Fire Prevention, Life & Safety Program

October 2016

San Bernardino Valley College
701 South Mount Vernon Avenue
San Bernardino, California 92410
&
Crafton Hills College
11711 Sand Canyon Road
Yucaipa, California 92399

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Policy Statement

Candles and open flames may create a serious fire hazard. It is the policy of the San Bernardino Community College District to provide a safe learning and work environment for its students, employees, and visitors.

Purpose

Fires, like all other types of accidents, are largely preventable. The purpose of this fire program is to comply with Cal/OSHA regulation T8CCR3221 and eliminate to the extent possible the causes of fire and prevent the loss of life and property by fire. It provides faculty, staff, and students with information and guidelines which will assist them recognizing, reporting and mitigating fire hazards.

Scope and Application

Fires, like all other types of accidents, are largely preventable. This Fire and Life Safety Program provides faculty, staff, and students with information and guidelines which will assist them recognizing, reporting and mitigating fire hazards. The SBCCD Fire and Life Safety Program provides:

- Examples of common causes of fires, as well as potential fire hazards and the proper means of handling and storing potentially flammable materials.
- Identifies the campus department(s) responsible for maintaining equipment and systems installed to prevent or control ignition or fires and controlling the accumulation of flammable or combustible material.
- Describes good housekeeping procedures necessary to insure the control of accumulated flammable and combustible waste material and residues to avoid a fire emergency.
- Examples of potential fire hazards that faculty, staff and students may be exposed on campus.

Responsibilities

Program Administrator

The campus Director, Facilities, Maintenance & Operations serves as the designated Fire and Life Safety Program Administrator and is responsible for ensuring proper training is supplied to all SBCCD campus employees. The Program Administrator is also responsible for the routine inspection and servicing of all campus fire prevention equipment and maintains accurate records of inspections, training, permits and corrective maintenance performed.

Assigned campus Fire and Life Safety Program Administrator(s) are as follows:

SBVC, Director, Facilities, Maintenance & Operations
San Bernardino Valley College
Tel: (909) 384-8662
&
CHC, Director, Facilities, Maintenance & Operations
Crafton Hills College
Tel: (909) 389-3384

Supervisors

Supervisors are responsible for informing employees of potential fire hazards in the work place specific to their work assignments. In addition, each supervisor shall instruct employees on those parts of the fire and life safety program applicable for the employees to protect themselves and respond in the event of an emergency.

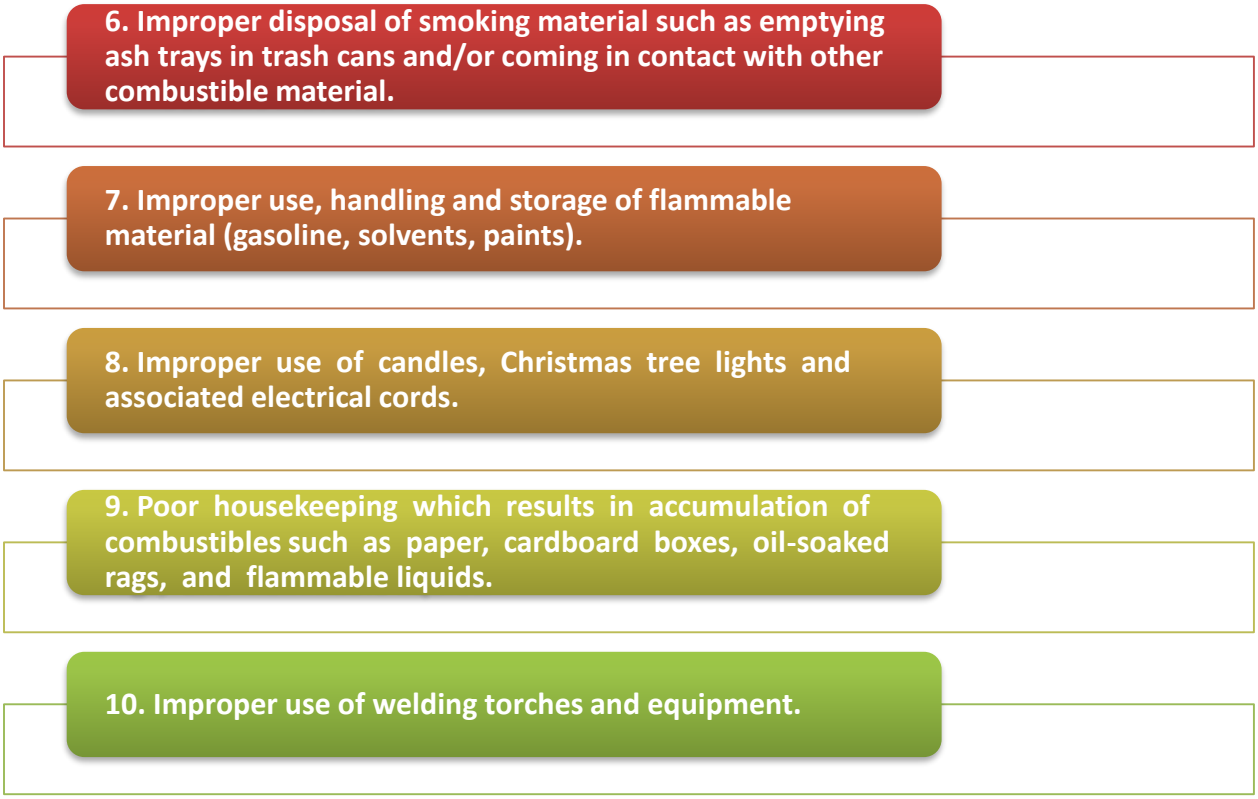
Fire Extinguisher training classes are offered and can be coordinated by contacting District Safety & Risk Management at (909) 382-4040 or srm@sbccd.cc.ca.us.

