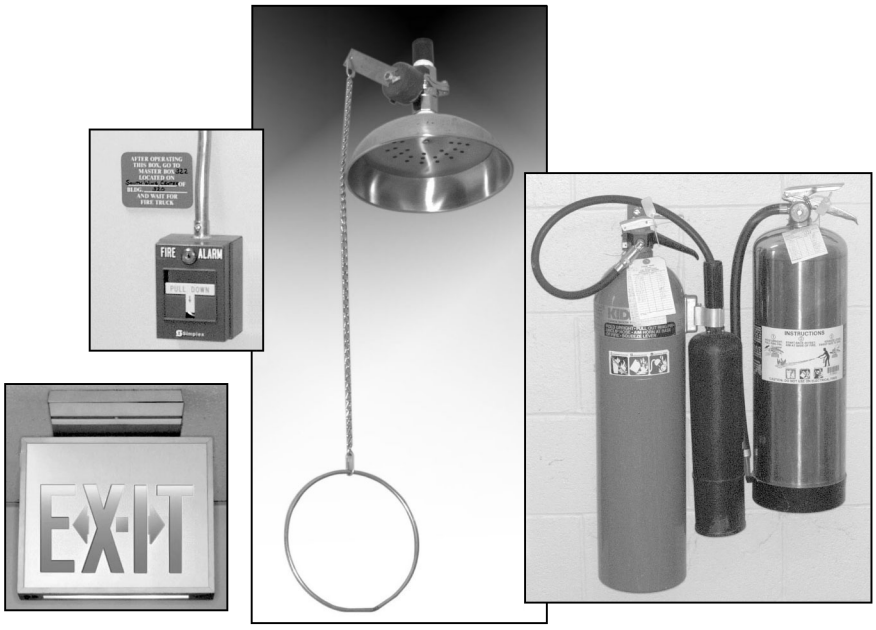
Environment

INFORMATION FROM KODAK

J-316 $14.00

Emergency Preparedness for Photographic Processing Facilities



An emergency is an unexpected event that demands your immediate attention. While no photographic processing business plans to have emergencies, each should plan for them. Such advanced planning will:

- help eliminate or at least minimize potential injuries to employees and others
- reduce the chance of equipment and product damage, and
- minimize operation downtime

You and your employees must be prepared to act quickly and effectively. With the proper emergency response procedures in place and adequate training, the unexpected, unwanted event can be managed so that there is minimal disruption to your operation, and most importantly, human life tragedies are avoided.

This publication will introduce you to some of the basics of preparing for workplace emergencies. You will learn how to avoid potential emergency situations by implementing accident prevention and fire

Kodak's health, safety, and environmental publications are available to help you manage your photographic processing operations in a safe, environmentally sound and cost-effective manner. This publication is part of a series of publications on health and safety issues affecting photographic processing facilities. It will help you prepare for a workplace emergency.

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prevention programs. In addition, you will receive information to help you develop an emergency plan so you and your employees are prepared in case an emergency does occur. The following topics are discussed in this publication:

ACCIDENT PREVENTION

FIRE PREVENTION

EMERGENCY RESPONSE ACTIVITIES

While most of this information simply makes good sense, much of it is also required by federal and some state and local laws. Throughout this publication, the elements that must be included in your Health and Safety Program to comply with regulations under the federal Occupational Safety and Health Act (OSHA) are highlighted in *"Review"* boxes. Checklists are also provided so that you can perform a self-audit to help determine your facility's level of compliance and preparedness. For information on managing medical emergencies, refer to KODAK Publication No. J-317, *Injury and Illness Management for Photographic Processing Facilities*.

ACCIDENT PREVENTION

The occurrence of an accident is often preventable. An accident management program begins with up-front planning and the identification of possible hazardous situations. Eliminating the potential for accidents before they occur is the safest and most efficient way of dealing with them. While OSHA does not specifically require you to develop an Accident Prevention Plan (APP)[1], such a plan will reduce the risk of a workplace accident and, therefore, is recommended. Even a low risk workplace such as a photographic processing facility would benefit from having a written plan that addresses the prevention of accidents at the work site. If you have more than one facility, you should consider a plan for each site.

1. OSHA may develop regulations that require businesses to implement health and safety plans. Some states already require them. Contact your local and state authorities to confirm your specific requirements.

The plan should describe how you're going to ensure the safety of people, including employees, visitors and customers, and how you're going to protect your property and product. The table "Elements of an Accident Prevention Plan" lists recommended elements for an APP.

Elements of an Accident Prevention Plan*

- Hazard assessment†
- Health and safety (environment) participation
- Accident prevention policy
- Health, safety and environment review
- Routine inspections
- Safe operation of equipment†
- Safe chemical handling†
- Lone operator policy
- Personal protective equipment†
- Eyewash units and emergency showers
- Accident prevention signs and tags and safety colors†
- Employee training†

* Some of the elements in this table are suggestions. You may modify these elements based on the specific needs of your facility.

† These elements are specifically required by OSHA.

HAZARD ASSESSMENT

The first step in developing your APP is to walk through your facility to look for situations that may contribute to a hazardous condition. These conditions are a major source of accidents. Look at how chemicals are stored, used and disposed of, how equipment is operated, whether employees have and properly use personal protective equipment, and whether the facility is clean and orderly with aisles that are clutter-free. Also review all equipment training programs that you have in place. Do they address how to operate film or paper processors in a safe manner? Are emergency exits clearly marked and accessible?

Ask your employees to help you identify all conditions that they believe are unsafe or not healthy. Your workforce is a great resource for this task. For more information on performing a hazard assessment, refer to KODAK Publication No. J-312, *Personal Protective Equipment Requirements for Photographic Processing Facilities.*

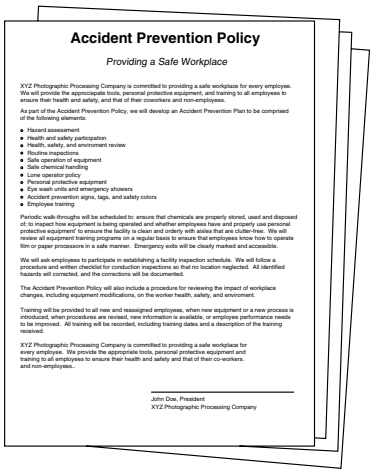
4 Review

- Perform and document a facility hazard assessment.
- Refer to J-315 for additional hazard assessment requirements.

HEALTH AND SAFETY PARTICIPATION

Although it is not a federal requirement under OSHA, one of the best ways to get employees involved in creating a safe work environment is through their participation in health and safety (and environment) evaluations. As one of their first orders of business, the employees can work with you to establish a facility inspection schedule. They can also support your efforts to develop the APP. Consult with your legal representatives to determine the appropriate means to have your employees participate in facility evaluations.

