

## **EVALUATING SECURITY READINESS IN FOODSERVICE USING (SARA), SAFETY ANALYSIS RISK ASSESSMENT**

**Jim R. Haynes**

**Joe E. Beck**

**Eastern Kentucky University**

*Practitioners of modern foodservice must deal with emerging security concerns such as bioterrorism and workplace violence in addition to traditional concerns of protecting cash receipts and property from theft. Foodservice managers must provide security for customers, employees, and industry support personnel who frequent foodservices in the performance of their jobs. Food security, or biosecurity, involves protecting prepared food and the food supply from deliberate contamination by individuals bent on causing harm and injury. Security must be provided from the parking lot for customers throughout the facility to the back of the house exit used by employees. This paper examines security risks present in foodservice and describes an evaluation instrument called SARA, safety analysis risk assessment, which can be used to evaluate security readiness in foodservice.*

This paper examines security risks present in foodservice and describes an evaluation protocol called SARA, safety analysis risk assessment, which can be used to evaluate security readiness in foodservice. Family and Consumer Science educators teaching topics such as commercial foods, culinary arts, and quantity food preparation can use this information to help inform their students of the security risks that exist in the contemporary foodservice workplace, and about measures that can be taken to protect customers, workers, and others from security hazards such as terrorism, bioterrorism, violence, and criminal activity.

The attainment and maintenance of personal safety is one of the most basic drives of the human species. In his classic hierarchy of needs theory, Abraham Maslow rated the safety-seeking urge of man second only to the motivation to satisfy physical needs such as food and shelter (Spears & Gregorie, 2004). Safety is the state of being free from dangers, hazards, or risks that can cause hurt, injury or loss (Payne-Palacio & Theis, 2001). The state of being safe includes the bodily security of persons and their property from harm, injury or loss.

Security efforts in the restaurant industry were traditionally concentrated on the protection of cash and inventory from theft, burglaries, and pilferage by employees (Lydon, 1994). In recent years, however, threats of violence and terrorism have caused foodservice to shift the focus of attention on security more to the protection of customers and employees from violence and criminal acts (National Restaurant Association [NRA], 2003). In addition to threats to the bodily security of individuals and property in foodservice, there is the concern for the integrity of food and the food supply. Food security, or biosecurity as it is called by some Federal agencies, has to do with the danger of the intentional contamination of food with the intent to cause harm and disruption (Hume, 2004). Food is an easy target for bioterrorism because it can be easily contaminated through biological, chemical, physical, nuclear, or radioactive agents (NRA, 2003).

Foodservice enterprises are unique in the business world because they accomplish the entire business cycle of making their own products, marketing those products and providing

services, often under the umbrella of one single holistic organization (Spears & Gregorie, 2004). The first security concern apparent in foodservice is the protection of employees who provide food and service (Payne-Palacio & Theis, 2001). However, foodservice employees are not the only persons impacted by safety and security issues. Patrons come to a foodservice with the expectation of their own personal safety (Payne-Palacio & Theis, 2001). Customers are the reason any foodservice exists, and it is the job of both managers and foodservice employees to see to it that customers have a positive, secure, and safe experience (Reynolds, 2003). In addition to customers and foodservice workers, there are support personnel in foodservice such as vendors, maintenance workers, and service providers who must frequent food facilities in the performance of their jobs. These industry support personnel should be monitored for security clearance and their safety and security ensured (Food and Drug Administration [FDA], 2003).

Foodservice leaders in the 21<sup>st</sup> Century are faced with providing security to protect their staff, guests and assets from traditional threats like crime and violence, natural disasters, and the new threat of terrorism (Durocher, 2003; Prewitt, 2004). The first step to take to make provisions for the security of foodservice stakeholders is to devise a comprehensive safety-security plan (Durocher, 2003). Basic security preparations should include providing adequate lighting inside and outside buildings, quality locks, fire detection and suppression systems, and systems for security of cash and data (Durocher, 2003). Adequate lighting protects customers who come in the front entrance of a foodservice. Parking lots that are well lit minimize places where muggers might hide (Durocher, 2003). Employees who exit through the back of a facility can be protected with motion-activated lights that give advance warning of hidden danger (Durocher, 2003). The outside of a foodservice facility should be well groomed and the hedges trimmed close to prevent overgrowth around doors and windows that could be used for hiding places (Lydon, 1994). Depending on the level of threat, some security plans may need to include metal detectors at entrances and video surveillance equipment. Surveillance cameras can provide security for arriving guests by recording conditions in parking lots (Durocher, 2003). A camera aimed over the shoulder of an employee in a drive-through window can be a deterrent to both would be robbers and to dishonest employees. Integrated systems are available that can provide a high level of security for an establishment by detecting open doors or windows, surreptitious movement, and fire or smoke (Durocher, 2003).