All SBCCD employees are responsible for being familiar with the information contained in this program and maintaining a safe working environment. The failure of any SBCCD employee to adhere to the provisions of this program may be subject to progressive disciplinary action, up to and including termination, as outlined in the California Education Code.

Program Elements

Common Causes of Fires

1. **Overloaded electrical circuits, unsafe wiring and defective extension cords.**
2. **Appliances such as coffee pots/makers, hot plates and other heating devices left on when not in use.**
3. **Unattended cooking.**
4. **Overheated motors and other equipment not maintained properly.**
5. **Improper use of non-electrical heating systems (space heaters).**



Candles and Open Flame Policy

The following restrictions apply to the use of candles, incense, potpourri, plug-in air fresheners, and other open flame devices in any SBCCD facility:

1. **Plug-in Air Freshener Devices**

   Plug-in air freshener devices are prohibited in all SBCCD facilities.

2. **Candles/Open Flame Devices**

   Candles and any open flame device (including incense and potpourri burners, torches, fueled lamps, etc.), except as noted in #3 below, are prohibited in all SBCCD buildings.

3. **Exception: Candles and Open Flame Devices**

   The use of candles and the burning of incense in any SBCCD facility is prohibited. The use of candles or the burning of incense may be approved in compliance with the following conditions:

   - To obtain permission for candle or incense use, the individual must submit a written statement identifying the nature of the use of candles or incense. Requests must be submitted at least seven (7) days in advance of the requested date to the respective campus Fire and Life Safety Program Administrator/Director, Facilities & Maintenance Operations. Approval will be granted for specific dates and location only.
   - Candles/incense may not be left unattended while burning.

- Candles must be of low flame variety and must be placed in a properly fitting menorah or in a sturdy, non-combustible container.
- When used, it is recommended that candles should be completely enclosed in a tip-resistant non-combustible container constructed so as to be self-righting if placed in a freestanding position. The container, if tipped, must be capable of containing the entire candle, dripping wax, and any convected heat within the container. No candle or open flame device shall be placed in a polystyrene holder or decoration.
- Candles and/or open flame devices must not be placed on windowsills or other areas that are unstable or, where they could come into contact with any readily combustible materials, such as drapes or curtains. All such items must be secured at least three (3) feet away from the open flame.
- Candles/incense must not be used in close proximity to heat or smoke detectors or sprinkler heads in such a way that heat or smoke might activate the device.
- Approved cone incense must be burned in a noncombustible container or a noncombustible surface with adequate insulating properties to avoid damage to the surface upon which placed. Approved use of stick incense must be burned in such a manner that hot ashes do not contact any combustible material or cause damage to any surface upon which they fall.
- Candles and/or open flame devices shall be lit only during the ceremony or function. Flames will be immediately extinguished at the conclusion of the ceremony or function.
- Candles and/or open flame devices will not be permitted in areas where occupants are standing in aisles or exits.

