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Safety Management Systems (SMS) & COVID-19

Recommended Citation for this Session: Friend, M., (2021, February 25). Finding Purpose: Safety Management Systems (SMS) & COVID-19 [Webinar]. University of Central Florida Rosen College of Hospitality Management.



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The content of this webinar was supported by grant number T42OH008438, funded by the National Institute Occupational Safety (NIOSH) and Health under the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the NIOSH or CDC or the Department of Health and Human Services.

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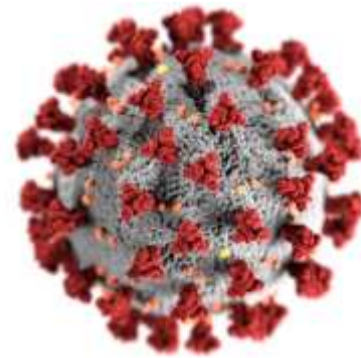
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SAFETY MANAGEMENT SYSTEMS (SMS) and COVID-19



Safety Management Systems (SMS)

- **SMS** is comprehensive and collaborative with the whole organization working together!
- It is both a methodology and philosophy
- SMS 4 Components:
 - **Safety Policy**
 - **Safety Risk Management**
 - **Safety Assurance**
 - **Safety Promotion**



Al Haynes, United Airlines Pilot

- 7/19/89 Captain of United Airlines Flight Denver->Chicago->Philly
- Flying a DC-10 with 296 passengers and crew
- At 37,000' rear engine exploded & shrapnel broke hydraulic lines
 - No control over flaps or rudders
 - Reduced left engine thrust
 - Diverted to Sioux City, Iowa for emergency landing
 - All steering done with right and left engines
- 184 people survived the crash landing



But SMS wasn't really in place then...

- Even prior to the formal introduction of SMS into the aviation industry, many of the steps were being implemented by those facing the hazards and related dangers in various industries
- SMS incorporate concepts of safety and quality management that have always been critical to mitigating workplace hazards
- What about Al Haynes and his application? What did he have to say?

What did AI say about when it happened?

- **Policy:** We had a policy in place. I brought the crew together and one other crew member flying in the passenger compartment, and we followed the SOPs, until we got to the end
- **Safety Risk Management (SRM):** “...Preparation...paid off. We had 103 years of flying experience there in the cockpit...if we had not let everybody put their input in, it's a cinch we wouldn't have made it.”
- **Safety Assurance:** In a simulation exercise, the airport and personnel had just recently practiced responding to a crash of a DC 10. They had practiced and it worked!
- **Promotion:** SOPs had been published. The flight crew, support personnel and on-the-ground responders had been trained and had practiced

So...How does this relate to Covid-19?

- Let's review each component of SMS and see what relationships we can find
- We'll begin by reviewing each and discussing how each one can be addressed to address the problem

Start by Considering how to Establish a Safety Policy

Think about how you can get everyone involved...*i.e. a safety committee*

- Can help develop policies
- May monitor performance and effectiveness
- May include stakeholders and significant others in the workplace:
 - Vendors
 - Customers
 - Employees & representatives throughout the organization
- Encourage all members to fully participate
- Avoid domination by upper levels of the hierarchy
- Get employees involved and aid in commitment toward goals



Establish the Safety Policy...It begins with a Statement!

Our organization is committed to maintaining and promoting a safe, healthy and injury free environment for all employees. This now addresses Covid-19.

- Signed off by CEO and possibly accountable executive
- Fully integrated into overall organization mission
- Is periodically reviewed and revised
- Addresses incorporation of an *Infectious Disease Preparedness and Response Plan*
- <https://www.osha.gov/sites/default/files/publications/OSHA3990.pdf> can help you develop this

Policy Statement Continued...

Overall

The plan will address measures **management** will be actively taking to mitigate the hazards, including the spread of Coronavirus. The management team is committed to providing a healthy and safe workplace for **all employees, clients, and visitors** (consider risk versus return).

Scope

The Coronavirus policy **will apply to all** of employees, clients, and visitors physically present in facilities.

Resources

The workplace will make **available necessary resources** (i.e. people, personal protective equipment (PPE) and facilities) to:

- Comply with all relevant health and safety rules
- Ensure health and safety of employees, clients, and visitors

Policy Statement (more)...