For security measures to have maximum effectiveness, the employees of a foodservice must be involved in their use. Workers can be encouraged to become “safety police” if they realize their own well-being is improved by being alert and reporting suspicious activities and persons in the workplace. Worker participation can be enhanced by providing anonymous hot lines, secure email, or locked suggestion boxes. Reward programs can be set up for employees who provide tips that make management aware of dangerous or illegal activity, internal theft by employees, or collusion with suppliers.

Prior to the 1970's, the concept of violence in the workplace was virtually unheard of, but, since then, incidents of workplace violence have more than tripled (Mattman, 2004). Workplace violence initially came to public awareness as violence against employees and customers that occurred during hold ups and robberies (Jones, 2001). This definition of workplace violence changed in 1986 when a postal worker, in a murderous rage, killed 14 co-workers in Edmond, Oklahoma (Jones, 2001; Temple, 2000). From that and fifteen succeeding incidents involving postal workers, the term “going postal” became slang vernacular for employees who become violent on the job (Kaufer & Mattman, 2004; Mittlestadt & Enders, 2000). Violence on the job became the most urgent workplace safety concern of the 1990's,

prompting the Occupational Safety and Health Administration to organize a special task force to make recommendations to prevent the problem (Occupational Safety and Health Administration, 2004).

In the 21<sup>st</sup> Century, however, the danger of terrorism has replaced workplace violence as the most significant threat to safety in America (Prewitt, 2004). The vulnerability of heartland America to terrorism was demonstrated by the bombing of the Alfred P. Murrah Federal Building in Oklahoma City on April 19, 1995 (Leiser, 2002). Just four years later, on April 20, 1999, terrorism struck Columbine High School in Littleton, Colorado, where in the school cafeteria and library, 12 students and one teacher were killed and 23 were wounded (Kenworthy, 2004). The September 11, 2001 terrorist attacks on the World Trade Center in New York City took the lives of 2,996 persons, including 73 workers from the Windows on the World Restaurant (Spektor, 2004). The United States Government reacted to terrorism by creating the Department of Homeland Security in March 2003 to work toward protecting the security of citizens of the United States from incidents of terrorism (Homeland Security, 2004).

Retail employees are exposed to the risk of robbery because their jobs require frequent contact with the public, the exchange of money with customers, work be done alone or in small numbers, and frequent work during late night or early morning hours (Sygnatur & Toscano, 2000). Statistics from the Bureau of Labor Statistics (BLS) of the U. S. Department of Labor indicate that roughly three-fourths of workplace homicides occur during robberies and attempted robberies (Sygnatur & Toscano, 2000). Workplace homicides perpetrated by coworkers, former coworkers, lovers, customers, and acquaintances make up the remaining 25% of on the job murders (Sygnatur & Toscano, 2000). Bureau of Justice data for 1998 indicate that more than 80% of all homicides in the workplace are from shooting (Warchol, 1998). Beatings, stabbings and bombing account for the remaining 20% of homicides on the job (Warchol, 1998).

The most obvious place to begin protecting workers from violence on the job is to make facilities as secure as possible and to train crewmembers to protect themselves and others from violence from outsiders. OSHA made recommendations in 1998 and 2000 for facilities modifications that could reduce danger in retail establishments (DeLaurier, 2001). These facilities modifications include providing adequate lighting, installing mirrors, keeping signs and shelves low, installing drop safes and personal alarms, and installing bullet resistant enclosures (DeLaurier, 2001). Operational procedures OSHA recommends to reduce danger include locking doors that are not in use and increasing staffing during high-risk periods like the beginning and ending of the day (DeLaurier, 2001). Crewmembers should receive on-going periodic safety seminars that teach them how to protect their lives and the lives of others and to help deter the chance of robberies.