4. Food Service Operators- Use of Solid Alcohol (Sterno) Food Heating Devices

Solid alcohol (Sterno) heating of food is permitted, when the following requirements are complied with:

- Sterno use is permitted in public space, for food service operations only, it is not permitted in private office space, or other non-public space. Only University Food Service personnel or designated vendors or contractors shall be allowed to utilize Sterno heating devices, providing they comply with the Solid Alcohol.
- A 10 pound BC dry chemical extinguisher, or Type K extinguisher, shall be available within ten (10) feet of the serving table or tables.
- Use of secondary containers for Sterno, i.e. fuel holders with cover, is mandatory. Proper tools must be available for the smothering of the flame if needed, i.e. snuffer paddle.
- All chafing racks and beverage urns using Sterno shall be placed on non-combustible mats, ceramic or metal trays extending at least eight inches beyond the Sterno container in each direction, to prevent accidental contact with any combustible materials.
- Sterno shall be placed under food or beverage tray before lighting. Sterno shall only be lit by means of a butane lighter or long handled match. Chafing racks or beverage urns shall not be moved while Sterno are lit.
- Only regular cloth table covers shall be used. All table decorations must be flame resistant. Combustible material such as plates, napkins, plastic utensils, cups and similar products shall be separated by a minimum of three feet from Sterno.
- Sterno must be immediately extinguished when the food tray is empty or no longer used. When the event is over, all Sterno must be extinguished immediately, capped and removed from facility.

5. Open Flame in Laboratories

Approved laboratory spaces may operate attended open flame devices, such as Bunsen burners, so long as all established safety procedures are followed.

6. Welding & Cutting

Welding operations are permitted when the following conditions are met:

- Establish approved areas for cutting and welding based on the fire potentials of the facility and establish procedures for approving cutting and welding in other areas.

- Each area where cutting and welding take place must have an individual responsible for authorizing cutting and welding operations in areas not specifically designated or approved for such processes.
- Insure that cutters or welders are properly trained in the safe operation of their equipment and the safe use of the process.

7. Gas Barbecue Grills

Gas barbecue grills are permitted when the following conditions are met:

- Minimum distance of 20' from the building (no indoor grilling).
- Grill is located on a non-combustible surface, such as a sidewalk.
- Propane tanks shall be stored in accordance with NFPA 58.
- Fire extinguisher is readily available and staff has been trained on how to properly use it.

