

# Minnesota OSHA

## Workplace Safety Consultation

### Minnesota STAR (MNSTAR)

### APPLICATION



*Modeled after federal OSHA's Voluntary Protection Programs (VPP)*



# I. General information

## Applicant information

- Site/employer name
- Site address
- Site manager
- Title
- Site MNSTAR contact
- Title
- Phone number
- Email address

## Company/corporate name (If different from applicant)

- Name
- Address
- MNSTAR contact
- Title
- Phone number
- Email address

## Union and contact information

- Union name and local number
- Agent's name
- Address
- Phone number
- Email address

## Number of employees and contractor employees

- Number of employees at application site
- Number of temporary employees at site
- Number of contractor and subcontractor employees
- Number of applicable contractors (see Appendix A for definitions), including
- Subcontractors

## **Type of work performed and products produced**

Provide a comprehensive narrative explaining the work performed on site, types of products produced, types of hazards typically associated with your industry and the types of hazard prevention controls used. Applicants must include a site map.

## **North American Industrial Classification System**

Provide your six-digit North American Industrial Classification System (NAICS) code and/or your four-digit Standard Industrial Classification (SIC) code.

## **Injury and illness rates**

See Appendix A for definitions.

- Using information from your OSHA injury and illness logs (OSHA 300), complete and submit the appropriate rate table in Section V below.
- If you contract with applicable contractors, have Table 2 (one table for each applicable contractor) ready for review by the MNSTAR On-site Evaluation Team.
- Provide your site's three-year total case incidence rate (TCIR) for recordable nonfatal injuries and illnesses.
- Provide your site's three-year incidence rate for recordable nonfatal injuries and illnesses involving days away from work, restricted activity or job transfer (DART).

## **II. Employee support for MNSTAR Program participation**

Your application for MNSTAR Program participation must reflect the support of your employees.

### **Unionized workforce**

If at the time of application any of your employees are organized into one or more collective bargaining units, the authorized representative for each unit must either:

- sign the application; or
- submit a signed statement indicating the collective bargaining agent supports or is not opposed to MNSTAR Program participation.

Without such concurrence from all authorized agents, Minnesota OSHA (MNOSHA) will not accept the application.

### **Non-union sites**

At non-union sites, MNOSHA will verify employee support during the on-site evaluation when the MNOSHA MNSTAR Team interviews employees.

### III. Assurances

MNSTAR applications must include a signed statement affirming the following.

1. Compliance

You will comply with the Occupational Safety and Health Act (OSH Act) and will correct in a timely manner all hazards discovered through self-inspections, employee notification, accident investigations, MNOSHA on-site reviews or enforcement inspections, process hazard reviews, annual evaluations or any other means. You will provide effective interim protection as necessary to keep employees safe while corrections are being made.

2. Correction of deficiencies

You will correct any site deficiencies related to compliance with MNOSHA requirements and identified during any MNOSHA on-site review. You understand the correction period will be determined by the MNSTAR Team leader and will not exceed 90 days.

3. MNSTAR elements

Following approval, you will continue to meet/ maintain the requirements of the MNSTAR elements.

4. MNSTAR orientation

All employees, including newly hired employees, temporary employees and contractor or subcontractor employees, when they reach the site, will have the MNSTAR Program explained to them, including employee rights under the program and under the OSH Act.

5. Protection from discrimination

You will protect employees engaged in safety and health activities, including those employees specifically given safety and health duties as part of your safety and health management system, from discriminatory actions resulting from their activities and duties, just as Section 11(C) of the OSH Act and Minnesota Statutes 182.654 protect employees who exercise their rights.

6. Employee access to information

Employees will have access to the results of self-inspections, accident investigations and other safety and health management system data upon request.

At unionized sites, this requirement may be met through employee representative access to these results.

