without pay.
4. Termination.

Suspension or termination might be invoked immediately for serious safety violations.

NTMA believes that disciplinary actions should generally be used only as a last resort, to weed out those whose repeated work practices are a potential liability. Effective training, recognition and incentives, daily supervision, and communications can help reduce the need for disciplinary actions.

Other Ways to Ensure Employee Compliance

Effective supervision of day-to-day activities, with attention to safety is one of the best ways of ensuring safe work practices in any company. Providing adequate support to supervisors is the most effective way to accomplish this. Supervisors must have clear management support to understand that safety must not be sacrificed to "get the job out." Supervisors may need specific training in appropriate regulations and in general safety principles. A systematic approach to training supervisors in general communication and supervisory skills is worth pursuing for overall efficiency, quality, productivity, and morale. Supervisor training programs are available through community colleges, from some NTMA chapters, and from various private organizations.

A number of other federal and State regulations require training and documentation on specific safety and health matters, such as Chemical Hazard Communications, Lockout/Tagout procedures, and Prevention of Blood-Borne Diseases.

Specific compliance efforts for these and other issues can be cited in your written program. Refer to NTMA's other Business Management Aids on these items for further details.

SYSTEM FOR UNDERSTANDABLE COMMUNICATIONS TO EMPLOYEES

Understandable Communications

California employers are required to have a safety communications system "readily understandable by all affected employees." Cal/OSHA has stated its interpretation of this provision as meaning that "you should be prepared to communicate with employees in a language they can understand, and if an employee cannot read in any language, you must communicate ... orally in a language 'readily understandable'."

If your company employs any workers who have little or no competency in English, you must take steps to accommodate them (at least for safety training). In smaller shops, a "buddy system" may be practical if responsible bilingual employees can be assigned as translators or coaches. Employees with poor skills in English should be encouraged to take adult education courses in "English as a Second Language." Videos and demonstrations of safe practices do not require learners to read, and are effective training and communications techniques for most workers.

No Fear of Reprisals

The California regulations also require that the communication system encourage employees to inform the employer of hazards without fear of reprisal. A simple suggestion box system is often the easiest way of demonstrating compliance with this requirement.

A demonstrated concern for safety by management provides the best protection against employees' fear of reprisals, but is harder to demonstrate to an OSHA inspector. NTMA recommends that a suggestion system not be limited to matters of safety, but be open to a broad range of improvements in quality, productivity, cost reduction, and so on. Some larger shops successfully maintain suggestion systems with cash rewards and other incentives.

Other Communications

Other options cited in the California rules for safety communications include:

- Meetings;
- Training programs;
- Posters, signs, etc.;
- Labor/management safety & health committees (subject to additional requirements in California);
- Anonymous notification system (suggestion box, etc.); or,
- Any other means that ensures communication with employees.

NTMA believes that short, frequent training meetings are the best method of accomplishing employee communications for safety, as well as for most other communications on training, work rules, company policy and so on. Posters and other visual aids can be helpful, but are no substitute for interaction with a knowledgeable trainer. The use of films, videos, booklets and other training materials help make the trainer's job easier, but again, do not eliminate the need for a competent individual to respond to questions.

Labor-Management Committees

Labor-management safety and health committees, if used are subject to additional requirements in California. Specifically, the committee must:

- Meet at least every three months;
- Maintain written records of issues discussed at meetings and make these records available to affected employees or to Cal/OSHA;
- Review results of safety inspections (see section below);
- Review investigations of job injuries and illnesses, and submit recommendations to management;
- Review investigations of alleged hazards, and if necessary, conduct its own inspection and investigation.
- Submit recommendations on employee safety suggestions; and,
- Upon request of Cal/OSHA, verify abatement of citations issued.

Although NTMA believes that cooperation between labor and management is very important, the added requirements under the California regulations are likely to be burdensome for most smaller companies. If your plant is unionized, a labor-management safety and health committee may be required under the collective bargaining agreement.