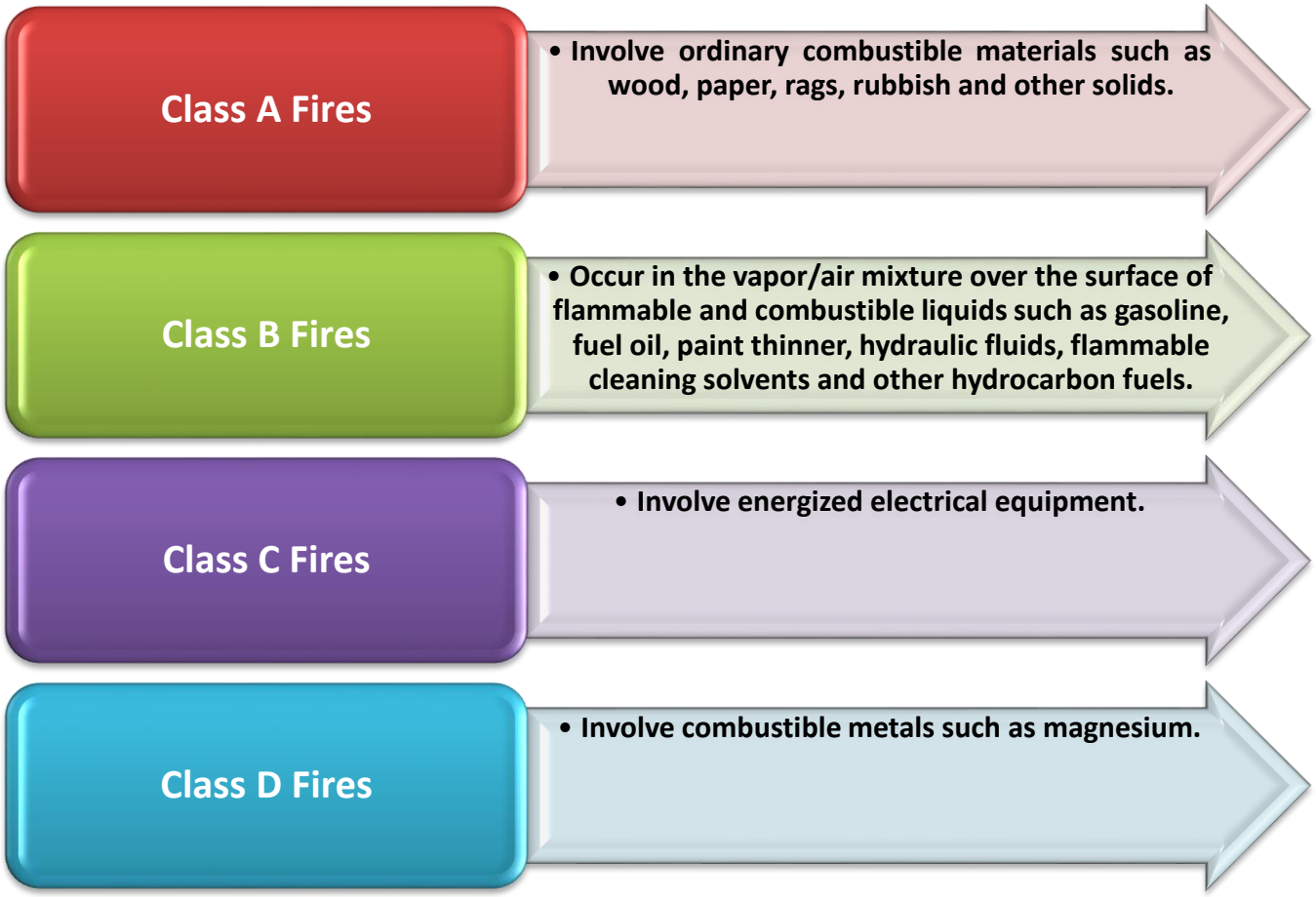
8. Pyrotechnics and Open Flame Devices for Special Effects

Contact the Police Department at (909) 384-4491 for the San Bernardino Valley College campus or (909) 389-3775 for the Crafton Hills College campus for review/approval of pyrotechnics or open flame devices for special effects.

Fire Extinguishers

Fires are classified into four different classifications depending on the type of materials or fuels involved. The type of fire determines the type of extinguisher used to extinguish it. Accordingly, all fire extinguishers are identified with common symbols to indicate which class of fire the extinguisher will be most effective on. Fire Extinguishers located throughout the campus are typically rated for use on Class A, Class B and/or Class C fires and can used effectively on any such fire.

Fire Classifications



Training

The SBCCD Fire and Life Safety Program Administrator is responsible for ensuring the following employee training is accomplished:

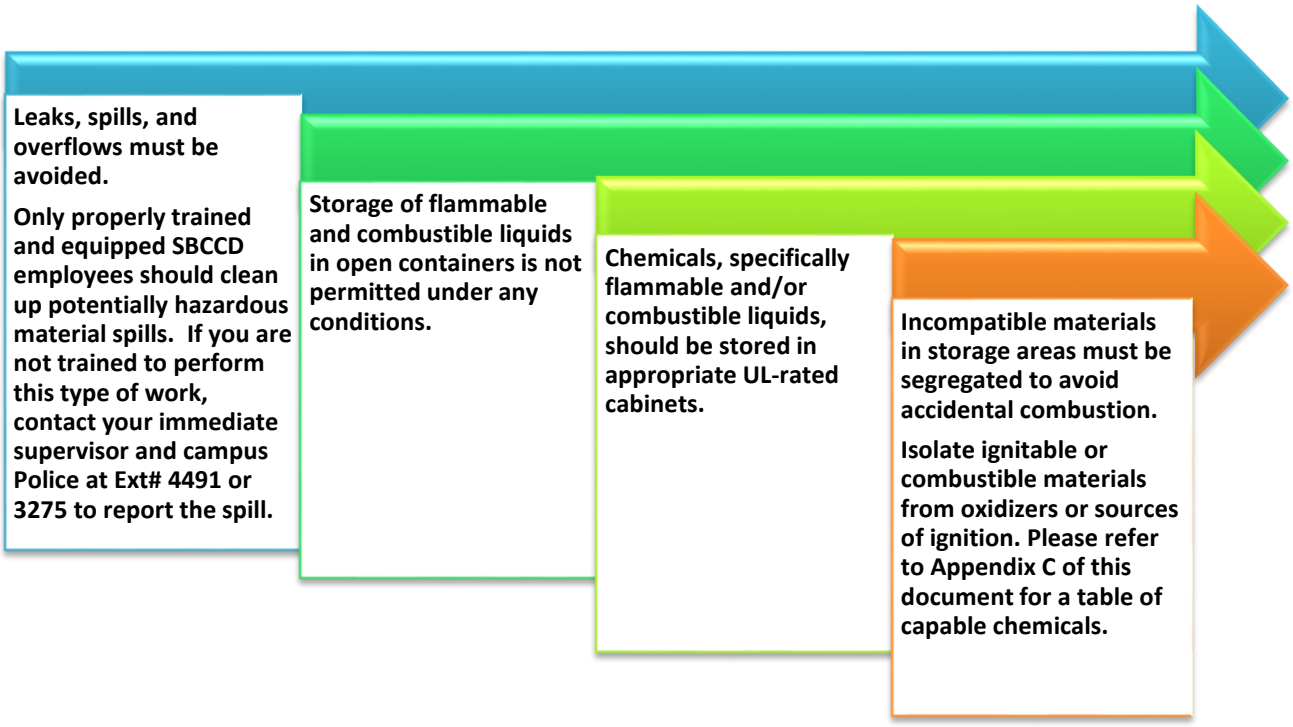
- Work collaboratively with District Safety & Risk Management to ensure employees are provided with training, which shall apprise employees of the fire hazards of the materials and processes to which they are exposed.
- Work collaboratively with District Human Resources & Employee Relations to ensure that each employee reviews upon initial assignment those parts of the fire prevention plan which the employee must know to protect the employee in the event of an emergency. The written plan shall be kept in the workplace and made available for employee review.

Fire Prevention Measures

Good housekeeping is basic to fire safety and should be a major concern in every type of college facility. The following general preventive measures will help to mitigate potential fire hazards:

Good Housekeeping Tips for Fire Prevention	**General work areas such as offices, labs, and shops must be kept organized, orderly and clean.**
	Discarded packing material or scrap paper should not be allowed to accumulate.
	A sufficient number of waste baskets or trash receptacles made of a non-combustible material should be placed in each work area.
	Floors should be swept or vacuumed regularly to prevent the accumulation of potentially combustible materials.
	Avoid using flammable solvents or materials with low flash points to clean floors, walls, furniture or equipment. Details on the flammability and flash point of specific materials can be found on the associated MSDS sheet.
	Store oil or chemical soaked rags only in metal containers suitable for flammable storage.
	Flammable materials should be stored in metal cabinets specifically designed for flammable storage.
	Equipment installed to prevent accidental ignition of combustible material, e.g. grounding wires or dust collection equipment, must be routinely inspected by the appropriate department supervisor to ensure proper operation.

Chemical Handling and Storage



- **Spill Response Procedures: Can be referenced from the Emergency Flip-Charts, which should be located in each functional space on campus.**

Hazardous Waste Abatement

Maintenance & Operations is responsible for the collection and disposal of hazardous waste, including chemical, biohazard, and radioactive wastes. If you have any questions concerning the disposal of hazardous waste, call the District Safety & Risk Management at (909) 382-4040 or srm@sbccd.cc.ca.us.

- **The SBVC & CHC, Hazardous Waste Management plans can be accessed at the following link https://sbccd.org/safetyrisk**

Types of Fire Protection Equipment

The basic types of fire protection equipment/systems used at SBCCD include:

- Portable fire extinguishers
- Fire sprinkler systems
- Chemical extinguishing systems, including carbon dioxide, dry chemical and halon systems
- Fire alarms and smoke detectors

Maintenance of Fire Protection Equipment

The Maintenance & Operations Department is responsible for the inspection and oversight of all fire protection equipment, and the portable fire extinguisher service program. Fire extinguishers are inspected by staff on a monthly basis and certified annually.