## 7. Documentation

To enable MNOSHA to determine initial and continued MNSTAR Program approval, you will maintain and make available for MNOSHA review the following information:

- your written safety and health management system;
- all documentation enumerated under Section VI.B.6.d of the Jan. 9, 2009, Voluntary Protection Program Federal Register notice; and
- any agreements between management and the collective bargaining agent(s) concerning safety and health.

## 8. Merit or on-year conditional goals

You will make available to MNOSHA any data necessary to evaluate the achievement of individual Merit or one-year conditional goals.

## 9. Annual submission

A. By Feb. 15 each year, you will submit the following information to your designated MNSTAR Program contact person.

- Injury and illness rates – Data reflecting all regular site employees, including temporary and contractor employees who are regularly intermingled with owner’s employees and under direct supervision by management. The data will consist of:
  - for the previous calendar-year, the site’s TCIR for all employees;
  - for the previous calendar year, the site’s DART rate for all employees;
  - the total number of cases for each of the above two rates; and
  - the hours worked and estimated average employment for the past full calendar-year.

B. Applicable contractor’s injury and illness rates – Participants will submit data about each applicable contractor. See Appendix A for the definition. The data will consist of:

- for the previous calendar-year, the site’s TCIR for each applicable contractor;
- for the previous calendar-year, the site’s DART rate for each applicable contractor;
- the total number of cases for each of the above two rates;
- the hours worked and estimated average employment for the past full calendar-year; and
- the appropriate NAICS code for each applicable contractor’s work at the site.

C. Annual self-evaluation – Submit a copy of the most recent annual safety and health self-evaluation, with current goals. Include a description of any success stories, such as reductions in workers’ compensation rates, increases in employee involvement and improvements in employee morale.

D. Organizational changes – Whenever significant organizational or ownership changes occur, you will provide MNOSHA within 60 days a new statement of commitment signed by both management and any authorized collective bargaining agents.

E. Union representation changes – Whenever a change occurs in the authorized collective bargaining representative, you will provide MNOSHA within 60 days a new signed statement indicating that the new representative supports MNSTAR Program participation.

## **IV. Safety and health system review**

The MNSTAR applicant's safety and health management systems must include methods of preventing employee fatalities, injuries and illnesses. Systems must be established through the ongoing planning, implementation, integration and control of four interdependent elements: management leadership and employee involvement; worksite analysis; hazard prevention and control; and safety and health training.

When answering the questions, describe your written safety and health management system, including safety and health policies, procedures, systems and programs. Answering the questions with a yes or no is not acceptable unless a separate full explanation is provided.

Answers provided must contain pertinent information that clearly explains the management and administration of the program, such as responsibilities and types of documentation maintained. Include those systems applicable to operations considered highly hazardous (for example lockout/tagout, confined space, process safety management) and those considered nonroutine.

### **Section 1. Management leadership and employee involvement**

1. Written safety and health management system
  - a. Are all of the elements of an effective safety and health management system (management leadership and employee involvement, worksite analysis, hazard prevention and control, and safety and health training) part of a signed, written document (safety policy, statement of commitment, etc.)? Provide a copy of this document or documents.
  - b. Is there a written safety program (which includes all of the elements of a safety and health management system) that addresses the hazards at the site? Provide details.
  - c. Have existing safety and health programs and policies been in effect for at least one year?