ACCIDENT PREVENTION POLICY



Accident Prevention Policy

Providing a Safe Workplace

XYZ Photographic Processing Company is committed to providing a safe workplace for every employee. We will provide the appropriate tools, personal protective equipment, and training to all employees to ensure their health and safety, and that of their coworkers and non-employees.

As part of the Accident Prevention Policy, we will develop an Accident Prevention Plan to be comprised of the following elements:

- Hazard assessment
- Health and safety participation
- Health, safety, and enviroment review
- Routine inspections
- Safe operation of equipment
- Safe chemical handling
- Lone operator policy
- Personal protective equipment
- Eye wash units and emergency showers
- Accident prevention signs, tags, and safety colors
- Employee training

Periodic walk-throughs will be scheduled to: ensure that chemicals are properly stored, used and disposed of; to inspect how equipment is being operated and whether employees have and properly use personal protective equipment' to ensure the facility is clean and orderly with aisles that are clutter-free. We will review all equipment training programs on a regular basis to ensure that employees know how to operate film or paper processors in a safe manner. Emergency exits will be clearly marked and accessible.

We will ask employees to participate in establishing a facility inspection schedule. We will follow a procedure and written checklist for conduction inspections so that no location neglected. All identified hazards will corrected, and the corrections will be documented.

The Accident Prevention Policy will also include a procedure for reviewing the impact of workplace changes, including equipment modifications, on the worker health, safety, and enviroment.

Training will be provided to all new and reassigned employees, when new equipment or a new process is introduced, when procedures are revised, new information is available, or employee performance needs to be improved. All training will be recorded, including training dates and a description of the training received.

XYZ Photographic Processing Company is committed to providing a safe workplace for every employee. We provide the appropriate tools, personal protective equipment and training to all employees to ensure their health and safety and that of their co-workers. and non-employees.

John Doe, President
XYZ Photographic Processing Company

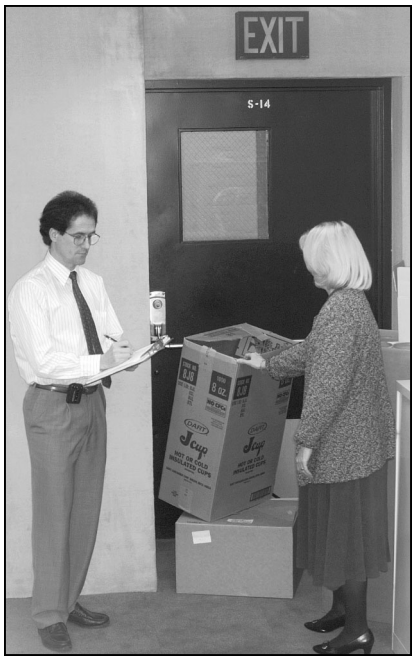
The leading component in the plan should be an Accident Prevention Policy. It should be a clear and simple statement from company management outlining your company's position on providing a safe workplace. All that you and your employees do to be proactive toward accident prevention should be reflected in this policy. For example: *"XYZ Photographic Processing Company is committed to providing a safe workplace for every employee. We provide the appropriate tools, personal protective equipment and training to all employees to ensure their health and safety and that of their co-workers, and non-employees."*

HEALTH, SAFETY AND ENVIRONMENT REVIEW

The APP should include a procedure for reviewing the impact of workplace changes—including equipment modifications—on worker health, safety and the environment. For example, if a film processor is altered or a new one is purchased, you should review the change from a safety perspective. Ask such questions as, *"Does the change expose the employees to a new hazard?" "Do employees do anything differently than they were doing before?" "Does the equipment require additional guards?"* If you produce hazardous waste in your operation, you should ask, *"Do special procedures need to be developed to handle this waste properly?"* If you answer "yes" to these types of questions, at a minimum you must provide training to your employees. You may also have to develop additional operational procedures to ensure the safety of your personnel and compliance with regulations.

ROUTINE FACILITY INSPECTIONS

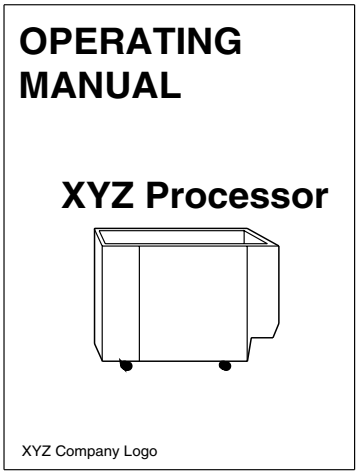
Routine inspections will many times reveal problems before they become accidents. Develop a procedure and a written checklist for conducting the inspections to ensure that no location or activity in your operation is neglected. The self-assessment checklists found in a series of environmental publications from Kodak are a good place to start. See page 19 for the list of publications available from Kodak. Be sure your inspection procedure includes a process for correcting all identified hazards.



One of the key items to focus on is good housekeeping. A clean and orderly workplace is *not* typically prone to accidents. Keep aisles and walkways clear and all doorways and emergency exits free from obstruction. Check that chemicals are properly stacked and stored to minimize the risk of container damage and chemical leaks. Make good housekeeping an integral part of everyone's job. Inspect for it periodically, but practice it daily.

Share the results of the facility inspection with all employees. Encourage them to take ownership of workplace health and safety by asking employees to offer recommendations to improve safety. Make sure your procedure includes follow-up on employee suggestions and recommendations.

SAFE OPERATION OF EQUIPMENT



Most of the time, equipment manufacturers will develop equipment manuals that contain guidelines for safely operating their machines. Employees should read and understand this information before they operate any piece of equipment. This should be considered part of their equipment operation training program. Additional training may also be necessary. A copy of the manual should always be kept readily available for employees. Keep one close to the equipment for their use.

If there is no manual for the equipment, or if it does not include safe operating procedures, you should consider creating the information. Contact the equipment manufacturer and request their input on safety issues. It is also a good idea to involve the employees who will operate the equipment in the manual development.

These procedures should address:

- general machine safety principles;
- guidelines to operate the specific equipment safely;
- machine safeguarding (as necessary);
- electrical safety

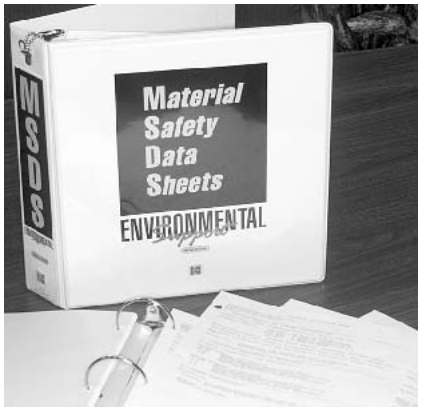
If you need assistance in developing your safe operating procedures, you can use other equipment manuals as your model.