Please report any problems with any fire protection equipment by calling Maintenance & Operations at (909) 384-8965, for the San Bernardino Valley College campus and (909) 389-3217, for the Crafton Hills College campus.

APPENDIX A: PARTIAL LIST OF INCOMPATIBLE CHEMICALS

(REACTIVE HAZARDS)

❖ **Reference the SBVC or CHC campus, Hazardous Waste Mgmt. Plan, at https://sbccd.org/safetyrisk for campus specific information.**

TOO OFTEN CHEMICALS ARE STORED ALPHABETICALLY. THIS CAN LEAD TO EXPLOSIVE OR TOXIC ALPHABET SOUP. SUBSTANCES IN THE LEFT COLUMN SHOULD BE STORED AND HANDLED SO THAT THEY CANNOT ACCIDENTALLY CONTACT CORRESPONDING SUBSTANCES IN THE RIGHT COLUMN UNDER UNCONTROLLED CONDITIONS.

SOURCE: Prudent Practices for Handling Hazardous Chemicals in Laboratories, National Research Council, Washington, D.C., 1995.

CHEMICAL	INCOMPATIBILITY
Acetic acid	Chromic acid, nitric acid, hydroxyl compounds, ethylene glycol, perchloricacid, peroxides, permanganates
Acetone	Concentrated nitric and sulfuric acid mixtures
Acetylene	Chlorine, bromine, copper, fluorine, silver, mercury
Alkali and alkaline earth metals (lithium, sodium, potassium)	Water, carbon tetrachloride or other chlorinated hydrocarbons, carbon dioxide, halogens, powdered metals (e.g., aluminum or magnesium)
Ammonia(anhydrous)	Mercury (e.g., in manometers), chlorine, calcium hypochlorite, iodine, bromine, hydrofluoric acid (anhydrous)
Ammonium nitrate	Acids, powdered metals, flammable liquids,chlorates, nitrates, sulfur, finely divided organic or combustible materials
Aniline	Nitric acid, hydrogen peroxide
Arsenical materials	Any reducing agent
Azides	Acids
Bromine	See Chlorine
Calcium oxide	Water
Carbon (activated)	Calcium hypochlorite, all oxidizing agents
Carbon tetrachloride	Sodium, Chlorates, Ammonium salts, acids, powdered metals, sulfur, finely divided organic or combustible materials
Chlorine	Ammonia, acetylene, butadiene, butane, methane, propane (or other petroleum gases), hydrogen, sodium carbide, benzene, finely divided metals, turpentine
Chlorine dioxide	Ammonia, methane, phosphine, hydrogen sulfide
Chromic acid and chromium	Acetic acid, naphthalene, camphor, glycerol, alcohol, flammable liquids in general
Copper	Acetylene, hydrogen peroxide
Cumene hydroperoxide	Acids (organic or inorganic)
Cyanides	Acids
Flammable liquids	Ammonium nitrate, chromatic acid, hydrogen peroxide, nitric acid, sodium peroxide, halogens