2. Management commitment and leadership
  - a. How does management demonstrate effective, visible safety leadership?
  - b. How is information about safety and health policies communicated to employees?
  - c. How is information about safety and health goals and objectives communicated to employees?
  - d. Do employees understand the safety and health goals and objectives? How has this been determined?
  - e. Provide examples of the safety and health goals and objectives the site has set.
  - f. How does the site measure its progress toward the safety and health program goals and objectives?
3. Planning
  - a. Is safety and health considered during the overall management planning process? Provide details about how safety is built into this process.
4. Authority and line accountability
  - a. Does top management accept ultimate responsibility for safety and health in the organization (top management acknowledges ultimate responsibility even if some safety and health functions are delegated to others)? How is this demonstrated? Is it documented (if so, in what documents)?
  - b. How is the assignment of authority and responsibility for safety and health documented and communicated (for example, organization charts, job descriptions, etc.)?
  - c. Do the individuals who are assigned responsibilities for safety and health have the authority to ensure hazards are corrected? How is this communicated and demonstrated?
  - d. How managers, supervisors and employees are held accountable for meeting their responsibilities for workplace safety and health (for example, annual performance evaluations, disciplinary procedures, etc.)?
  - e. What resources are dedicated to ensuring workplace safety and health (equipment, budget or experts)? How are these needs determined? How are they are planned for (for example, a budget dedicated to safety and health needs, safety as a line item on the site's annual budget, etc.)?
  - f. Are safety and health experts (for example, certified industrial hygienists, certified safety professionals, occupational nurses or engineers) available to the site? If so, under what arrangements and how often are they used?
5. Contractors

This section addresses applicable contractors and contractor employees working at the site, but not regularly intermingled with site employees or not supervised by site management. Employees regularly intermingled or supervised by site management are covered by the site's safety and health program. See Appendix A for definitions.

- a. Are contractors used at the site? If so, in what capacity (list all)?
- b. Describe your contractor safety program (selection, orientation and training, observation, adherence to safety and health rules and procedures, enforcement, etc.).

- c. Provide details about your contractor evaluation and qualification process. Does the process require an evaluation of the contractor's safety and health programs, including injury and illness rates?
  - d. Are contractors working at the site required to comply with MNOSHA and company safety and health rules? How is information about the company rules communicated to contractor employees?
  - e. Are there provisions in the contractor safety program for dealing with situations where a contractor fails to correct or control a hazard?
  - f. Does the site contractor safety program include provisions for oversight (observation of contractors while they are on site), coordination (when contractors and site employees will be working together on a project) and enforcement of safety and health rules and policies? How are these items documented and communicated to contractors?
  - g. Have the provisions of the program, specifying penalties for safety and health issues been enforced? Provide details.
  - h. How does the site monitor the quality of the safety and health protection of contractors while they are on site?
  - i. Are there procedures in place for dealing with contractors whose injury and illness rates are above industry average? How does the site ensure the effective protection of all employees working at the site?
  - j. Are contractors required to periodically submit injury and illness data? How often? Is the information analyzed?
6. Employee involvement
- a. How has information about the MNSTAR Program been communicated to the employees? Do the employees support the site's participation in the MNSTAR Program? How has this been determined?
  - b. What are the opportunities for employees to participate in the safety and health management system? Are they required to participate or do they have a choice?
  - c. With regard to safety and health, how have employees been included in the decision making process?
  - d. Do employees have access to results of self-inspections, accident investigations, appropriate medical records and personal sampling data? Provide details.
  - e. How are employees informed of the safety and health management system, and MNSTAR and OSHA rights and responsibilities? Please explain.
7. Safety and health management system evaluation
- a. Briefly describe the system in place for conducting annual evaluations. Include a copy of the most recent self-evaluation of your safety and health management system.
  - b. Does the annual evaluation address all aspects of a safety and health management system required by MNSTAR?
  - c. Is the annual evaluation used as a tool to continually improve the safety and health management system? How are recommendations for improvement documented and fulfilled?
  - d. Who conducts the annual evaluations?

- e. Explain the system used to communicate safety and health recommendations identified through the annual evaluations.