Protection of workers from violence at the hands of angry coworkers, spouses, lovers, customers, or acquaintances begins as a responsibility of top management (Sygnatur & Toscano, 2000). Top management can demonstrate its commitment to employee safety by implementing a program of violence prevention that includes actions such as threat assessment, prevention efforts, employee training and education, and incident reporting (Mattman, 2004). Management must be aware of the potential for violence in order to take action to prevent or eliminate it. Employee education through seminars and workshops help employees realize that bringing potentially dangerous behavior to management attention is in the best interest of everyone (Mattman, 2004). Employee wellness referral programs allow employees to address problems in their lives and can be a resource to salvage employee's careers (Kaufer & Mattman, 2004).

Management can help decrease the hazard of workplace violence by helping to provide security of workers from stalkers, by prohibiting guns from the workplace, and by taking precautions in the hiring and firing of employees (Mattman, 2004). The carrying of concealed weapons is now legal in more than 40 states, but the mere presence of a handgun tends to increase the potential for workplace violence (Kaufer & Mattman, 2004). Thorough screening of potential employees during the hiring process through background investigations can help to expose fraudulent information on applications and eliminate risky hires (Mattman, 2004). Informing potential applicants that random drug and alcohol testing is required of workers may cause some persons to forego the job application (Mattman, 2004).

Both the Federal Government and the foodservice industry are working to ensure the security of foodservice operations by responding to the threat of terrorism in the United States. The United States Department of Food and Drug Administration (FDA, 2003) has been working with the Department of Homeland Security and other federal agencies on the homeland security initiative. The Federal Anti-Tampering Act (18 USC1365) makes it a Federal crime to tamper with or taint, or to attempt, threaten, or conspire to tamper with or taint a consumer product (FDA, 2003). Conviction can lead to penalties of up to \$100,000 in fines and up to life imprisonment. The FDA has provided guidance for foodservices in establishing food security that can be accessed on the Internet at <http://www.cfsan.fda.gov/guidance.html>. The FDA Food Security Guidance document provides guidance on establishing food security by addressing five concerns: (a) management responsibilities, (b) staff, (c) customer access and surveillance, (d) security of facility, and (e) foodservice operational procedures.

The FDA Food Security Guidance document recommends that foodservice management evaluate existing crisis plans to make sure they address the potential of tampering with food, materials or data, and other malicious, criminal or terrorist actions. The guidance document suggests actions management should take to save lives during an emergency (FDA, 2003):

- Make plans for emergency evacuation of facilities.
- Be aware of emergency response capabilities in the local community.
- Publish to all management emergency contact information for local, state, and federal police, fire, rescue, health, and homeland security agencies.
- Make staff aware of whom in management to alert about potential security issues.
- Train all staff to be aware and alert to any breach of security or signs of tampering and other criminal activity.
- Develop an internal communication system.
- Provide appropriate supervision to all staff of the facility.
- Conduct periodic unannounced supervisory visits.
- Perform routine security checks of premises.
- Investigate every threat.
- Perform random food security inspections.
- Verify the work of security contractors.
- Alert appropriate law enforcement.
- Review and assess the effectiveness of the security program.

The security guidance plan suggests that the background of all staff, including new or seasonal staff, be reviewed for possible security concerns. A master list of employees who are on duty on the premises should be maintained that describes where the employees are supposed to

be located for each shift (FDA, 2003). Such a list could be critically important in case of bombing, fire, or natural disaster to help locate and rescue trapped crewmembers. Staff security can be enhanced through the use of a positive identification and recognition system. When employees leave an organization, the uniforms, nametag, and ID badge should be returned before an employee can receive their final paycheck. The level of access staff have to the parts of their facility should be regularly reviewed. Staff access to non-public areas should be restricted and closely monitored. Changing combinations, rekeying locks, and collecting the retired key card when staff leave an organization is also recommended. The type of personal items employees are allowed to bring to work should be restricted, particularly items that are kept in non-public areas. Unusual or suspicious behavior by staff should be noted and investigated. If atypical staff health conditions occur within a short time frame, it could indicate they have been victims of tampering.