4 Review

- Ensure that all equipment has safety procedures associated with its use.
- Machine operators must be trained to operate all equipment safely.

SAFE CHEMICAL HANDLING

Even though photographic processing chemicals are generally considered a low hazard and some can be purchased in the small "kit" format, operators must still handle them correctly. Develop safe chemical handling procedures using clear, simple language. Post the procedures in areas where chemicals are mixed, used and stored. You can have the information laminated to protect it from the elements.



Safe chemical handling is also an important part of OSHA's Hazard Communication Standard, sometimes called "right-to-know." Under this standard one of the main communication tools on chemical safety is the Material Safety Data Sheet (MSDS). Be sure that you obtain a MSDS for each chemical in your inventory. If you need a MSDS for any Kodak product, call the Kodak Information Center at 1-800-242-2424, ext. 25.

Another communication tool is container labels. Make sure all containers of hazardous chemicals are properly labeled. For more information, refer to KODAK Publication No. J-311, *Hazard Communication for Photographic Processing Facilities*, and J-98A, *Safe Handling of Photographic Processing Chemicals*.

If you have flammable liquids or compressed gases in your facility, you need to use very specific handling procedures. For more information about these materials, refer to KODAK Publication No. J-315, S*pecial Materials Management in Photographic Processing Facilities*.

4 Review

- Obtain MSDSs for all chemicals.
- Ensure that all containers of hazardous chemicals are properly labeled
- Develop safe handling procedures for all chemicals.
- Provide training for all employees who work with or around photographic processing chemicals.
- Refer to J-311, J-98A, and J-315 for additional chemical handling information and requirements.

LONE OPERATOR POLICY

You should consider implementing a company policy stating that employees must not work alone on hazardous tasks unless special arrangements have been made. For example, if working alone is unavoidable, the employee who is performing the hazardous task must call or check in at prearranged times with another employee.

It is best to eliminate this type of working situation whenever possible. Even with special check-in arrangements scheduled, working alone under hazardous conditions should not be encouraged in the workplace.

PERSONAL PROTECTIVE EQUIPMENT

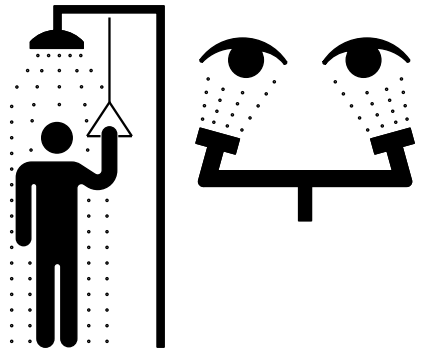
Material Safety Data Sheets typically list the recommended personal protective equipment (PPE) for use with the chemicals. When working with photographic processing chemicals, employees should wear appropriate PPE such as splash-proof goggles, a chemically impervious apron and gloves. It is your responsibility to provide employees with PPE, maintain it in good working condition, train employees how to use it properly, and then make sure they wear it. In the Accident Prevention Plan, explain the company policy on PPE and how that policy is implemented.

For detailed information about PPE, refer to KODAK Publication No. J-312, *Personal Protective Equipment Requirements in Photographic Processing Facilities*.

4 Review

- For all employees who have direct contact with chemicals in the course of their jobs:
  - supply them with the appropriate PPE
  - maintain it in good working order
  - train employees to wear and use PPE correctly
  - ensure employees use it properly when they are handling chemicals
- Refer to J-312 for additional PPE requirements.

EYEWASH UNITS AND EMERGENCY SHOWERS



In addition to providing employees with PPE, you must review the MSDSs to see if any of the chemicals you use are corrosive. If there is a risk that an employee can directly contact an injurious, corrosive material, you must provide quick drenching or flushing emergency equipment such as an eyewash or body shower unit.

For photographic processing chemicals, the minimal requirement listed on most MSDSs is an emergency eyewash, in case chemicals are splashed in or around the eyes. When making the decision about what type eyewash station to install in your workplace, consider the relative strength of the corrosive materials (i.e., chemical concentrates versus working strength solutions).

The table"Emergency Eyewash Station Requirements" lists emergency eyewash station requirements as outlined by the American National Standards Institute (ANSI Z358.1).

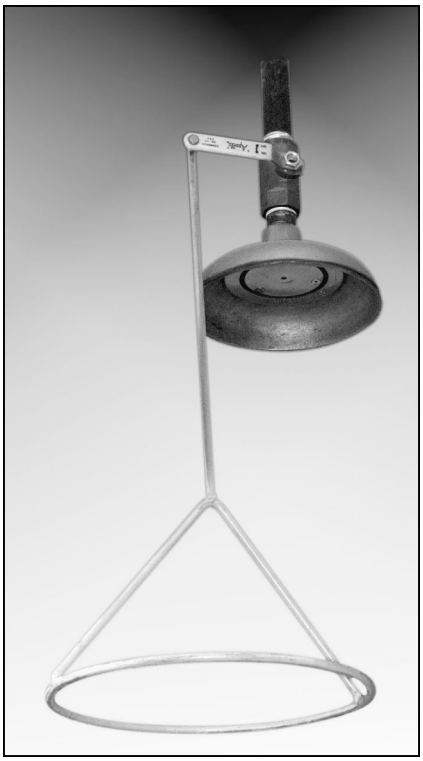
Emergency Eyewash Station Requirements

- An eyewash must be located no greater than 100 feet from the hazard, be on the same level, and take no more than 10 seconds to reach*.
- The water must flow within one second of activation and be able to wash both eyes simultaneously.
- The water must remain on without the use of an operator's hands.
- An eyewash must provide a flow of 1.5 liters (0.4 gallons) of sanitary water per minute for at least 15 minutes, at a velocity low enough not to cause further injury.
- An eyewash must be constructed of noncorroding materials.
- An eyewash must be identified with a highly visible sign and the area around it must be well-lit and free from any physical hazards.
- An eyewash must comply with the current ANSI Z358.1.
- Employees must be trained to use the eyewash properly.
- Eyewash stations must be tested weekly.

* The language in the OSHA standard is as follows: *"...suitable facilities for quick drenching or flushing of eyes and body shall be provided within the work area for immediate emergency use."* Quick and unrestricted accessibility to the eyewash unit is the focus of this requirement. The ANSI language outlines maximum travel values, but still states that the unit should be located as close as possible to the hazard. If you have any questions about where to locate the eyewash station, contact your medical consultant for advice.