## Section 2. Worksite analysis

1. Baseline hazard analysis
  - a. Have the common safety and health hazards (such as those in MNOSHA regulations, building standards, etc.) been identified and documented? How? What hazards have been identified (provide a list)?
  - b. What methods of baseline hazard analysis have been performed? Include examples of instances when initial screening and full-shift industrial hygiene sampling have been used.
  - c. Is historical data relied upon to evaluate health hazards at the worksite? If so, were any operations identified that differed significantly from past experience and warranted additional analysis such as sampling or monitoring to ensure employee protection? If so, please describe.
  - d. Provide details about the sampling strategy used to identify health hazards and assess employees' exposure (based on process flow, toxicity, duration, route, frequency of exposure, number of employees affected and existing controls). How is the number of exposed employees determined?
  - e. What recognized procedures are followed when performing industrial hygiene sampling, testing and analysis?
  - f. What exposure limits (PELs, TLVs, etc.) are used for comparison to industrial hygiene sampling results?
  - g. Are industrial hygiene sampling records kept in a logical order (provide details)? What sampling information is recorded (for example, sampling time, date, employee, job title, work task, location, contaminant concentrations and calculations)?
  - h. When contractors are used for construction projects at the applicant's site, are hazard analyses conducted to address safety and health for each phase of work.
2. Hazard analysis of significant changes
  - a. When purchasing new materials or equipment, or implementing new processes, what types of analyses are performed to determine their impact on safety and health?
  - b. When implementing or introducing nonroutine tasks, materials or equipment, or modifying processes, what types of analyses are performed to determine their impact on safety and health?
3. Hazard analysis of routine activities
  - a. What system is in place to identify and analyze the safety and health hazards associated with routine operations and activities?
  - b. What hazard analysis techniques are employed for routine operations and activities (for example, job hazard analysis, HAZ-OPS, fault trees)? How are the findings from the analyses documented? Provide examples.

4. Routine Inspections
  - a. Describe the system for performing safety and health inspections. Is there a written procedure for performing routine inspections? Are results of routine inspections documented?
  - b. How often are safety and health inspections conducted? Is the entire site covered during each inspection? If not, how often is the entire site covered?
  - c. Is information discovered through baseline hazard analysis, job hazard analysis, accident or incident investigation, employee reports of hazard, sampling results, etc., used during the inspection process? How?
  - d. What are the training requirements for those participating in the inspection process?
  - e. Are the results of inspections documented? If so, provide examples.
  - f. Do inspection reports indicate what needs to be corrected, by whom and when? Are the corrections tracked to completion? If so, provide details.
5. Hazard reporting
  - a. Describe the methods available to employees for reporting safety and health concerns.
  - b. Is there a system in place for employees to notify management in writing about safety and health concerns?
  - c. Is there a system in place for employees to anonymously report safety and health concerns?
6. Hazard tracking
  - a. Describe the system for tracking hazard corrections to completion.
  - b. Are all identified hazards tracked to completion with feedback to employees for hazards they have reported?
  - c. If the hazard cannot be corrected immediately are interim protections established? If so, provide examples. How are employees notified?
  - d. Does the hazard tracking system address hazards no matter how they were identified (though hazard analysis, inspections, accident or incident investigations, etc.)?
7. Accident or incident investigations
  - a. Describe the system for conducting accident or incident (near-miss) investigations.
  - b. What are the training requirements for those conducting accident or incident investigations?
  - c. Do investigations discover and document all factors that contributed to the accident or incident? Provide examples of investigation reports.
  - d. Is there a reporting system for near-misses that includes tracking, etc.?
  - e. How are the results of accident or incident investigations used to improve the overall safety and health management system?
8. Trend analysis
  - a. How are injury and illness trends identified and assessed?

- b. What injury or illness trends have been identified during the past three years? What courses of action have been taken?
- c. What other information is assessed to identify trends (injury and illness reporting logs, first-aid reports, employee reports of hazard, accident or incident investigations, self-inspections, etc.)?
- d. Are the results of trend analyses shared with employees and management and used to direct resources, prioritize hazard controls and modify goals to address trends? If not, please explain.

### **Section 3. Hazard prevention and control**

Applicants and participants must be in compliance with any hazard control program required by an OSHA standard, such as personal protective equipment, lockout/tagout, confined space entry, process safety management and blood borne pathogens. MNSTAR applicants and participants must periodically review these programs (most OSHA standards require an annual review) to ensure they are up to date.