- Lists safety reporting procedures
- Indicates unacceptable behaviors
- Addresses a “Just Culture” to allow for *non-punitive reporting*
 - Mistakes may result from a faulty system, rather than simply by the individuals involved
 - People must feel free to report so when they see something, they say something—even if they are involved!

The Policy Statement will refer to The Overall Pandemic Plan...

- The PLAN will consider and address the level(s) of risk associated with various worksites and job tasks workers perform at those sites.

Considerations may include:

- Where, how, and to what sources of the virus might workers be exposed, including customers, and coworkers; and
- Sick individuals or those at particularly high risk, for example:
 - International travelers who have visited locations with widespread (ongoing) COVID-19
 - Employees who have had unprotected exposures to people known to have, or suspected of having, COVID-19)
- Non-occupational risk factors at home and community
- Individual risk factors (e.g., older age; chronic medical conditions, or pregnancy)
- **Controls necessary** to address the hazards and related risks

Plan will include Policies and Procedures for Prompt Identification and Isolation of Sick People (OSHA, 2020)

- Inform and encourage employees to self-monitor for signs and symptoms of COVID-19
- Develop policies and procedures for:
 - Employees reporting when are sick or experiencing symptoms
 - Immediately isolating those with signs and/or symptoms
- Ensure contract or temporary employees follow policies
- Address workers' concerns about pay, leave, safety, health, and other issues that may arise during infectious disease outbreaks through training, education, and informational material

The plan will also address..

- Basic infection prevention measures:
 - Promoting frequent and thorough hand washing, by providing workers, customers, and worksite visitors with a place to wash hands and/or use of alcohol-based hand rubs containing at least 60% alcohol
 - Encouraging workers to stay home if sick
 - Encouraging respiratory etiquette, including covering coughs and sneezes
 - Providing customers and the public with tissues and trash receptacles
 - Increasing physical distance among employees and between employees and others
 - Discouraging workers using others' phones, desks, offices, work tools and equipment when possible
 - Maintaining regular housekeeping practices, including routine cleaning and disinfecting of surfaces, equipment, and other elements of the work environment

What else?

- **Accountability** and **responsibility** are defined throughout the organization
 - This includes accountability for senior management and ALL employees
 - These are communicated throughout
 - It is built into the system
- Definition of methods and processes and organizational structure needed to meet goals
 - Generally using traditional line/staff OR matrix approaches to organization
 - Accountable executive maintains fiscal resources

What else?

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Policy Regarding *Accountable Executive (AE)* for Safety and Covid-19:

- Usually the Chief Operating Officer, but occasionally, the Chief Executive Officer—Someone near the top!
 - Typically in charge of safety & health within the organization (from a line perspective)
 - Regularly reports directly to the COO or a lower position, but maintains *direct access to the CEO* through committee or advisory roles
 - Controls and allocates resources
 - Ensures SMS implementation
 - Regularly reviews all performance



The AE will ensure the policy addresses:

- Prompt communication of critical information with:
 - Closed-loop
 - Strong upward flow
 - Easily accessible reporting, anonymous when needed
- Maintaining safety-critical decisions at every level
- Interdependent and integrated organization functions to facilitate cross-organizational communication AND cooperation
- Binding all contractors to safety policy through all agreements
- Continuous efforts to reduce variations in routine operations



Policy Regarding *The Safety & Health Professional*

- Must be competent with appropriate knowledge, skills, and experience to manage SMS
- Must be a direct line between this professional and accountable executive
- Ensures SMS is properly implemented
- **Monitors** effectiveness of safety risk controls
- Reports to accountable executive and **advises**
- Ensures appropriate safety *promotion*