There are several different styles of eyewash stations available for use in your facility. They include wall-mounted, sink-mounted and self-contained types. There are also combination face/eyewash units available. All must meet ANSI requirements. To determine which type is best for your facility, review your chemical operations and potential employee exposures to corrosive materials.

Note: The plastic single-use type of water bottles do not meet the ANSI standard, and therefore, should not be used as the only means for flushing eyes or body.



To decide whether or not your facility needs an emergency shower, carefully look over the areas where chemicals are stored, mixed and used. In most photographic processing facilities, only small quantities of chemicals are used. If the risk of these chemicals contacting unprotected areas of the employee is very low, installing an emergency shower may not be necessary. You may decide that an emergency shower is appropriate if, for example, your employees mix large quantities of chemicals and then pump them to overhead storage tanks that have an overflow risk potential. If you install an emergency shower, make sure it meets the requirements in current ANSI Z358.1.

4 Review

- Select and install an ANSI-approved eye-wash station if there's a risk for employees to contact an injurious corrosive material.
- Routinely maintain the eyewash station, and test it weekly.
- Train all employees how to use the eye-wash station properly.
- Evaluate whether an emergency shower is appropriate for your facility.

SAFETY COLOR CODE—ACCIDENT PREVENTION SIGNS AND TAGS

Accident prevention signs and tags of a specific color give your employees an immediate warning about a hazard. In your APP, include a section about how your company will use accident prevention signs and tags. Explain how the different colors identify the hazardous condition, as shown in this chart:

Safety Color Code for Marking Physical Hazards

Color	Type of Hazard	Example
Red	Fire	Fire protection equipment
	Danger	Safety cans, danger signs
	Stop	Emergency stop bars and buttons
Yellow	Caution	Physical hazards such as STEP DOWN and LOW CEILING

Signs and tags are an important communication tool. DANGER and CAUTION signs let the workers know there's a hazard and they should use precaution. Safety instruction signs, such as WEAR YOUR GOGGLES IN THIS AREA, provide your employees with safety instructions or suggestions. The primary color used in this message category is green and white. In all cases, make sure the signs are easy to read.

Use tags on equipment or operations that are hazardous or potentially hazardous. Instruct employees to keep the tag in place until the hazard is eliminated. The tag should read DANGER, CAUTION or WARNING depending upon the severity of the hazard. If English is not the first language of some of your employees, use bilingual signs and tags or pictorials and symbols.

4 Review

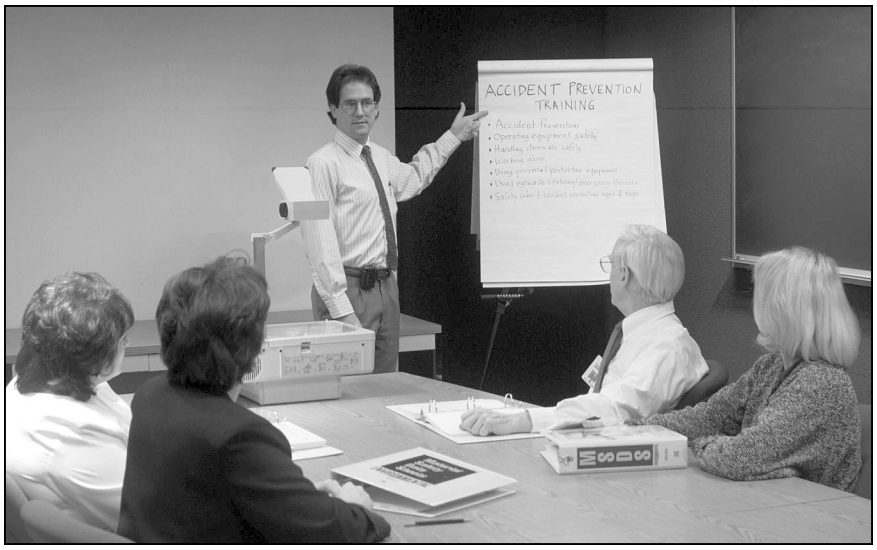
- Use signs and tags, as needed, to warn workers of hazards.
- Use the appropriate safety color when marking hazards.
- Use tags to warn employees that equipment or an operation is hazardous; remove the tag only after the hazard is eliminated.
- Instruct the workforce on what information on the tage means.

EMPLOYEE TRAINING

Training your workforce is the cornerstone of accident prevention. When people are trained to do their jobs properly and to understand the hazards, they will work safely in order to protect themselves. In the APP, outline all the training you provide to your employees and under what circumstances. Provide training when:

- there are new and reassigned employees
- new equipment or a new process is introduced
- procedures are revised
- new information is available
- employee performance needs to be improved

We recommend that you keep a record of who has received training, training dates and a list of the training topics. With this record you can verify that training has been conducted.



SUMMARY OF TRAINING REQUIREMENTS

Train your employees in the following activities:

- Understaning accident prevention
- Operating equipment safely
- Handling chemicals safely
- Working alone
- Using personal protective equipment
- Using eyewash stations (and emergency showers where appropriate)
- Understanding the use of safety colors and accident prevention signs and tags

SELF-ASSESSMENT CHECKLIST

Use this checklist to determine if your facility's Accident Prevention Plan is complete.

Our facility's Accident Prevention Plan includes the following:	Yes	No
• A hazard assessment procedure		
• Employee participation in health, safety and environment evaluations		
• An accident prevention policy		
• A health, safety and environment review procedure		
• A routine inspection procedure		
• Safe operation of equipment procedures		
• Safe chemical handling procedures		
• A lone operator policy and procedure		
• Personal protective equipment (PPE) policy		
• Emergency eyewash requirements		
• An explanation of safety colors and accident prevention signs and tags used in the workplace		
• An employee training program		

FIRE PREVENTION

Every facility—even one with very low hazards such as a photographic processing facility—should consider how it will prevent fires in the work environment. A key to prevention is the development of a written Fire Prevention Plan that focuses on identifying and eliminating or minimizing all fire hazards. In addition to this publication, an excellent resource to assist you in assembling your plan is your fire insurance carrier or the local fire marshall/fire department representative. If your business is part of a corporation, check to see what type of corporate resources might be available.

While OSHA does not specifically require a written fire prevention plan[1] for all workplaces, having one will reduce the risk of fire in your facility. The table below lists suggested elements of a fire prevention plan. Any items specifically mandated by OSHA are highlighted.