Companies with less than ten employees are permitted to instruct employees orally in job safety and health, but are not relieved of any of the other requirements for employee communications.

IDENTIFICATION & EVALUATION OF HAZARDS

Cal/OSHA requires a system of identifying and evaluating workplace hazards. The system must include scheduled, periodic inspections to identify unsafe conditions and work practices.

Inspections must be made:

- At the start of the injury & illness prevention program (except for companies which had written injury & illness prevention programs under the earlier version of California code Section 3203 before July 1, 1991);
- Whenever new hazards are presented by new "substances, processes, procedures or equipment"; and,

- “Whenever the employer is made aware of a new or previously unrecognized hazard.”

Cal/OSHA interprets this provision as requiring inspections to be done by qualified persons and as requiring that written inspection reports be reviewed by management and/or the safety committee.

INVESTIGATION PROCEDURE

The injury & illness prevention program must include “a procedure to investigate occupational injury or occupational illness.” Although not specifically stated in the regulations, Cal/OSHA interprets investigation procedures to be required for “near misses” and for potentially serious exposure to hazards. NTMA believes that the Cal/OSHA interpretation makes sense.

Corrective Action

A system for corrective action is required. If you already use a corrective action procedure in your quality system, the same procedure can be used for correcting job safety and health problems.

Corrections must be timely and prioritized according to the severity of the hazard. Discovery of an imminent and severe hazard requires removing exposed workers except for those who are performing repairs or other corrective work. Employees performing safety and health repairs or corrections must be adequately protected.

TRAINING

California employers are required to provide training and instruction in job safety and health to all employees:

- When the injury & illness prevention program is started;
- To all new employees;
- To any reassigned employees who have not been trained for their new tasks;
- Whenever new hazards are presented by new processes, procedures, or equipment;
- Whenever the employer becomes aware of a new or previously unknown hazard; and,
- For supervisors.

NTMA recommends that training in job safety and health be part of an overall training system. Most smaller companies will need to rely heavily on supervisors and managers to conduct training sessions. Providing training for your trainers should be an integral part of your overall training system.

NTMA recommends following a planned safety and health training curriculum tailored to your company’s situation. Analysis of past injuries may indicate a need for special training in problem areas. Tooling and machining companies generally incur most losses from hand injuries, eye injuries, and back injuries (from improper lifting), and attention should be given to these areas. A sample curriculum is included in this BMA. The curriculum should be reviewed

periodically, or revised if a need is found for extra attention to specific problems.

The use of video training materials is highly recommended. Videos are especially useful for orienting new employees, or for workers who need training for new assignments. Complete lesson plans for safety training are among the Metalworking Training System modules available from NTMA. Sample training plans are also included in NTMA’s Business Management Aids manual on federal OSHA requirements for training in chemical hazard communications and equipment Lockout/Tagout procedures. A number of safety and health videos are also available through NTMA, as well as from other sources.

RECORDKEEPING

Inspection Records

In California, employers are required to keep records of their scheduled, periodic safety and health inspections. These records must:

- Include the names of inspectors;
- Describe any hazards identified;
- Describe any action taken to eliminate the hazards; and,
- Be kept on file for at least three years.

Companies with less than ten employees need to keep inspection records only until any identified hazards have been corrected.

Training Records (*It is important that employees sign stating they have received training*)

- Records must be kept of each employee’s safety & health training. Individual training records must be identified by the employee’s name or other identifier (payroll number, etc.).
- Individual training records must include:
 - ✓ Dates of training;
 - ✓ Training topics; and,
 - ✓ Training providers (instructors & training aids used).
- Individual training records must be kept on file for three years.
- EXCEPTIONS:
 - ✓ Records need not be maintained for workers who are employed for less than one year, as long as the records are given to the employee at termination.
 - ✓ Companies with less than ten employees can comply with this training documentation requirement by maintaining a training log (see sample form).