The security guidance document recommends management monitor and regulate the activities of customers (FDA, 2003). Customers should be prevented access to non-public areas of the establishment such as food preparation, storage, dishwashing areas and loading docks. Public behavior should be monitored through security guards or video surveillance to attempt to detect any dangerous behavior. Other persons who have a reason or an occasion to frequent a food facility should also be monitored for security.

The physical security of a foodservice should be protected by monitoring the access points and activities inside the facility. Non-public perimeter access should be protected with fencing or other deterrent (FDA, 2003). Entrances into a facility such as doors, emergency exits, windows, roof openings, vent openings, and non-supervised areas that could be used for hiding should be inspected frequently and monitored closely. Metal clad and metal exterior doors give good protection to a facility when it is closed. Careful accounting for keys is one way to improve security. Good interior, exterior and emergency lighting can help detect suspicious or unusual activity. Access to building controls for utilities like airflow, water, electricity, and refrigeration should be limited. Control of parking so that customer, employee, and visitor parking is separated from entrances to non-public areas of the facility can improve security. Computer systems should be protected from the possibility of tampering, and equipped with appropriate clearance systems such as passwords, PIN numbers, and firewall protection (FDA, 2003).

Dangerous substances and chemicals are required for cleaning, sanitation, and maintenance functions in foodservice. The use and storage of dangerous and toxic substances should be limited as much as is possible (FDA, 2003). Poisonous substances and toxic chemicals should always be stored as far away from food handling and food storage areas as possible. Access to dangerous substances should be restricted to certified personnel and monitored closely.

The FDA guidance document suggests using only approved and licensed food sources (FDA, 2003). Suppliers and distributors should be made aware of FDA's food security guidance measures. Food delivery vehicles should be appropriately secured and deliveries should follow established schedules. Receiving personnel should be trained in proper purchase order receiving procedures and be suspicious of unexplained, unscheduled deliveries, or drivers, and investigate unusual occurrences. Off loading of all materials should be well supervised. Incoming shipping documents and products should be carefully examined for signs of tampering. Any suspicious food should be rejected at delivery. Proper storage practices should be followed that get received items into storage quickly to minimize opportunities for tampering. Systems should be in place that keep track of all incoming products as they flow through the foodservice system from receiving to storage to preparation, and, finally, to use.

The Educational Foundation of the National Restaurant Association (NRA) has produced a very helpful Food Security Guide that it sells to members, and is available on the Internet at [www.nraef.org](http://www.nraef.org) under the food security icon. The NRA publication considers (a) the possibility of intentional contamination of food; (b) illnesses or death from intentional contamination; (c) the business and financial impact of terrorism; (d) the different types of contamination agents possible for bioterrorism; and (e) strategies for prevention.

The stakes are high in providing a secure workplace in foodservice, and organizations are well advised to adopt a proactive approach rather than a reactive approach that waits for incidents to occur before taking action (Knight & Kotschevar, 2000). It is management's responsibility to make plans that ensure the safety and security of customers and workers from injury or harm, but it is the employees who must carry out the program. One of the goals of a well-planned safety program should be to motivate employees to participate in maintaining security by becoming "safety police." A safety analysis and risk assessment program can contribute to an effective security program if all levels of management and employees realize and understand its benefits. Attached to this paper is the security section of a safety assessment instrument for foodservice called SARA, the Safety Analysis Risk Assessment. SARA can be used to help detect the level of security readiness in foodservice.