Suggested Elements of a Fire Prevention Plan

- List of major workplace fire hazards*
- Safe exits and exit routes (means of egress)*
- Employee alarm systems*
- Automatic fire detection systems†
- Automatic sprinkler systems†
- Fire fighting policy: flee or fight*
- Portable fire extinguishers†
- Names or job titles of maintenance personnel*
- Equipment and systems on heat-producing equipment
- Employee training*

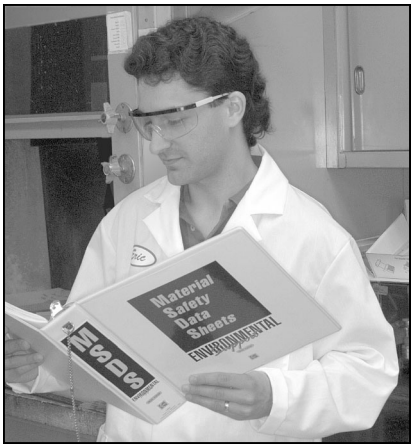
* These elements are specifically required if OSHA requires a fire prevention plan.
† If these items are present in your facility, OSHA has regulations that address these fire protection devices.

Walk through your facility and look for fire hazards or situations that could cause a fire. Examine your chemical inventory for flammable substances. How are they used and stored? Look for potential sources of ignition. Also look for accumulations of trash, cardboard or construction debris. Many fires start in these rubbish piles. Ask the employees or the safety evaluation team for assistance in the identification process. Once you have completed your inspection, you can begin to develop the Fire Prevention Plan.

LIST OF MAJOR WORKPLACE HAZARDS

The first item in the plan is the inventory of workplace fire hazards. Make a list of these hazards by reviewing the MSDSs for all the chemicals used in your facility. The MSDSs will show which ones are flammable or combustible. Most photographic processing chemicals are not considered flammable or combustible. Check carefully the chemicals that are used infrequently. Pay close attention to solvents and solutions that might be used to clean equipment and for other purposes. For each fire hazard you list, include the following information:

- proper handling and storage procedures
- potential ignition sources (such as welding, static electricity, smoking and others)
- control procedures and the appropriate type of fire protection equipment or systems that can control a specific type of fire



1. OSHA requires a written fire prevention plan if a facility uses processes or materials that create a high risk of fire (e.g., chemical process that use large quantities of highly flammable materials or hazardous waste site). Contact your local OSHA office to get additiona information on materials/processes that they consider a high fire risk.

Whenever a new fire hazard is brought into your facility, add it to the list. Make sure you have the appropriate fire fighting equipment for it and employees are trained to handle it.

When you're creating the inventory, don't forget to include flammable and combustible waste solutions. These waste materials are regulated and there are special requirements for handling them. Good housekeeping plays a major role in controlling these fire hazards. For more information about the proper management of flammable and combustible liquids, please refer to KODAK Publication No. J-315, *Special Materials Management in Photographic Processing Facilities*.

4 Review

- Develop a list of all the fire hazards in your workplace.
- Handle flammable and combustible materials properly.
- Use and store fire hazards away from any potential source of ignition.
- Instruct the workforce on what the information on the container label means.
- Manage waste flammable/combustible solutions according to applicable regulations.
- Refer to J-315 for additional requirements.

SAFE EXITS AND EXIT ROUTES (MEANS OF EGRESS)

Your workplace must have at least two means of escape in an emergency: a primary and secondary route of exit. The two routes must be separate from one another and must not direct employees through any high hazard areas. Consult your local and state building codes to determine the specific requirements for your site. Generally, exits and exit routes must meet the requirements listed in the following chart.

General Requirements for Safe Exits and Exit Routes:

- Exit doors must not be lockable.
- Exits must be clearly marked and obvious. Doorways that could be mistaken for an exit should be marked (e.g., "Not an Exit" or "Storeroom").
- Exits must be marked with signs using a distinctive color and have an arrow indicating the direction of travel if it's not immediately apparent. The signs must be illuminated and have legible letters that can be read from a distance.
- Exits must have adequate and reliable lighting.
- Exits routes must have relatively straight, clear, unobstructed aisles leading to each exit.
- Exits must lead directly to a safe, open space that is always maintained (e.g., clear of snow/ice in winter months).

Check the condition of each exit and exit route during your routine facility inspections. Make sure employees know that good housekeeping includes keeping all exits easily accessible and free from clutter. Also, ensure that all employees are instructed on the proper exits to use during an emergency.

4 Review

- Your workplace must have at least two emergency exits.
- All emergency exits must be obvious, clearly marked and well illuminated.
- The routes leading to the exits must be unobstructed.
- All emergency exits must open out to a clear, outside area.
- Instruct employees on which exits to use in an emergency.

EMPLOYEE ALARM SYSTEMS

An employee alarm system is the method you use to warn your employees of an emergency such as a fire. While OSHA requires that every workplace have an employee alarm system, you must decide which is the most appropriate system for your situation. For example, in a very small photographic processing facility where all employees work in the same general area, you may be able to shout and everyone will hear. If the building is large or there are competing noises, you must install and maintain a more sophisticated system such as a manual pull box or a public address (PA) system. Such a system will ensure that the alarm will be heard in all areas. If there are hearing or visually challenged employees or visitors present in your facility, ensure that your system alerts them as well. For information about evacuating the workplace, refer to the section in this publication entitled "Evacuating the Area - Emergency Action Plans." (See page 16)

In the Fire Prevention Plan, list all the employee alarm systems used in your building and the situation(s) in which each would be used. Follow these guidelines for employee alarm systems:

- Develop procedures for sounding the alarm.
- Train each employee to use those procedures and to recognize the alarm.
- Make sure that manual devices such as pull box alarms are in conspicuous locations and easily accessible.
- Maintain the alarm system in operating condition.
- Test manual alarm systems every two months and test supervised or automatic systems annually.
- Ensure the testing and servicing are performed by a trained person.
- Replace power supplies as often as needed. If the system is not operating, use a back-up system, such as an employee runner (messenger), telephone system or two-way radios.

4 Review

- Select an employee alarm system that's appropriate for your workforce and the size and layout of your workplace.
- Train all the employees how to use the alarm(s) and recognize when it has been activated.
- Routinely test the alarm system and maintain it in good operating condition.
- Establish a back-up system to be used when the primary employee alarm system is not operating.