Fluorine	Isolate from everything
Hydrocarbons (e.g.,butane, propane, benzene)	Fluorine, chlorine, bromine, chromic acid, sodium peroxide
Hydrocyanic acid	Nitric acid, alkali
Hydrofluoric acid (anhydrous)	Ammonia (aqueous or anhydrous)
Hydrogen peroxide	Copper, chromium, iron, most metals or their salts, alcohols, acetone, organic materials, aniline, nitromethane, combustible materials
Hydrogen sulfide	Fuming nitric acid, oxidizing gases
Hypochlorites	Acids, activated carbon
Iodine	Acetylene, ammonia (aqueous or anhydrous), hydrogen
Mercury	Acetylene, fulminic acid, ammonia
Nitrates	Sulfuric acid
Nitric acid (concentrated)	Acetic acid, aniline, chromic acid, hydrocyanic acid, hydrogen sulfide, flammable liquids, flammable gases, copper, brass, any heavy metals
Nitrites	Potassium or sodium cyanide.
Nitroparaffins	Inorganic bases, amines
Oxalic acid	Silver, mercury
Oxygen	Oils, grease, hydrogen, flammable: liquids, solids, or gases
Perchloric acid	Acetic anhydride, bismuth and its alloys, alcohol, paper, wood, grease, oils
Peroxides, Organic	Acids (organic or mineral), avoid friction, store cold
Phosphorus (white)	Air, oxygen, alkalis, reducing agents
Phosphorus pentoxide	Water
Potassium	Carbon tetrachloride, carbon dioxide, water
Potassium chlorate	Sulfuric and other acids
Potassium perchlorate	(see Sulfuric and other acids also chlorates)
Potassium permanganate	Glycerol, ethylene glycol, benzaldehyde, sulfuric acid
Selenides	Reducing agents
Silver	Acetylene, oxalic acid, tartaric acid, ammonium compounds, fulminic acid
Sodium	Carbon tetrachloride, carbon dioxide, water
Sodium Chlorate	Acids, ammonium salts, oxidizable materials, sulfur
Sodium nitrite	Ammonium nitrate and other ammonium salts
Sodium peroxide	Ethyl or methyl alcohol, glacial acetic acid, acetic anhydride, benzaldehyde, carbon disulfide, glycerin, ethylene glycol, ethyl acetate, methyl acetate, furfural
Sulfides	Acids
Sulfuric acid	Potassium chlorate, potassium perchlorate, potassium permanganate (similar compounds of light metals, such as sodium, lithium)

Tellurides	Reducing agents
Water	Acetyl chloride, alkaline and alkaline earth metals, their hydrides and oxides, barium peroxide, carbides, chromic acid, phosphorous oxychloride, phosphorous pentachloride, phosphorous pentoxide,sulfuric acid, sulfur trioxide

15 Reasons Not to Store Your Chemicals Alphabetically

INCOMPATABILE CHEMICALS	POSSIBLE REACTIONS
Acetic Acid - Acetaldehyde	Small amounts of acetic acid will cause the acetaldehyde to polymerize releasing great quantities of heat.
Acetic Anhydride - Acetaldehyde	Reaction can be violently explosive.
Aluminum Metal - Ammonium Nitrate	A Potential Explosive
Aluminum - Bromine Vapor	Unstable nitrogen tribromide is formed: explosion may result.
Ammonium Nitrate - Acetic Acid	Mixture may result in ignition, especially if acetic acid in concentrated.
Cupric Sulfide - Cadmium Chlorate	Will explode on contact.
Hydrogen Peroxide - Ferrous Sulfide	A vigorous, highly exothermic reaction.
Hydrogen Peroxide - Lead II or IV Oxide	A violent, possibly explosive reaction.
Lead Sulfide - Hydrogen Peroxide	Vigorous, potentially explosive reaction.
Lead Perchlorate - Methyl Alcohol	An explosive mixture when agitated.
Mercury II Nitrate - Methanol	May form Hg fulminate- an explosive.
Nitric Acid - Phosphorous	Phosphorous aburns spontaneously in presence of nitric acid.
Potassium Cyanide - Potassium Peroxide	A potentially explosive mixture if heated.
Sodium Nitrate - Sodium Thiosulfate.	A mixture of the dry materials may result in explosion.

Safety Program Approval Form

Safety Program: **Fire Prevention & Life Safety Program –San Bernardino Valley College – September 2016**

Reviewed by: _____ Date 9/19/16

Whitney J. Fields

SBCCD Director, Safety & Risk Management

Approved by: _____ Date 9-21-16

Scott Stark

SBVC/Vice President Administrative Services/Business Services

Approved by: _____ Date 9.21.16

Diana Rodriquez

SBVC President

Revised October 2016

Safety Program Approval Form

Safety Program: **Fire Prevention & Life Safety Program – Crafton Hills College – September 2016**

Reviewed by: _____ Date 09/14/16

Whitney J. Fields

SBCCD Director, Safety & Risk Management

Approved by: _____ Date 9/23/16

Michael Strong

CHC/Vice President Administrative Services/Business Services

Approved by: _____ Date 9/27/16

Dr. Wei Zhou

CHC President