NTMA recommends that all employee training records be kept for three years to provide documentation in defense of disputes. Use of an employee training log form similar to the sample in this BMA should suffice to meet Cal/OSHA requirements. The training log can be used to record all employee training, not just for safety & health subjects. Initial safety orientation training should be the first entry on these forms for new employees.

_____ COMPANY

**WORKPLACE INJURY & ILLNESS
PREVENTION PROGRAM**

POLICY STATEMENT

It is the policy of _____ Company that all work by all employees be done in a safe and healthful manner at all times. The people who make up our company are its most valuable asset, and a program to prevent job-related injuries and illnesses is actively maintained. Cooperation and teamwork by all employees in our injury and illness prevention program is essential to the effectiveness of the program. _____ Company strives to meet or exceed all appropriate federal, state, and local safety and health regulations, and all employees are expected to work in a safe and healthful manner as a condition of employment. Our safety program also follows recommendations of the National Tooling & Machining Association.

We strive to continually improve safety and health at our workplace, and encourage participation by all employees in our injury & illness prevention program.

RESPONSIBLE PERSON

(NAME & TITLE) has the authority and responsibility for implementing and administering this workplace injury and illness prevention program. Suggestions for updates, improvements, or any other changes to this program should be directed to (Mr(s) _____).

SYSTEMS TO ENSURE EMPLOYEE COMPLIANCE

_____ Company is responsible for the workplace safety and health of its employees, and is required by law to ensure that employees follow safe and healthful work practices. To accomplish this, we have put the following systems in place:

Recognition - _____ Company encourages safe work practices by rewarding accident-free performance in a number of ways, for groups of employees and for individuals. These include:

(list general terms of any incentives or rewards)

Training & Retraining - _____ Company maintains a systematic and continuous program of training and retraining in safe and healthful work practices for all employees. Details are listed below in the description of our safety & health training program.

Disciplinary Actions - Following safe work practices is a condition of employment at _____ Company. Failure to follow safe work practices is a violation of company rules and will be handled according to the progressive discipline procedures referenced in our Employee Handbook. Repeated failure to follow safety and health rules can result in suspension without pay or termination.

Daily Routine - Supervision of daily activities at _____ Company is a principal method of ensuring safe work practices. Our supervisors principal job is

to see that employees get their work done safely, efficiently, and to ensure customer satisfaction. Our supervisory personnel are trained in supervision and in specific safety and health subjects appropriate to our company.

EMPLOYEE COMMUNICATIONS

_____ Company has a system for communication with employees on matters of safety and health, as well as for other job-related subjects.

Short meetings for communication and training are regularly scheduled and follow a planned curriculum of safety and health topics.

_____ Company encourages and welcomes employee suggestions on any work-related matter, including job safety and health. Suggestions can be submitted anonymously through the suggestion box.

Supervisors are available to advise and answer questions on job safety and health at any time. Supervisors are authorized to stop any employee observed acting in an unsafe manner and to provide immediate instruction on safe practices to the employee.

HAZARD IDENTIFICATION AND EVALUATION

_____ Company uses a system of regularly scheduled periodic inspections to identify and evaluate workplace hazards. Detailed inspections are scheduled and conducted every three months. Inspections are performed by trained supervisors or by other knowledgeable, qualified employees. Written inspection reports are reviewed by management for priority assignments for correcting problems and to verify correction of previous problems. Overall inspection results are also reviewed for trends in our job injury and illness performance. Inspections may also be scheduled immediately when a hazard is recognized or suspected, or to verify correction of a problem.

INVESTIGATION PROCEDURE

Any job-related injuries or illnesses at _____ Company are investigated to identify contributing factors and to identify ways of eliminating hazards. Employees are encouraged to participate in investigation teams. Investigations are also conducted when "near misses" or potentially serious exposures to hazards are identified.

Corrective Action

Our corrective action system for job safety and health conforms to the corrective action provisions of our quality procedures. _____ Company strives to correct unsafe conditions promptly after they are identified. Corrective action priorities are assigned according to the severity of the hazard. If necessary, the discovery of an imminent hazard may result in employees being removed from the hazard area until the problem is corrected. Any employees performing repairs or corrective work will be appropriately protected.