AUTOMATIC FIRE DETECTION

Fire detection systems recognize abnormal conditions such as the presence of smoke or an increase in temperature or light intensity. When they detect any of these conditions, they automatically activate an employee alarm or a fire suppression system such as overhead sprinklers. Check your local building code and with your insurance carrier to find out the specific requirements for automatic fire detection systems in your

facility. Typically, the requirements include the following:

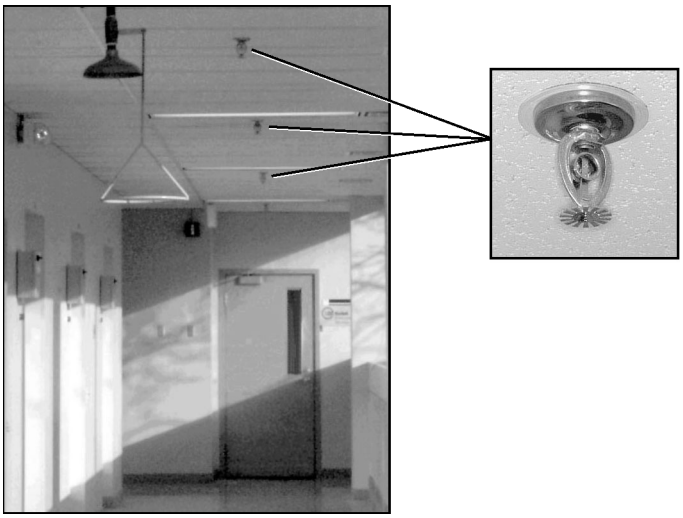
- Locate detection devices out of the way of physical or mechanical impact that could damage them or set them off.
- Keep them free of dirt and dust that could interfere with their operation.
- Maintain them in good operating condition.
- Test and service detection systems by a trained person.
- Establish a routine schedule to test the detection system.
- If the detection system is connected to an alarm, ensure that the alarm has a distinctive sound so that employees recognize that a fire has been detected.

OSHA does not specify how often detection systems should be tested. Check with the system manufacturer, local fire department and your fire insurance carrier to get their recommendations for a test schedule. Include the schedule and maintenance procedures in your Fire Prevention Plan.

4 Review

- Consult the local building code and your insurance company to ensure your workplace has the required automatic fire detection system(s).
- Locate fire detection systems so they can't be easily bumped or damaged.
- Routinely test and maintain the systems to keep them in operating condition.
- Train employees to recognize any fire alarms connected to the system.

AUTOMATIC SPRINKLER SYSTEMS



Automatic water sprinkler systems are a common and important fire extinguishing device. When an automatic system detects a fire, it sounds an alarm and discharges the water where the fire and heat are located. These systems are invaluable in remote areas of the facility or areas where a fire could spread quickly. If your facility is new, sprinklers were probably installed by the builder. If your business is an older location, consult the local building code to find out the specific requirements for overhead sprinklers. You can also ask the fire department and your insurance carrier to inspect your facility to determine if you need an automatic sprinkler system. When you are required to have a sprinkler system in your facility, follow these guidelines:

- Use only approved equipment that has been installed properly.
- Make sure the piping is protected against freezing, corrosion and mechanical damage.
- Never stack any material within 18 inches (45.7 cm) of a sprinkler head. This could interfere with the discharge of water from the sprinkler, affecting its ability to put out a fire.
- Contract with a service company to test and maintain the system at least once each year, and to open the test valves at least once every two years to make sure they operate properly.

Include the testing and maintenance procedures and schedule in your Fire Prevention Plan. Ask your insurance carrier whether it has any requirements for keeping records of testing and maintenance.

Some larger facilities may also have standpipe and hose systems for fire protection. If your facility has a standpipe, keep it protected so that it can be relied upon during a fire emergency. Unless your em-ployees are professionally trained and outfitted to handle interior fires, only your local fire department should use this equipment.

4 Review

- Consult the local building code and with your insurance company to ensure your workplace has the required automatic sprinkler system(s).
- Keep the areas around the sprinkler heads clear so that nothing interferes with the discharge of water.
- Routinely test the system, and maintain it in operating condition.
- Protect sprinklers, standpipes and hose systems from damage.

FIRE FIGHTING POLICY; *FLEE* THE BUILDING *FIGHT* THE FIRE

When you create a Fire Prevention Plan, you need to decide who will fight any fires that occur in your facility. You have three choices.

1. You can establish a "flee policy," meaning that if there's a fire, all employees flee the building.
2. You can establish a fire brigade, using employees who are specially trained. The OSHA requirements for maintaining a fire brigade include the following:
   - Develop written procedures for handling special hazards.
   - Maintain and inspect, at least annually, all fire fighting equipment.
   - Provide and maintain personal protective equipment for fire fighting.
   - Provide, at least annually, training and education similar to that conducted by fire training schools.
3. You can install portable fire extinguishers and train some or all employees to use them in fighting fires that are just starting (the incipient stage).

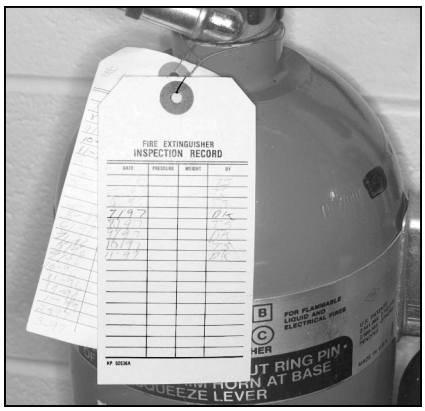
Regardless of the option you choose, if you require any of your employees to evacuate the area, you should create a written evacuation plan called an Emergency Action Plan. This plan is discussed in detail in the section of this publication entitled "Evacuating the Area—Emergency Action Plan." (See page 16)

PORTABLE FIRE EXTINGUISHERS

If you choose to install portable fire extinguishers, you must satisfy OSHA's requirements as listed in the following chart.

Requirements for Installing and Using Portable Fire Extinguishers:

- Only use the correct and approved type.
- Mount and locate the fire extinguisher so that it is easily accessible and clearly identified.
- Always store it in its proper location when not in use.
- Locate a fire extinguisher within 50 feet or less of a Class B (flammable) hazard and within 75 feet or less of a Class A (ordinary combustibles) hazard.
- Keep it fully charged and operable at all times.
- Ensure that a trained person inspects each extinguisher at least monthly and performs an annual maintenance check. Keep records of all inspections.
- Ensure that a trained person performs hydrostatic testing every 5 or 12 years, depending on the type of fire extinguisher, as specified by OSHA.



A portable fire extinguisher in the hands of a trained person is a very effective fire fighting tool. If you elect to create a fire fighting team to handle incipient stage fires, you should start by identifying those employees who are capable of fighting a fire at this early stage. Then train them about the hazards of fighting fire, how to react to a fire, how to alert fellow employees, and how to use the portable fire extinguisher properly. Have them actually practice by extinguishing a simulated fire.

Provide annual refresher training to all employees who are expected to use the portable fire extinguisher(s). In the Fire Prevention Plan, outline the procedure for training employees and selecting the portable fire extinguishers. Check with your local fire department to find out if they would assist in training your employees.

Make sure you select the type of portable fire extinguishers that are suitable for your situation. The four classes are shown in the following chart. Photographic processing facilities will typically use Class A and Class B extinguishers, but Class C is possible if energized electrical equipment is involved in a fire.