Applicants and participants that are covered by the process safety management standard must additionally submit answers to all applicable questions found in the MNSTAR PSM supplement. (Other supplements will be used during annual self-evaluations and OSHA on-site approval/re-approval visits.)

1. Hazard prevention and control
  - a. When selecting hazard controls, is the preferred hierarchy (engineering controls, administrative controls, work practice controls (for example, lockout/tag out, blood borne pathogens and confined space programs) and personal protective equipment) followed? Provide examples.
  - b. Describe all of the administrative controls used at the site to limit employee exposure to hazards (for example, job rotation, managing work hours, etc.).
  - c. Are the work practice controls (for example, lockout/tag out, blood borne pathogens and confined space programs) recommended by hazard analyses implemented at the site? If so, provide details.
  - d. Are follow-up studies, where appropriate, conducted to ensure hazard controls were adequate?
  - e. Are hazard controls documented and addressed in appropriate procedures (standard operating procedures), safety and health rules, inspections, training, etc.? If so, provide examples.
  - f. Describe the disciplinary system and how it is enforced equally for both management and employees. How are employees notified of the disciplinary system?
  - g. Are there written procedures for dealing with emergencies? If so, what types of emergencies are addressed (weather, fire, spills, workplace violence, etc.)?
  - h. How often are emergency drills conducted? What types of emergencies are practiced through drills? Are drills evaluated for effectiveness? Provide details.

- i. Describe the preventive or predictive maintenance system. Is it written?
  - j. What things are considered when determining when preventive maintenance on a machine, facility, etc. is required (manufacturers' recommendations, past experience)?
  - k. How is personal protective equipment selected?
  - l. Have employees been trained about the limitations, proper use, storage and maintenance of personal protective equipment? Do employees use personal protective equipment properly?
  - m. Is the site covered by the Process Safety Management (PSM) standard 29 CFR 1910.119 and 1926.64?
  - n. Which highly hazardous chemicals that trigger the PSM standard are present? The applicant must include which processes are covered and the quantity of the covered chemicals.
2. Occupational Health Care Program and Recordkeeping
    - a. Describe the occupational health care program, including the availability of physician services, first aid and CPR/AED (include information about special programs such as audiograms or other medical tests used).
    - b. How are licensed occupational health professionals used in hazard identification and analysis?

#### **Section 4. Safety and health training**

1. Describe the safety and health training requirements for managers, supervisors, employees and contractors. Who conducts safety and health training?
2. How are the safety and health training needs for employees determined?
3. Describe the system(s) in place that ensure all employees and contractors have received and understand the training?
4. Who is trained in hazard identification and analysis?
5. How has management gained a thorough understanding of the hazards at the site (for example, training, experience, observation, etc.)?

## **V. Injury and illness rates**

See Appendix B for instructions about calculating required rates and completing this section's tables; see Appendix C for an alternative rate calculation for qualifying small employers.

Injury and illness rate requirements

To qualify for MNSTAR status, both your three-year TCIR and your three-year DART rate must be below at least one of the three most-recent years of specific industry national averages for nonfatal injuries and illnesses at the most precise level published by the U.S. Department of Labor Bureau of

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Labor Statistics (BLS). MNOSHA will compare all submitted rates against the most advantageous single year that would qualify the applicant out of the past three published years.

If, after completing Table 1, you determine either your three-year TCIR, three-year DART rate or both are at or above your industry's average in all three comparison years, you still may qualify for MNSTAR participation at the Merit level. If this is the case, specify your short-term and long-term goals for reducing these rates to a level below the industry average, thereby achieving the MNSTAR rate requirements. Include specific methods you will use to address this problem. It must be feasible to reduce rates sufficiently within two years.