Policy Permits **Zero Tolerance** for Unacceptable Behaviors

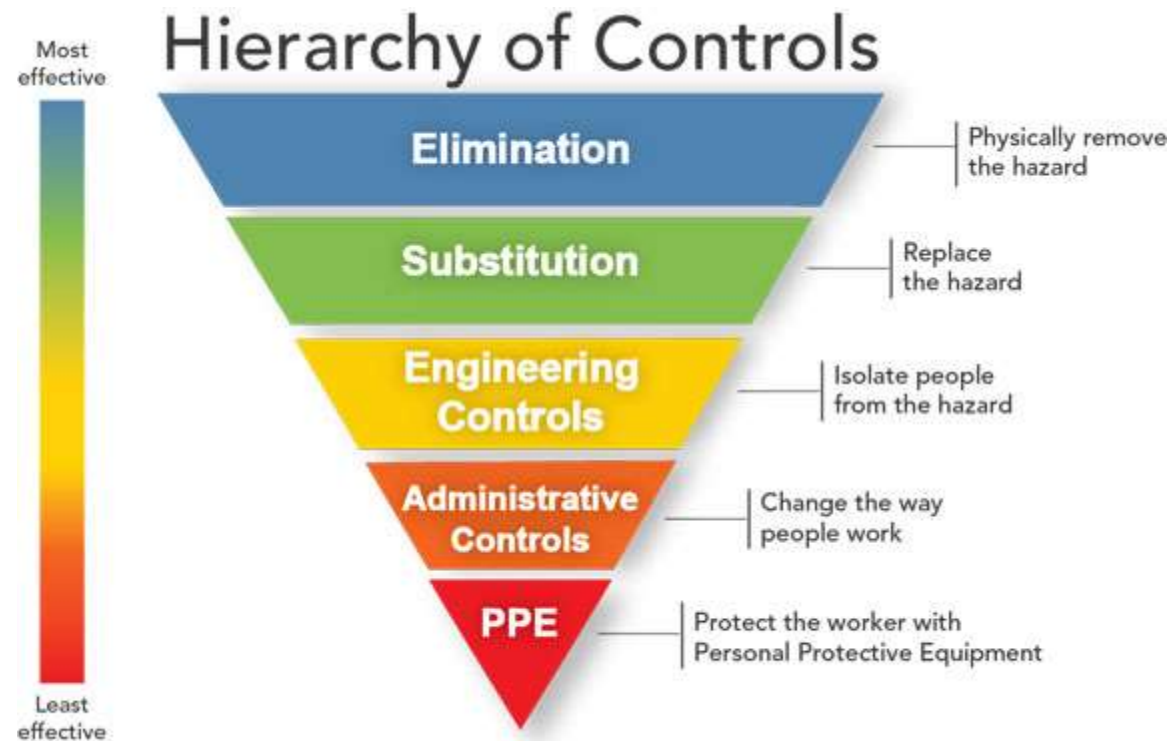
- Policy indicates acceptable and unacceptable behaviors
- Reporting is not a get-out-of-jail-free card
- Discipline clearly defined for unacceptable behaviors
 - Progressive
 - Red-Hot Stove rule (McGregor, n.d.)
 - Warning
 - Consequence
 - Consistent
 - Impersonal



Promotion—Get the Word Out!!!

- Formal notification by the CEO and AE
- Regular departmental talks
- Meetings
- Formal training & retraining
- Publications
- Emails
- Conversations up/down/across the organization

Implementing Workplace Controls for Covid



Safety Risk Management (SRM): Implementing Workplace Controls for COVID-19

- ***Engineering Controls***

- Installing high-efficiency air filters
- Increasing ventilation rates in the work environment
- Installing physical barriers, such as clear plastic sneeze guards

- ***Administrative Controls***

- Establishing social distancing methods
- Reducing number of employees or customers at a given time
- Discontinuing nonessential travel
- Developing emergency communications plans to answer worker concerns
- Providing current education and training on risk factors and protective behaviors

- ***PPE***

- Appropriate face coverings and hand covering:
 - Tight-fitting masks with multiple layers to cover mouth and nose
 - Plastic shields
 - Gloves

Safety Assurance: Monitor & Measure Performance

- Safety performance monitoring and measurement aids in “risk-informed decision making” and allows management to more effectively prioritize organizational actions and allocation of resources

Monitoring Regular Operations

Essential activities for monitoring of regular operations include:

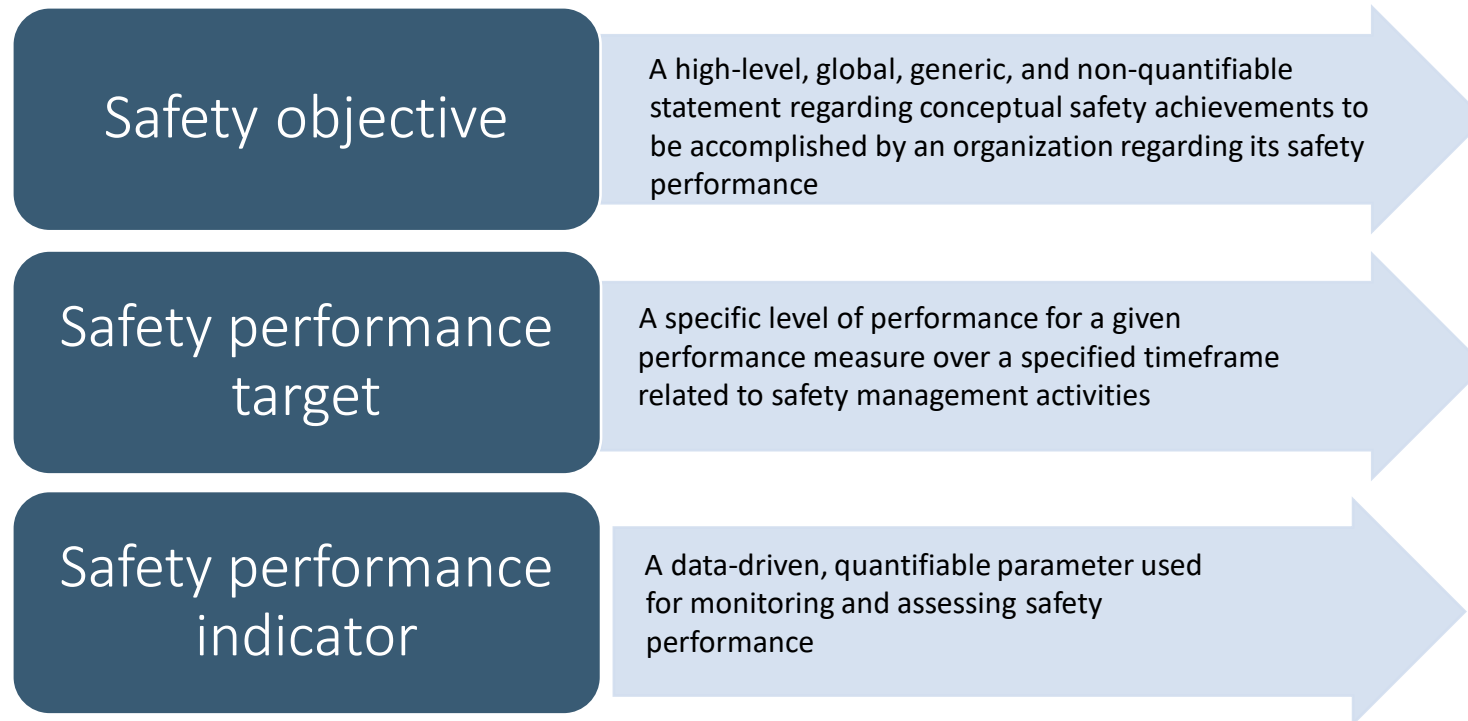
- Conducting regular work observations
 - Identifying actual practices, monitoring effectiveness of mitigation implementation, and identifying other operational safety and health concerns
- Conducting safety surveys, audits, studies, reviews, inspections, and investigations
 - Evaluating data and information from external agencies or peers

SRM: Establish Safety Objectives, Performance Targets and Indicators

- Safety objectives, performance targets and indicators:
 - Formally communicated throughout, as appropriate
 - Reviewed and updated periodically
 - Used to inform the allocation of resources
 - Consider ALARP
- Safety performance indicators are developed, based on both reactive and proactive data from performance monitoring activities

Safety Performance Measurement Criteria

- Key Terms for establishing safety performance measurement criteria:



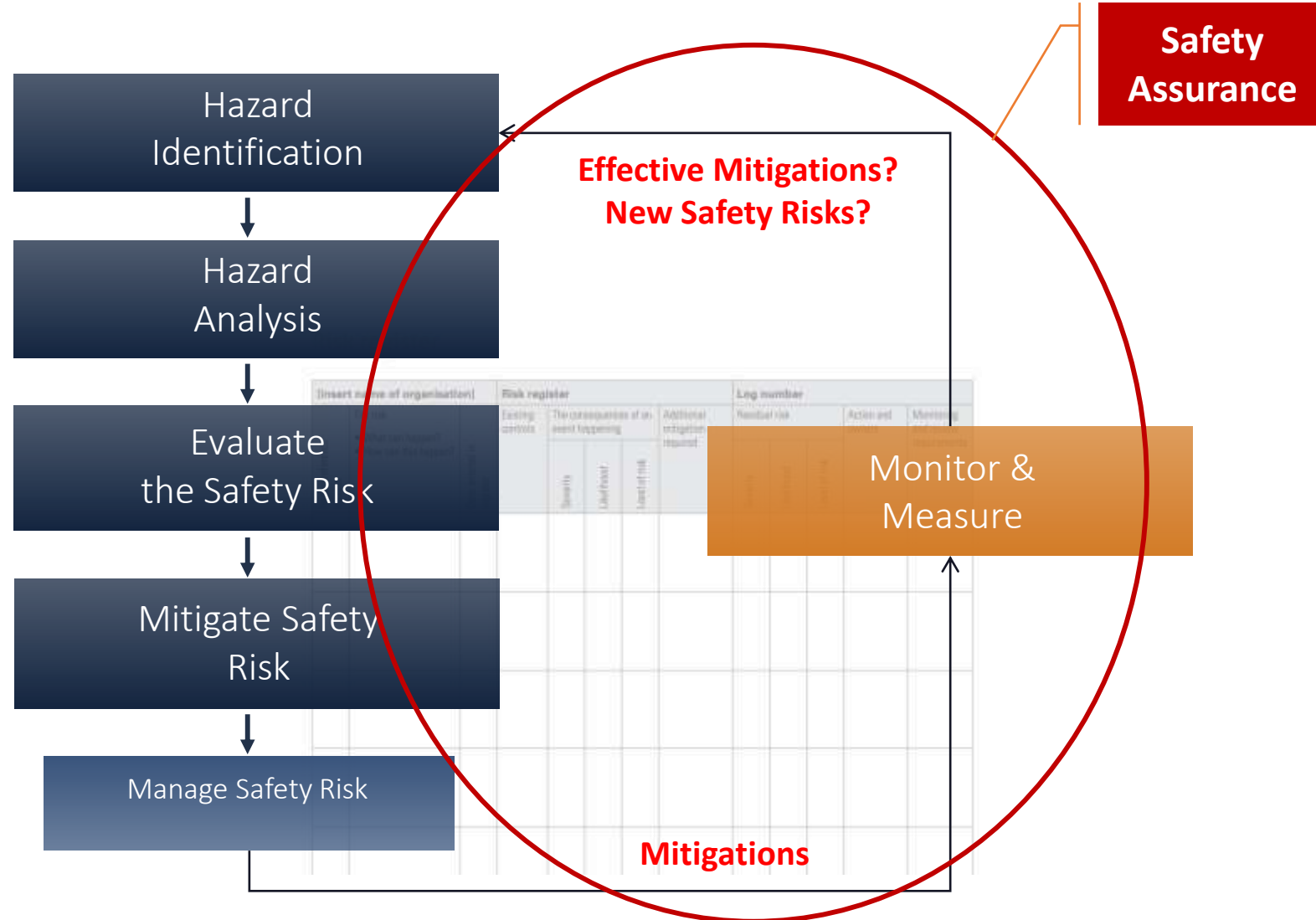
Example:

- **Covid-19 Objective 1:** Improve workplace safety and health through the proper use and care of PPE as required
- **Covid-19 Performance Target:**
 - Decrease in number of exposures due to lack of wearing of PPE
 - 80% compliance in Week 1, 90% compliance in Week 2, and 100% compliance going forward
- **Covid-19 Performance Indicators:**
 - Compliance based on announced field inspections
 - Compliance based on unannounced field inspections
 - Compliance found in any accident/near-miss/voluntary and other reports

Safety Assurance

- Provides evidence as to whether risk mitigations are performing as intended
- Constantly monitors individual and organizational safety performance
- Serves as a proactive source of safety performance data
- Identifies changes that may introduce new risk to operations

Relationship Between SRM and SA



SRM and the SA Process

- Without an effective SRM process, SA activities will not result in the outcomes associated with effective safety and health performance monitoring and measurement, namely the ongoing assessment of the effectiveness and appropriateness of safety risk mitigations

Example of Closed-loop SRM/SA Process

- 1) Assess risk(s) and agree on mitigations (**SRM**)
- 2) Set monitoring strategy (**SRM**)
- 3) Implement mitigations (**SRM**)
- 4) Monitor data to determine if mitigations are effective (**SA**)