Rating Portable Fire Extinguishers

Class of Fire and Portable Fire Extinguisher	Materials Involved
A	Ordinary combustibles: wood, cloth, paper, rubber, refuse, etc.
B	Flammable liquids, gases, greases, paints
C	Class A or B materials in a situation which also involves energized electrical equipment
D	Combustible metals: magnesium, titanium, zirconium, sodium, potassium

4 Review

Determine your company's emergency policy: fight or flee.

If you choose to install portable fire extinguishers in your workplace, you must do the following:

- Based on the inventory of workplace fire hazards, select the appropriate class of portable fire extinguisher.
- Install it correctly and maintain it in operating condition.
- Establish a monthly inspection and an annual maintenance checkprogram.
- Select and train employees to use the portable fire extinguisher(s)

NAMES OR JOB TITLES OF MAINTENANCE PERSONAL

Identify specific employees who are responsible for maintaining the fire protection equipment such as sprinkler systems and fire extinguishers. Include their names or job titles in the Fire Prevention Plan.

EQUIPMENT AND HEAT-PRODUCING EQUIPMENT MAINTENANCE

Maintenance also plays a big role in the safe operation of heat-producing equipment. Pumps and heating elements, for example, must be routinely and properly maintained and kept free of any flammable residues. Include these maintenance proce-dures in the Fire Prevention Plan.

EMPLOYEE TRAINING

Since employee training is fundamental to fire prevention, include training procedures and an outline of the topics in your Fire Prevention Plan. Base employee training on the inventory of workplace fire hazards and include information about which materials are fire hazards, the proper way to handle and store those materials, and what to do if a fire occurs.

Only employees who receive specialized training may stay behind to fight a fire. Others must evacuate the workplace during a fire.

Summary of Training Requirements

Train your employees in the following activities:

- Identifying workplace fire hazards
- Identifying emergency exits and exits routes and keeping them unobstructed*
- Recognizing, using and responding to the employee alarm system(s)*
- Storing and stacking materials around automatic sprinkler systems
- Using portable fire extinguishers*

* This training is specifically required by OSHA.

SELF-ASSESSMENT CHECKLIST

Use this checklist to determine if your facility's Fire Prevention Plan is complete.

Our facility's Fire Prevention Plan includes the following:	Yes	No
• A list of all major workplace fire hazards		
• A procedure for ensuring all the emergency exits and exit routes are accessible, unobstructed and easily seen		
• Procedures for using the employee alarm system(s)		
• Procedures for testing and maintaining the automatic fire detection systems		
• Procedures for testing and maintaining the automatic sprinkler system		
• Procedures for installing, maintaining and using the portable fire extinguishers		
• Names or job titles of personnel responsible for maintaining fire control equipment and systems		
• Procedures for maintaining equipment and systems on heat-producing equipment		
• A list of employee training topics for fire prevention		

EMERGENCY RESPONSE ACTIVITIES

Even with careful accident and fire prevention planning, it is still possible to have an emergency. Whether it's fire, chemical or weather related, planning your emergency response takes the guess work out of what to do if one occurs. This section details two different types of emergency activities:

- Evacuating an area in the case of an emergency
- Responding to a spill of hazardous material(s)

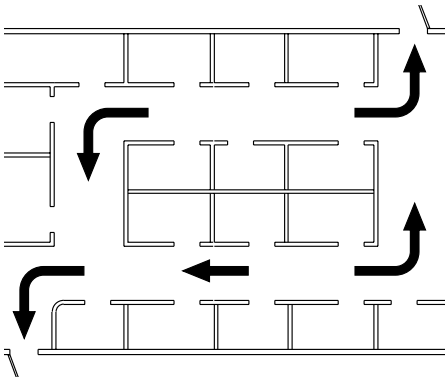
EVACUATING THE AREA—EMERGENCY ACTION PLAN

If you require any of your employees to evacuate the area in the case of a fire, OSHA mandates that you develop a written Emergency Action Plan.[1]

Once again, work with the employees or your safety evaluation team to develop a written plan that's appropriate for your facility. Include the following elements in your Emergency Action Plan:

- Use floor plans or maps of the workplace that clearly show the emergency escape routes. Color coding will make the maps easier to read. Show the locations of all portable fire extinguishers.
- Explain the different types of emergencies and the type of evacuation required for each type. For example, in the case of a small fire, only those employees in the immediate area may need to evacuate.

1. In a facility with 10 or fewer employees, the emergency action plan does not have to be written and may be communicated orally. We recommend that a written plan be maintained and periodically reviewed in all facilities, regardless of size, to ensure consistent information is provided to all employees.



Sample Evacuation Floor Plan

- Identify the employee alarm system (e.g., manual, automatic) and if there is more than one, list the situation in which each would be used. For example, in the case of a small spill, it may be adequate for someone to simply tell other workers to stay out of the area.
- Detail the procedures for the employees who remain to perform essential plant operations.
- Identify the procedures for evacuating physically challanged employees.
- Identify the location where employees should congregate after they've evacuated the building (e.g., in the parking lot or a vacant lot across the street). Make sure the location is away from the emergency.
- Identify staff members responsible for doing employee headcounts following an evacuation.
- List the names and medical duties of the employees who are to perform them. For example, include the names of workers who are certified in first aid. Make sure these workers know what's expected of them. For more information, refer to KODAK Publication No. J-317, *Injury and Illness Management for Photographic Processing Facilities*.
- List the names and job titles of the people who can provide more information about the Emergency Action Plan.
- Post the plan where it's easily accessible to all employees.
- Perform a practice emergency evacuation drill at least once per year.

OSHA requires that you train your employees on how to carry out the Emergency Action Plan. First train the employees who will help in an emergency evacuation. Then train all the workers in the roles they will have during an emergency, even if they are simply required to leave the building. Test the action plan by holding an emergency drill. Then you'll know what works, what doesn't and who needs more training. And always review the plan with newly hired employees or whenever a worker's responsibilities under the plan change.

4 Review

- Establish an emergency action plan for all employees who evacuate in the case of an emergency.
- Train all employees in the role they will play in an emergency.
- Make the plan available for all employees to review.
- Perform practiceevacuation drills.

HAZARDOUS MATERIALS CLEAN-UP

No matter how clean your facility is and how well-trained your employees are, it's possible to spill hazardous materials. Plan clean-up activities before you need them, so that if a spill occurs, you can clean it up safely, quickly and correctly.

Develop step-by-step spill clean-up procedures so your employees will know precisely what to do if a spill occurs. Hold a "mock spill-drill" to make sure the procedures work, and then post them in areas where spills are likely to occur. You may have to develop more than one clean-up procedure depending on the chemicals that are present in your facility.