## References


- DeLaurier, G. F. (Sep/Oct2001). Dying to serve you. *Dollars & Sense*, 237, pp. 27-30.
- Durocher, J. (May 2003). Better safe. *Restaurant Business*, 102(8), pp. 90-91.
- Fenn, D. (June 1996). The effects of workplace violence. *Inc.*, 18(8), p. 116.
- Food and Drug Administration. (November 2003). Guidance for industry: Retail food stores and foodservice establishment: Food security preventive measures. *U. S. Food and Drug Administration*. Retrieved from <http://www.cfsan.fda.gov/guidance.html>
- Homeland Security. (2004). Home page. *The White House*. Retrieved June 16, 2004 from <http://www.whitehouse.gov/homeland/index.html>
- Hume, S. (April 1, 2004). USDA, FDA issue food-security guides. *Restaurants & Institutions*, 114(8), p. 96.
- Jones, T. (Jan. 2001). Terror on the job. *Good Housekeeping*, 232(1), p. 114,
- Kaufers, S. & Mattman, J. W. (2004). *Workplace violence: An employer's guide*. Workplace Violence Research Institute, Retrieved June 9, 2004, from [http://www.workplaceviolence.com/articles/employers\\_guide.htm](http://www.workplaceviolence.com/articles/employers_guide.htm)
- Kenworthy, T. (Sept. 27, 2004). The Columbine High School Shootings. *USA Today*, News, p. 03a.
- Knight, J. B. & Kotschevar, L. H. (2000). *Quantity food production, planning, & management* (3<sup>rd</sup> ed.). New York: John Wiley & Sons.
- Lydon, K. (June 15, 1994). Seven tips for cheap but effective security. *Restaurants & Institutions*, 104(15), pp. 117.
- Leiser, K. (Oct. 21, 2002). Homegrown terrorism remains immediate danger. *St. Louis Post-Dispatch (MO)*. Item 2W71202885487.

- Mattman, J. W. (2004). *Preventing violence in the workplace*. Workplace Violence Research Institute, Retrieved June 9, 2004, from [http://www.workplaceviolence.com/articles/preventing\\_violence.htm](http://www.workplaceviolence.com/articles/preventing_violence.htm).
- Mittlestadt, M. & Enders, C. K. (August 31, 2000). Study finds postal workers less angry than other U.S. workers. *Dallas Morning News*. Item 2W73309274457
- National Restaurant Association (2003). Food Security. *Educational Foundation of the National Restaurant Association*, Retrieved June 17, 2004 from <http://www.nraef.org/foodsecurity/>
- Occupational Safety and Health Administration. (2004). OSHA Facts. Retrieved from <http://www.osha.gov/homepage.html>
- Payne-Palacio, J. & Theis, M. (2001). *West & Wood's introduction to foodservice* (9<sup>th</sup> ed.). Prentice-Hall: Upper Saddle River, N. J.
- Prewitt, M. (May 24, 2004). The 7 cardinal sins of foodservice: Failure to make safe haven for staff risks harm to bottom line. *Nations Restaurant News*, pp. 62-64.
- Reynolds, D. (2003). *On-site foodservice management*. New Jersey: Wiley.
- Sygnatur, E. F. & Toscano, G. A. (Spring 2000). Work-related homicides: The facts. *Compensation and working conditions*, pp. 3-8.
- Spears, M. & Gregorie, M. (2004). *Foodservice organizations: A managerial and systems approach*, (5<sup>th</sup> ed). Pearson Education, Inc: Upper Saddle River, N. J.
- Spektor, A. (2004). September 11, 2001 victims: Site statistics. Retrieved June 15, 2004 from [http://www.september11victims.com/September\\_11victims/STATISTIC.asp](http://www.september11victims.com/September_11victims/STATISTIC.asp)
- Temple, P. (Oct. 2000). Real danger and 'postal' mythology. *Workforce*, 79(10), p. 8.
- Warchol, G. (July 28, 1998). Workplace violence, 1992-1996. *Bureau of Justice Statistics*. Retrieved June 9, 2004 from <http://www.ojp.usdoj.gov/bjs/pub/press/wv96.pr>

### **About the Authors**

Jim R. Haynes, EdD, RD, LD has been Assistant Professor in the Department of Family and Consumer Sciences at Eastern Kentucky University, Richmond, Kentucky. Joe E. Beck, M.A. Public Administration, is Associate Professor in the Environmental Health Sciences Department at Eastern Kentucky University, Richmond, Kentucky.