The Closed-loop SRM/SA Process

(Cont'd)

- 5) Review information (audits/inspections, field observations, and accident/incident reports) (**SA**)
- 6) Assess safety risk reduction and the need for additional or improved mitigations (**SA**) (return to SRM as needed)
- 7) Follow-up on new mitigations (**SA**)

SRM and the SA Process (Cont'd)

- Are NOT dependent on one another, but to have a good SMS, they must be integrated and act in concert with one another

Five SMS Questions

- What are our most serious concerns?
- How do we know this?
- **What are we doing about it?**
- **Is what we are doing working?**
- **How do we know what we are doing is working?**



The Corona Virus...

- University of Southern California (2020, Dec. 10) reported:
 - The pandemic could result in net losses from \$3.2 to \$4.8 trillion in U.S. real gross domestic product (GDP) over the course of two years
 - In a worst-case scenario, as many as 1.75 million people could die from the pandemic in through February, 2022
 - Job losses could range from 14.7% to 23.8%, and in the worst case affects an estimated 36.5 million workers
- The CDC reports:
 - Nearly 30 million cases and almost 500,000 deaths (2/12/21)



OSHA Complaints

- OSHA (12/15/20):
 - Received 10,000 coronavirus-related complaints in FY 20 and investigated every complaint
 - Conducted 21,674 inspections in FY 20 in response to worker complaints, injuries and fatalities, and referrals impacted by the coronavirus
- As of the end of December, OSHA reported pandemic-related citations for more than 260 employers with more than 300 inspections. Fines totaled nearly \$4 million (US DOL, 2020)



What does OSHA say?

- Generally, no new legal requirements; however:
 - OSHA requires employers to assess the hazards to which their workers may be exposed; evaluate the risk of exposure; and, select, implement, and ensure workers use controls to prevent exposure
 - Control measures may include a combination of engineering and administrative controls, safe work practices, and PPE
 - Some OSHA standards, such as those for personal protective equipment (PPE) and respiratory protection, include these types of requirements



OSHA may contact you...

- Complaint(s) or referral(s): “the employer is notified of alleged hazard(s) or violation(s) by telephone, fax, email, or by letter,”
Additional modified procedures are listed below:
- Fatalities and imminent danger exposures related to COVID-19 will be prioritized for inspections, with particular attention given to healthcare organizations and first responders

Violations of the following can be classified as serious (Up to \$13,653 per):

- 29 CFR § 1904, Recording and Reporting Occupational Injuries and Illness
- 29 CFR § 1910.132, General Requirements - Personal Protective Equipment
- 29 CFR § 1910.133, Eye and Face protection
- 29 CFR § 1910.134, Respiratory Protection
- 29 CFR § 1910.141, Sanitation
- 29 CFR § 1910.1020, Access to Employee Exposure and Medical Records

Or the General Duty Clause...

- (1) The employer failed to keep the workplace free of a hazard to which **employees** of that employer **were exposed**
- (2) The **hazard** was **recognized**
- (3) The hazard was causing or was **likely to cause death or serious physical harm**
- (4) There was a **feasible and useful method to correct** the hazard

Evidence must prove all four elements!

So....If you want to address the Covid-19 problem using SMS...

- 1. ESTABLISH POLICY: ID this as a problem and get management onboard. Come to agreement on the approach with management
- 2. ESTABLISH YOUR SAFETY RISK MANAGEMENT APPROACH: ID how you are going to address the problem. Encourage participation throughout the organization to get all onboard
- 3. PUT SAFETY ASSURANCE IN PLACE. Monitor all methods throughout their lifecycle. Watch for changes and adjust accordingly
- PROMOTE! PROMOTE! PROMOTE! Stay on top of it by keeping the word current

To successfully implement an SMS...

- Establish expectations
- Engage personnel; get staff involved and committed to identifying safety risks
- Do a gap analysis with existing SMS to see what is missing and develop a customized SMS implementation plan – one which is relevant and appropriate to your organization
- Carefully review any actions and identify any potential new hazards or variations needing attention BEFORE implementation
- Consider risk vs. return!



And do you have any questions or comments???



NY Times Photo

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Recommended Citation for this Session:

Friend, M. (2021, February 25). Safety Management Systems [SMS] & COVID-19 [Webinar]. University of Central Florida Rosen College of Hospitality Management.