Conventional photographic processing chemicals are water-based and are not flammable. In fact, once they're mixed to working strength, these chemicals are typically more than 85 percent water. Most unused working-strength chemicals, along with used developers and wash waters, are typically considered nonhazardous. For these chemicals, the best clean-up tools are a dedicated sponge, mop and bucket, used in conjunction with the appropriate PPE.

Photographic processing solutions may be characterized as a hazardous waste if they meet either of the following two conditions:

1. If the silver content exceeds 5 parts per million (ppm)—Typically, used fixer, bleach-fix, bleach, stabilizers and stop bath contain silver. These solutions must be desilvered to meet the local sewer ordinance before they can be discharged. If you do not know the ordinance limit for silver in your area, contact the local wastewater treatment authorities.
2. If the pH is greater than 12.5 or less than 2.0)—In their concentrated form, some of the photographic processing solutions have a pH out of the range allowed by the local sewer ordinance. Review your MSDSs and product labels to find out if your facility has any of these solutions.

Some municipalities require notification if a facility discharges a certain substance or concentration of effluent. Check with your local agency to find out its notification requirements.

For additional information about cleaning up spills of Kodak materials, call Kodak Environmental Services at (716) 477-3194, Monday - Friday, 8:00 am to 5:00 pm (EST). Also consult with your local wastewater treatment authority to determine which substances are regulated in the local sewer ordinance. Inquire about secondary containment requirements for certain substances.

HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE (HAZWOPPER)

Most spills in a photographic processing facility are incidental, meaning they're minor. They can be cleaned up with a sponge and a mop, and OSHA HAZWOPER[1] requirements are not triggered. However, if there is a remote possibility for an "uncontrolled" release of a hazardous material in quantities that can not be managed by employees, this type of spill goes beyond the definition of incidental. If the potential for this kind of spill even exists in your facility, then you may be subject to the OSHA regulation (HAZWOPER).

If your facility is subject to HAZWOPER, you have two choices:

1. Train your employees how to contain, control and clean-up a hazardous substance if an emergency occurs.
2. Develop an emergency action plan which will include your plan on how to evacuate the facility in an emergency.

4 Review

- Consult with your local wastewater treatment agency regarding its sewer discharge and notification regulations for photographic processing chemicals.
- Develop spill clean-up procedures.
- Maintain absorbents and other clean-up materials for spills of chemicals that can not be discharged to the sanitary sewer.
- If there's a potential for an "uncontrolled" release of hazardous materials in your facility, comply with HAZWOPER.

1. This publication only addresses HAZWOPER coverage of emergency response related to a photographic processing facility.

SELF-ASSESSMENT CHECKLIST

Use this checklist to determine if your facility's plan for emergencies and spills is complete.

Our facility's Fire Prevention Plan includes the following:	Yes	No
• A floor plan or maps of the workplace		
• An explanation of the various types of emergencies		
• A list of the various employee alarm systems		
• Procedures for evacuating physically challanged employees		
• The names of the staff responsible for doing an employee headcount following an evacuation		
• The names of employees who are responsible for performing medical duties (e.g., first aid)		
• A list of employees who can provide more information about the emergency action plan		

Our Spill Response Plan includes the following:	Yes	No
• Spill clean-up procedures		
• A list and locations of absorbents and other spill clean-up materials		
• The telephone number of the local wastewater treatment authority		
• The telephone number of Kodak Environmental Services		

REGULATORY AND ASSOCIATED REFERENCES

Subject	OSHA Standard
Exits and exit routes (egress)	29 CFR 1910.35 - 1910.37
Employee emergency plans and fire prevention plans	29 CFR 1910.38
Compressed gases (general requirements)	29 CFR 1910.101
Flammable and combustible liquids	29 CFR 1910.106
HAZWOPER	29 CFR 1910.120
Personal protective equipment	29 CFR 1910.132 - 1910.133
Safety colors	29 CFR 1910.144
Accident prevention signs and tags	29 CFR 1910.145
Fire brigades	29 CFR 1910.156
Portable fire extinguishers	29 CFR 1910.157
Standpipe and hose systems	29 CFR 1910.158
Automatic sprinkler systems	29 CFR 1910.159
Fire detection systems	29 CFR 1910.164
Employee alarm systems	29 CFR 1910.165

To obtain a copy of the Emergency Eyewash and Shower Equipment, ANSI Z358.1, that is referred to in this publication, contact:

American National Standards Institute (ANSI)

11 W 42nd Street
New York, NY 10036
1-212-642-4800

MORE INFORMATION

If you have environmental or safety questions about Kodak products or services, contact Kodak Environmental Services at 1-716-477-3194, between 8 a.m. and 5 p.m. (Eastern time) or visit KES on-line at www.kodak.com/go/kes.

Kodak also maintains a 24-hour health hotline to answer questions about the safe handling of photographic chemicals. If you need health-related information about Kodak products, call 1-716-722-5151.

For questions concerning the safe transportation of Kodak products, call Kodak Transportation Services at 1-716-722-2400.

Additional information is available on the Kodak website and through the U.S.A./Canada faxback systems.

The products and services described in this publication may not be available in all countries. In countries other than the U.S., contact your local Kodak representative, or your usual supplier of Kodak products.

The following publications are available from Kodak Customer Service or from dealers who sell Kodak products.

J-98A	*Safe Handling of Photographic Processing Chemicals*
J-110	*Formaldehyde Use in Photographic Processing Facilities*
J-111	*Determining Workplace Exposure to Formaldehyde*
J-112	*Formaldehyde Emergencies*
J-113	*About the OSHA Formaldehyde Standard*
J-311	*Hazard Communication for Photographic Processing Facilities*
J-312	*Personal Protective Equipment Requirements for Photographic Processing Facilities*
J-313	*Occupational Noise Exposure Requirements for Photographic Processing Facilities*
J-314	*Indoor Air Quality and Ventilation in Photographic Processing Facilities*
J-315	*Special Materials Management in Photographic Processing Facilities*
J-317	*Injury and Illness Management for Photographic Processing Facilities*

Kodak
Environmental
Services

For more information about Kodak Environmental Services,
visit Kodak on-line at:
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Many technical support publications for
Kodak products can be sent to your fax machine
from the Kodak Information Center. Call:
U.S. 1-800-242-2424, Ext. 33 / Canada 1-800-295-5531
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In the U.S.A.:
1-800-242-2424, Ext. 19, Monday–Friday
9 a.m.–7 p.m. (Eastern time)
In Canada:
1-800-465-6325, Monday–Friday
8 a.m.–5 p.m. (Eastern time)

The information contained in this publication will assist photographic processing facilities in developing accident prevention, fire prevention, and emergency response plans.

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