**(SARA) Safety Analysis Risk Assessment Form**

Item Number						SECURITY
5 Severe Risk						<a href="#">Fact Sheet Access</a> <a href="#">Click Here</a> 
4 Immediate Risk						Assessor Name _____ Date _____ 04
3 Moderate Health Risk						Assessor I. D. Number _____
2 Requires Attention						
1 No Action Suggested						
1	5	4	3	2	1	Is Non-public Perimeter Access Protected with Fencing or Locked Gates?
2	5	4	3	2	1	Is Access Secure: Are Exterior Doors Strong, Metal, Metal-Clad/Kept Locked?
3	5	4	3	2	1	Are Only Authorized Personnel Admitted to work areas: Proof of Identity?
4	5	4	3	2	1	Is there Electronic Surveillance of Unsupervised Areas?
5	5	4	3	2	1	Are there Restrictions to Levels of staff access to Unsupervised Areas?
6	5	4	3	2	1	Are type of personal items allowed in Non-public Areas in Facility Restricted?
7	5	4	3	2	1	Are incoming/Outgoing/Suspicious/Inappropriate/Unusual Packages inspected?
8	5	4	3	2	1	Is there appropriate supervision/unannounced visits/routine security checks?
9	5	4	3	2	1	Are utilities and critical computer data systems monitored for signs of tampering?
10	5	4	3	2	1	Is there a program for investigating threats; alerting appropriate law enforcement?
11	5	4	3	2	1	Is there a safety/security program? Is the program evaluated at least annually?
12	5	4	3	2	1	Are all new hires screened for background, drug or alcohol use?
13	5	4	3	2	1	Is there a list of all employees with telephone/address for activating phone tree?
14	5	4	3	2	1	Are there shift lists to account for who is/should be on premises/where located?
15	5	4	3	2	1	Is there a system of positive identification and recognition/ name tag/ ID card?
16	5	4	3	2	1	Are uniforms, nametags, ID badges collected when an employee terminates unit?
17	5	4	3	2	1	Is staff access to non-public parts of facilities limited?
18	5	4	3	2	1	Are staff that require unlimited access identified?
19	5	4	3	2	1	Are combinations changed, locks rekeyed due to retirement/termination?
21	5	4	3	2	1	Are personal items restricted? Are there metal mesh lockers?
22	5	4	3	2	1	Is staff trained to protect security, e.g. not to give out sensitive/personal info?
23	5	4	3	2	1	Is unusual or suspicious behavior by staff watched for/ noted/ investigated?
24	5	4	3	2	1	Are signs of atypical staff health conditions noticed and investigated?
25	5	4	3	2	1	Are public areas monitored including entrances and restrooms?
26	5	4	3	2	1	Is access and entry by industry support personnel restricted/monitored?
27	5	4	3	2	1	Are all keys for establishment accounted for: issuing, tracking, retrieving?
28	5	4	3	2	1	Are places Minimized in non-public areas that can be used for hiding?
29	5	4	3	2	1	Is there adequate interior/exterior/emergency lighting?
30	5	4	3	2	1	Is there a system of controlling vehicle/authorization/parking in non-public areas?
31	5	4	3	2	1	Is use/stocking of poisonous and toxic chemicals limited as much as possible?
32	5	4	3	2	1	Are poisonous and toxic chemicals stored away from food/food handling areas.
33	5	4	3	2	1	Is access limited to storage of poisonous and toxic chemicals not for retail sale?
34	5	4	3	2	1	Are updated MSDS forms available in both work areas and administrative offices?
35	5	4	3	2	1	Is access limited to controls for airflow, water, electricity and refrigeration?
36	5	4	3	2	1	Is there a computer security system; a system to trace computer transactions?
37	5	4	3	2	1	Is access to critical computer data systems restricted to those with clearance?
38	5	4	3	2	1	Is access to computer systems eliminated when staff member leaves organization?
39	5	4	3	2	1	Are there computer security/virus protection systems in place?
40						
41						
42						
43						

## SARA (SAFETY ANALYSIS RISK ASSESSMENT) FOR FOODSERVICE

### Theoretical Framework

Objective: Freedom of customers, employees, and industry support personnel from unsafe conditions, unsafe procedures, and the security threats of workplace violence and terrorism.