#### Alternative rate calculation

Some applicants, usually smaller employers with limited numbers of employees, contractors and subcontractors and/or hours worked, may use an alternative method for calculating incidence rates. Review Appendix C for more information.

Table 1: Site-based injury and illness rate calculations for general industry.

Table 1 tracks the injury and illness rates of all employees for whom the applicant has responsibility and authority for safety and health. These rates must be calculated from data that reflects the experience of all regular site employees, including temporary employees and any contractor employees regularly intermingled with your employees and under the direct supervision of your managers. Do not include applicable contractors in these rates.

MNOSHA considers the site's most recent three-year recordable injury and illness experience and compares that experience with industry averages published by the Bureau of Labor Statistics.

- Calculate your total recordable case incidence rate (TCIR) for each of the past three years and for the three years combined.
- Calculate your site's incidence rate for cases involving days away from work, restricted work activity and job transfer (DART) for each of the past three years and for the three years combined.

# Compare your rates with BLS national average rates to determine whether you meet Star or Merit rate requirements.

**TABLE 1. Site-based Recordable Nonfatal Injury and Illness Case Incidence Rates**

	A	B	C	D	E	F	G	H	I
Year	Total Work Hours	Total Number of Injuries	Total Number of Illnesses	Sum of Injuries and Illnesses	TCIR for Injuries and Illnesses	Total # of Injuries Involving DART	Total # of Illnesses Involving DART	Sum of Injury and Illness Cases Involving DART	DART Rate
Three years ago (annual)									
Two years ago (annual)									
Past year (annual)									
Three-year totals and rates									
BLS Rates for NAICS code _____									
Year 1 (Three years ago)									
Year 2 (Two years ago)									
Year 3 (past year)									
Percent above or below BLS national average									

Table 2: Site-based injury and illness rate calculations for applicable contractors

Site-based applicants and participants must maintain injury and illness rates for each applicable contractor. (See Appendix A for definitions.)

Fill in and maintain Table 2 for each applicable contractor. You need not submit these particular tables with your application. The tables must be available at the site for review by the MNSTAR Team.

In addition, approved participants must submit applicable contractor injury and illness data each year as part of their annual submission to MNOSHA.

<b>TABLE 2. Site-based Applicable Contractor Recordable Nonfatal Injury and Illness Case Incidence Rates</b>									
Name of contractor									
NAICS code for contractor’s work at your site									
	A	B	C	D	E	F	G	H	I
Year	Total work hours	Total number of injuries	Total number of illnesses	Sum of injuries and illnesses	TCIR for injuries and illnesses	Total # of injuries involving DART	Total # of illnesses involving days away DART	Sum of injury and illness cases involving DART	DART rate
Three years ago (annual)									
Two years ago (annual)									
Past year (annual)									

## Appendix A – Definitions

The following definitions apply to the use of these terms within MNOSHA's MNSTAR Program.

**90-day items** – Compliance-related issues that must be corrected within a maximum of 90 days, with effective protection provided to employees in the interim.

**Annual self-evaluation** – A participant's yearly self-assessment to gauge the effectiveness of all required MNSTAR Program elements and any other elements of the participant's safety and health management system.

**Annual submission** – A document written by a participant and submitted to MNOSHA by Feb. 15 each year, consisting of the following information: updated names and addresses; the participant's and applicable contractors' injury and illness case numbers and rates, average annual employment and hours worked for the previous calendar-year; a copy of the most recent annual self-evaluation of the participant's safety and health management system; descriptions of significant changes or events; progress made on the previous year's recommendations; Merit or one-year conditional goals (if applicable); any success stories; and any other information required by OSHA. In addition, participants covered by the process safety management (PSM) standard are required to respond to applicable questions from the annual MNSTAR PSM questionnaire.