TRAINING

_____ Company maintains an active training program which includes training and instruction in job safety and health. A curriculum for training in job safety and health has been developed to meet our company's needs, and the curriculum is periodically reviewed and updated or revised.

Our supervisors are the key to our safety and health training, both in leading meetings and classes, and in providing daily instruction and guidance on the job.

_____ Company provides special training for supervisors to enable them to be effective trainers.

Training and instruction in job safety and health has been provided to all employees at the start of this injury and illness prevention program, and continues regularly. All newly-hired employees receive safety and health training before beginning work. Additional training and instruction is provided as necessary for employees who are assigned new tasks and responsibilities. Special training and instruction may also be provided as necessary, whenever new or previously unknown hazards are discovered.

RECORDKEEPING

_____ Company maintains written records of safety and health inspections for three years. The inspection records include the names of the inspectors, descriptions of hazards found, and actions taken to eliminate the hazards. Inspection records are reviewed by management to identify trends, verify corrective actions, and to measure continuous improvement in workplace safety and health. Records are kept of each employee's training for three years. Employees who leave employment with _____ Company are provided with copies of their training records.

_____ Company

BASIC SAFETY & HEALTH CURRICULUM

1. Orientation for new employees
 - A. Review by supervisor of:
 - basic safety & health rules;
 - specific rules for the employee's job;
 - review of injury & illness prevention program;
 - chemical hazard overview; and,
 - lockout/tagout of equipment.
 - B. New hires receive closer supervision and on-the-job training until they demonstrate the ability to work safely on their own. Training on the job is a continuous process for all employees at _____ Company.
2. Scheduled Training for All Employees (10 1/2 hours/year, minimum)*

- Chemical Hazard Communication (1 hour class, annually)*
 - Safe machine practices (15-minute lectures & demonstrations approximately every two weeks - total 6 hours/year)*
 - Lockout/tagout of equipment (30 minute class, annually)*
 - Eye protection (four 15-minute sessions per year)*
 - Safe lifting and material handling (four 15-minute sessions per year)*
 - Fire Safety (four 15-minute sessions per year)*
 - First Aid (four 15-minute sessions per year)* (Note: designated first-aid providers receive additional training.)
 - Other subjects may be presented in response to identified hazards.
- This curriculum is reviewed annually.

*Times shown are examples only. Federal OSHA requires training for Chemical Hazard Communication and lockout/tagout, but does not have a minimum training time requirement.

3. Upgrade & Reassignment Training

Employees who are reassigned or given new responsibilities are trained appropriately for the requirements of their new duties. Previous training and experience is considered when determining training requirements for new tasks. All training should be documented in an employee's personal file. It is recommended that the employee sign a statement that they have received the training.

RESOURCES

- [Guide to Developing Your Workplace Injury & Illness Prevention Program](#), Free upon request from:

Cal/OSHA Consultation Service Headquarters
3 Waters Park Drive
Suite 230
San Mateo, CA 94403
(415)573-3864

- AMT - The Association for Manufacturing Technology administers the ANSI-B-11 series of safety standards for machine tools. OSHA inspectors often use these standards for guidance in interpreting regulations, especially for power presses. NTMA participates in the B-11 committee which entitles NTMA members to a significant discount on the purchase of these standards. Information is available from:

AMT - The Association for Manufacturing Technology

Safety Department
7901 Westpark Drive
McLean, VA 22102-4269
(703)893-2900

- Your insurance carriers may offer services in support of your injury and illness prevention program. Contact your insurer and ask to speak with a loss control engineer.
- Cal/OSHA, Federal OSHA offices, and many other State OSHA offices offer consulting

inspections without threat of citations. California also offers a voluntary compliance program which exempts participating companies from random inspections.

- NTMA offers a broad range of tooling & machining training materials. For a free catalog or for more information please call NTMA at 1-800-832-7753.

This BMA was prepared by NTMA's Technical Department.