**Applicable contractor** – An employer that has contracted with a general industry site-based applicant or participant to provide specified services and whose employees:

- worked at least 1,000 hours at the MNSTAR site-based applicant or participant's worksite in any calendar quarter within the past 12 months; and
- are not directly supervised in day-to-day activities by the applicant or participant's management.

The concept of applicable contractor does not include temporary employees or other contractor employees who are regularly intermingled with a site-based applicant or participant's employees and under direct supervision by management.

**Contractor employees** – Those individuals who are employed by a company that provides services under contract to the MNSTAR applicant or participant, usually at the MNSTAR applicant or participant's worksite.

**Days away, restricted or transfer case incidence (DART) rate** – The rate of all injuries and illnesses resulting in days away from work, restricted work activity or job transfer.

**Injury and illness rates** – Numerical rates that represent an applicant or participant's nonfatal recordable injuries and illnesses at an individual worksite. The rates are important factors when MNOSHA assesses an applicant or participant's qualification for MNSTAR.

**One-year conditional goal** – A target for correcting deficiencies in safety and health management system elements or sub elements identified by MNOSHA during the on-site evaluation of a Star participant. Such deficiencies, which indicate a site no longer fully meets Star requirements, must be corrected within 90 days and the participant must then operate at the Star level for one year for the participant's conditional status to be lifted. Failure to meet this requirement will result in termination from the MNSTAR Program.

Process safety management (PSM) – A reference to OSHA standard 29 CFR 1910.119 and 1926.64, which covers all employers that either use or produce highly hazardous chemicals exceeding specified limits.

PSM supplement A – Also known as the PSM application supplement or the static list, a series of questions designed to establish a basic understanding of a MNSTAR applicant’s PSM policies and procedures. Applicants covered by the PSM standard must submit responses to all questions on the PSM application supplement when they submit their written MNSTAR application.

PSM supplement B – Also known as the PSM annual questionnaire, is a document compiled annually by MNOSHA that uses selected questions from OSHA’s dynamic inspection priority lists, or dynamic question lists. The selected questions change from year to year. The PSM questionnaire must be completed and submitted to MNOSHA each year by MNSTAR Program participants covered under the PSM standard.

PSM supplement C – Also known as the PSM on-site evaluation questionnaire, comprises questions selected by the MNSTAR Team leader and PSM Level 1 or equivalent team members from the dynamic question lists. The questions are selected just prior to commencing a MNSTAR on-site evaluation and are presented to the MNSTAR applicant or participant during the evaluation. Normally, each applicant or participant covered by the PSM standard will receive a different set of questions at the time of the pre-approval on-site evaluation and then during each subsequent on-site re-evaluation.

Safety and health management system – A method of preventing employee fatalities, injuries and illnesses through the ongoing planning, implementation, integration and control of four interdependent elements: management leadership and employee involvement; worksite analysis; hazard prevention and control; and safety and health training.

Site-based participation – A category of MNSTAR participation characterized by fixed, ongoing or long-term work operations at a single facility. It is available to employers of private-sector, fixed worksites in general industry. These employers must control site operations and have ultimate responsibility for assuring safe and healthful working conditions.

Star program – The program within the MNSTAR Program designed for participants whose safety and health management systems operate in a highly effective, self-sufficient manner and meet all MNSTAR Program requirements. Star is the highest level of MNSTAR participation.

Temporary employees – Employees hired on a nonpermanent basis by the applicant or participant. Temporary employees are grouped with regular hires for purposes of calculating employer injury and illness rates.

Total case incidence rate (TCIR) – A number that represents the total nonfatal recordable injuries and illnesses per 100 full-time-equivalent employees.

## Appendix B – Injury and illness rate calculations and table instructions

Follow these steps to complete the injury and illness rate calculation tables.

1. Estimate total hours worked annually for each of the past three years. Include temporary and contract employees directly supervised by your supervisors. All sites must include all overtime and management staff member's total hours. Enter in the appropriate places in Column A; enter the three-year total at the bottom of Column A.
2. Enter the total number of recordable nonfatal injuries for each of the past three years in Column B; enter the three-year total.
3. Enter the total number of recordable nonfatal illnesses for each of the past three years in Column C; enter the three-year total.
4. For each of the past three years, combine the injuries and illnesses and enter in Column D. Combine the injury and illness three-year totals and enter.
5. Calculate your total case incidence rate (TCIR) for each of the past three years and for the three years combined. Enter in Column E. To calculate your TCIR, use the formula  $(N/EH) \times 200,000$  where:
  - a. N = sum of the number of recordable nonfatal injuries, plus illnesses in a given time frame (either one year for an annual rate or three years for a three-year combined rate);
  - b. EH = total number of hours worked by all employees in a given time frame (either one year for an annual rate or three years for a three-year combined rate); and
  - c. 200,000 = is the equivalent of 100 full-time workers working 40 hours a week, 50 weeks a year.

For example, to calculate your three-year combined TCIR:  $\text{Three-year TCIR} = \frac{[(\#inj + \#ill) + (\#inj + \#ill) + (\#inj + \#ill)]}{[\text{hours} + \text{hours} + \text{hours}]} \times 200,000$ .

6. Repeat steps 2 through 4, except substitute injuries and illnesses that resulted in days away from work, restricted work activity or job transfer. Enter in Columns F, G and H.
7. Calculate your incidence rate for days away from work, restricted work activity or job transfer (DART) for each of the past three years and for the three years combined. Enter in Column I. To calculate your DART rate, use the same formula as in step 5 above, except N = sum of the number of all recordable injuries, plus illnesses resulting in days away from work, restricted work activity or job transfer in a given time frame.
8. Compare your three-year rates with your industry's average rates for the three calendar-years published most recently by the Bureau of Labor Statistics (BLS). (BLS publishes rates by NAICS code each year in its Occupational Injuries and Illnesses Bulletin and at its website, [www.bls.gov](http://www.bls.gov).) To qualify for MNSTAR Star, both of your three-year rates must be below the same one year of the three most-recently published years of specific industry national averages for nonfatal injuries and illnesses, at the most precise level available.

9. If, after completing Table 1 or Table 3 you determine your three-year TCIR, DART rate or both are at or above your industry's average for the three years published most recently, you still may qualify for MNSTAR participation at the Merit level. If this is the case, specify your short-term and long-term goals for reducing your rates. Within two years you must achieve Star rate requirements; that is, you must reduce both of your rates to below the industry average for the same one year of the three years published most recently. It must be feasible to reduce your rates sufficiently. Include specific strategies and actions you intend to take to reduce your rates.
10. Applicable contractor injury and illness rates: Complete and maintain Table 2 for each applicable contractor at your site. (See Appendix A for definition.) You do not need to submit Table 2 with your application, but you must maintain these tables at your site so the MNSTAR Team can review them during your on-site evaluation.

## Appendix C – Alternative rate calculations for qualifying small employers

Some applicants, usually small companies with limited numbers of employees or hours worked, may use an alternative method for calculating their three-year incidence rates.

The alternative method allows the employer to use the best three out of the most recent four years of injury and illness experience.

To determine whether you qualify for the alternative rate calculation method, do the following.

1. Using your company's actual employment statistics, determine hours worked during the most-recent calendar-year by your employees. Include temporary employees.
2. Then calculate a hypothetical total case incidence rate (TCIR), assuming two recordable cases during the year.
3. Compare this hypothetical rate to the three most-recently published years of Bureau of Labor Statistics (BLS) incidence rates for nonfatal injuries and illnesses in your industry. Use the most precise available NAICS code level. If the hypothetical rate (based on two cases) is equal to or higher than the BLS national average for your industry in at least one of the three years, you qualify for the alternative calculation method. You may use the best three of the past four calendar-years of employee injury and illness experience when calculating both your three-year TCIR and your three-year DART rate.